



**Bluebonnet
Learning**
K-5 Math
EDITION 1

ENGLISH

Grade K

Module 5

**NUMBERS 10-20, COUNTING TO 100, AND
UNDERSTANDING WORK**
TEACHER EDITION

Teacher Edition

K–5 Math

Grade K

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**NUMBERS 10–20, COUNTING TO 100, AND
UNDERSTANDING WORK**

Acknowledgment

Thank you to all the Texas educators and stakeholders who supported the review process and provided feedback. These materials are the result of the work of numerous individuals, and we are deeply grateful for their contributions.

Notice

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Grade K • Module 5

Numbers 10–20, Counting to 100, and Understanding Work

OVERVIEW

Students have worked intensively within 10 and have often counted to 30 using the Rekenrek during Fluency Practice. This sets the stage for Module 5, where students clarify the meaning of the 10 ones and some ones within a teen number and extend that understanding to count to 100. In Topic A, students start at the concrete level, counting 10 straws.

T: Count straws with me into piles of ten.

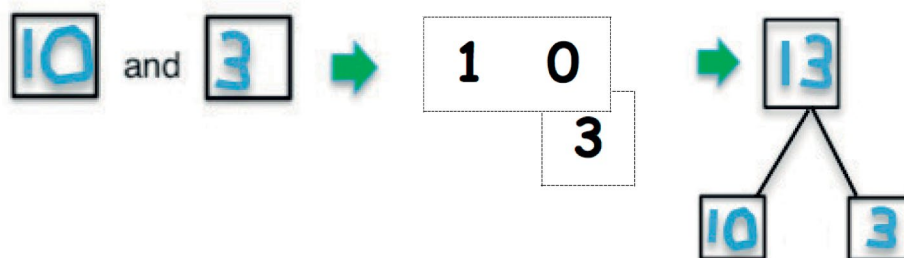
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. 1, 2, 3, ..., 8, 9, 10. 1, 2, 3, ..., 8, 9, 10.

T: Let's count the piles!

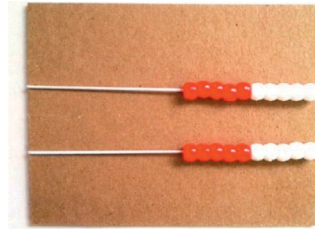
S: 1 pile, 2 piles, 3 piles, 4 piles.

Thus, Kindergarten students learn to comfortably talk about 10 ones, setting the foundation for the critical Grade 1 step of understanding 1 ten. They next separate 10 objects from within concrete and pictorial counts up to 20, analyzing the total as 10 ones and no ones or 10 ones and some ones (**K.2E, K.2F, K.5A**). They see two distinct sets which are then counted the Say Ten way: ten 1, ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8, ten 9, 2 tens. Students hear the separation of the 10 ones and some ones as they count, solidifying their understanding as they also return to regular counting: eleven, twelve, thirteen, ..., etc. Students then count backward from at most 20 with and without objects (**K.2A**).

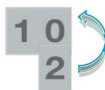
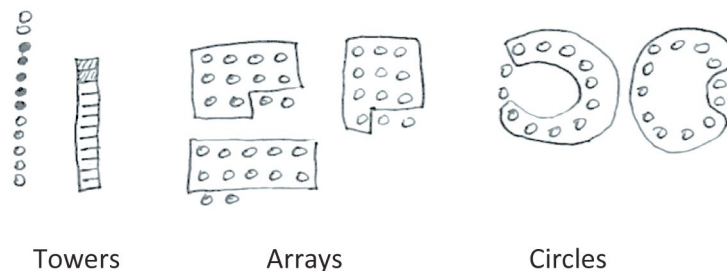
In Topic B, the two distinct sets of ones are composed, or brought together, through the use of the place value cards (pictured below) and number bonds. Students represent the whole number numerically while continuing to separate the count of 10 ones from the count of the remaining ones with drawings and materials (**K.2E, K.2F**). Emerging from Topic B, students should be able to model and write a teen number without forgetting that the 1 in 13 represents 10 ones (**K.2B**).



Topic C opens with students making a simple Rekenrek to 20 (pictured below) and modeling numbers thereon. The tens can be seen both as two lines with a color change at the five or two parallel unicolor fives. After constructing their Rekenreks, students use them as a linear model for counting forward and backward within 20. Additionally, the Rekenreks will be used later in Topic C for finding one more and one less than a given number.



In Topics A and B, students were shown sets in which the ten and ones were always separated when modeled pictorially or using materials. Topic C now shows sets of the total teen quantity represented both concretely and pictorially in different configurations: towers or linear configurations, arrays, and circles. As students count and compare sets in Topic C, they may choose to count each item individually, separate 10 ones and some ones, or use conservation to recognize the same quantities in different configurations. As always, students also use math talk to share their solution strategies (**K.2D**, **K.2E**). They also come to know each successive teen number as one larger than the previous number (**K.2A**). Students generate numbers one more than or one less than another number, use comparative language to compare sets of numbers, and generate sets more than, less than, or equal to a given number (**K.2E**, **K.2F**, **K.2G**).



I have 10 ones and 2 ones.
 10 and 2 is ____.
 $12 = 10 + \underline{\quad}$.

In Topic D, students extend their understanding of counting teen numbers to numbers from 21 to 100. They first count by tens both the Say Ten way—1 ten, 2 tens, 3 tens, 4 tens, etc.—and the regular way: twenty, thirty, forty, etc. They then count by ones to 100, first within a decade and finally across the decade (**K.5A**). Topic D involves the Grade 1 standard **1.2C** because students also write their numbers from 21 to 100. This extension into Grade 1 content serves as enrichment for students.

The writing of larger numbers has been included because of the range of activities they make possible. The writing of these numbers is not assessed nor emphasized, however.



In Topic E, students apply their skill with the decomposition and composition of teen numbers. In Lesson 21, they represent both compositions and decompositions as addition statements (**K.2E, K.2F**). In Lesson 22, they model teen quantities with materials in a number bond and hide one part. The hidden part is represented as an addition sentence with a hidden part (e.g., $10 + \underline{\quad} = 13$ or $13 = \underline{\quad} + 3$). The missing addend aligns Lesson 22 to the Grade 1 standard **1.5F**. In Lesson 23, students apply their skill with decomposition into 10 ones and some ones to compare the some ones of two numbers and thus to compare the teen numbers. They *stand* on the structure of the 10 ones and use what they know of numbers 1–9. Comparison of numbers 1–9 is a Kindergarten standard (**K.2E, K.2G, K.2H**).

In Lesson 24, students reason about situations to determine whether they are decomposing a teen number (as 10 ones and some ones) or composing 10 ones and some ones to find a teen number. They analyze their number sentences that represent each situation to determine if they started with the total or the parts and if they composed or decomposed, for example, $13 = 10 + 3$ or $10 + 3 = 13$ (**K.2E, K.2F**). Throughout the lesson, students draw the number of objects presented in the situation (**K.2D, K.2E**).

The lessons in Topic F investigate personal financial literacy. Students add to their recognition of U.S. coins by comparing dimes and quarters to other coins they already know—the penny and nickel (**K.4A**). In Lesson 25, students learn to differentiate between money earned (income) and money received as gifts. Students then consider different ways income can be earned (**K.9A, K.9B**). Lesson 26 investigates the connection between work and income, various jobs that are sources for income, and skills needed to perform these jobs (**K.9C**). Finally, in Lesson 27, students are introduced to the concept that income can be used to purchase items that are either needed or desired and the difference between the two (**K.9D**).

Throughout Module 5 students engage with the TEKS mathematical process standards by analyzing mathematical relationships as they count two separate parts within teen numbers: 10 ones and some ones (**K.1F**). Students apply their skill with decomposition and composition to represent story situations as addition statements (**K.1D**). Throughout the module, students select tools including number bonds and a Rekenrek to represent and solve problems (**K.1C**). They explain and justify how their representation relates to a situation. For example, students are routinely asked to explain how a number sentence relates to a number bond and a situation (**K.1G**).

Collaboratively Troubleshooting Student Misconceptions

It is common for students to make mistakes as they build their understanding of new or difficult concepts. As noted in the Program and Implementation Guide, *collaborative troubleshooting* is a routine to help teachers address students' misconceptions. The three steps to collaborative troubleshooting are

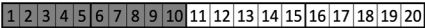
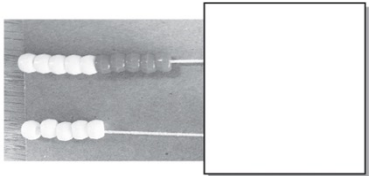
- (1) surface student thinking;
- (2) validate what the student did right; and
- (3) bridge to a better understanding.

The following table presents teachers with guidance on how to collaboratively troubleshoot misconceptions with students. The first three columns of the table outline misconceptions that commonly arise in this module, reasons why students may have the misconceptions, and associated TEKS. Teachers can use this information to help them decide which questions to ask students to surface thinking and to validate what the students understood or did correctly.



The last column of the table provides instructional strategies and sample guided questions that can support students as they build on what they already know and bridge to a better understanding.

Note: Teachers can also refer to the sample teacher–student dialogue in the “Collaboratively Troubleshooting Student Misconceptions” section of the Grade K Course Guide for additional guidance on implementing the three-step routine.

Topic	TEKS	Student Misconception	How to Bridge to a Better Understanding
Topics A and C	K.2C	Students skip objects or count objects more than once	<p>Notice how tools such as a number path provide structure for one-to-one correspondence.</p>  <p>Have students place objects on a number path or in a box, a bag, or other container as they count.</p>
Topics B and E	K.2B	Students use the pronunciation of teen numbers as a basis for writing digits (e.g., fourteen is written as 41 instead of 14)	<p>Notice how Say Ten counting highlights the base-ten structure within teen numbers. Place value cards support understanding that the digit 1 in a teen number represents 10 ones.</p> <p>Include Say Ten Counting and Decompose Teen Numbers fluency activities when customizing and preparing to teach this topic.</p>
Topic D	K.2D	Students count all, even with small quantities (e.g., “I have to count each object to tell how many.”)	<p>Notice how counting within 20 on a Rekenrek the Say Ten way helps students visualize numbers and recognize the 10 in a teen number.</p>  <p><i>Student View: Ten 5</i></p> <p>Include opportunities to count on a Rekenrek the Say Ten way and to do other fluency activities like it when customizing and preparing to teach this topic.</p>



Topic	TEKS	Student Misconception	How to Bridge to a Better Understanding
Topic F	K.4A	Students do not recognize the heads or tails side of a coin	<p>Give students additional opportunities to examine and interact with each coin. For example, students can</p> <ul style="list-style-type: none"> ▪ use a magnifying glass to study each side of a coin and ▪ use crayons to make coin rubbings on paper and then put the rubbings into a personal anchor chart.

Focus Grade Level Standards

Number and Operations¹

The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:

- K.2A** count forward and backward to at least 20 with and without objects;
- K.2B** read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures;
- K.2C** count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set regardless of their arrangement or order;
- K.2D** recognize instantly the quantity of a small group of objects in organized and random arrangements;
- K.2E** generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20;
- K.2F** generate a number that is one more than or one less than another number up to at least 20;
- K.2G** compare sets of objects up to at least 20 in each set using comparative language;
- K.2H** use comparative language to describe two numbers up to 20 presented as written numerals.

¹K.2A is addressed in Module 1

Number and Operations

The student applies mathematical process standards to identify coins in order to recognize the need for monetary transactions. The student is expected to:

- K.4A** identify U.S. coins by name, including pennies, nickels, dimes, and quarters.

Algebraic Reasoning

The student applies mathematical process standards to identify the pattern in the number word list. The student is expected to:

- K.5A** recite numbers up to at least 100 by ones and tens beginning with any given number.

Personal Financial Literacy

The student applies mathematical process standards to manage one’s financial resources effectively for lifetime financial security. The student is expected to:

- K.9A** identify ways to earn income;
- K.9B** differentiate between money received as income and money received as gifts;
- K.9C** list simple skills required for jobs;
- K.9D** distinguish between wants and needs and identify income as a source to meet one’s wants and needs.

Foundational Standards

- PK4.V.A.3** Counts up to 10 items and demonstrates cardinality by communicating that the last number indicates how many items are in the set.
- PK4.V.B.1** Uses objects, pictorial models, and/or a verbal word problem to represent adding up to 5 objects.
- PK4.V.B.2** Uses objects, pictorial models, and/or a verbal word problem to represent subtracting objects from a set of 5.



TEKS Mathematical Process Standards

The student uses mathematical processes to acquire and demonstrate mathematical understanding.

The student is expected to:

- K.1C** select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
- K.1D** communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
- K.1F** analyze mathematical relationships to connect and communicate mathematical ideas;
- K.1G** display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Overview of Module Topics and Lesson Objectives

TEKS	ELPS	Topics and Objectives	Days
K.2A K.2E K.5A K.2C K.2D K.2F	3.F 4.F	A Count 10 Ones and Some Ones Lesson 1: Count straws into piles of ten; count the piles as 10 ones. Lesson 2: Count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and ___ ones. Lesson 3: Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and ___ ones. Lesson 4: Count straws the Say Ten way to 19; make a pile for each ten. Lesson 5: Count straws the Say Ten way to 20; make a pile for each ten.	5
K.2A K.2B K.2E K.2F K.2C K.2D K.5A	3.G 4.F 5.B	B Compose Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen Numbers Lesson 6: Model with objects and represent numbers 10 to 20 with place value or place value cards. Lesson 7: Model and write numbers 10 to 20 as number bonds. Lesson 8: Model teen numbers with materials from abstract to concrete. Lesson 9: Draw teen numbers from abstract to pictorial.	4
K.2A K.2C K.2D K.2E K.2F K.2G K.2B	1.E 2.C 2.E 3.B 4.F 5.F 5.G	C Decompose Numbers 11–20, and Count to Answer “How Many?” Questions in Varied Configurations Lesson 10: Count forward and backward by ones on the Rekenrek. Lesson 11: Generate a number that is one more than another number up to 20. Lesson 12: Generate a number that is one less than another number up to 20. Lesson 13: Show, count, and write to answer <i>how many</i> questions in linear and array configurations. Lesson 14: Show, count, and write to answer <i>how many</i> questions with up to 20 objects in circular configurations. Lesson 15: Use comparative language to compare sets of up to 20 objects. Lesson 16: Generate sets that are <i>more than</i> , <i>less than</i> , or <i>equal to</i> a given number.	7
		Mid-Module Assessment Task: Topics A–C	2



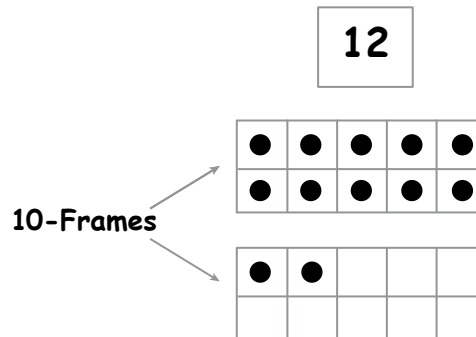
TEKS	ELPS	Topics and Objectives	Days
K.5A K.2B K.2D K.2E K.2F	1.A 2.E 3.C	D Extend the Say Ten and Regular Count Sequence to 100 Lesson 17: Count up and down by tens starting with any multiple of ten within 100. Lesson 18: Count within tens by ones. Lesson 19: Count across tens when counting by ones through 40. Lesson 20: Count across tens by ones to 100 with and without objects.	4
K.2D K.2E K.2F K.2G K.2H K.2B K.5A	2.I 3.C 5.F 5.G	E Represent and Apply Compositions and Decompositions of Teen Numbers Lesson 21: Represent teen number compositions and decompositions as addition sentences. Lesson 22: Represent teen number decompositions as 10 ones and some ones, and find a hidden part. Lesson 23: Decompose teen numbers as 10 ones and some ones; compare <i>some ones</i> to compare the teen numbers. Lesson 24: Reason about and represent situations, decomposing teen numbers into 10 ones and some ones and composing 10 ones and some ones into a teen number.	4
K.4A K.9A K.9B K.9C K.9D	1.A 1.F 2.D 3.E 3.J 4.F 5.F	F Understanding Work Lesson 25: Understand gifts, income, and ways to earn income. Lesson 26: Define jobs as sources of income. Lesson 27: Understand the difference between needs and wants.	3
		End-of-Module Assessment Task: Topics D–F	2
Total Number of Instructional Days			31

Terminology

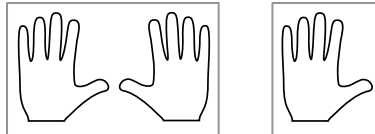
A Spanish cognate is included when the term has a similar meaning and spelling in English. Not every term in this module has a Spanish cognate.

New or Recently Introduced Terms

- **10-frame:** a rectangle made up of two rows of five boxes; used as a counting tool to model numbers

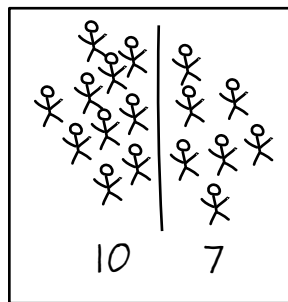


- **10 and:** a way to describe numbers 11 through 19 (e.g., 15 is 10 and 5)



15 is 10 and 5.

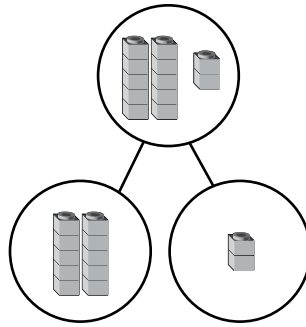
- **10 ones and some ones:** a group of 10 ones and a group of some more ones; used to show numbers 11 through 19



We can show the number 17 using 10 ones and 7 ones.



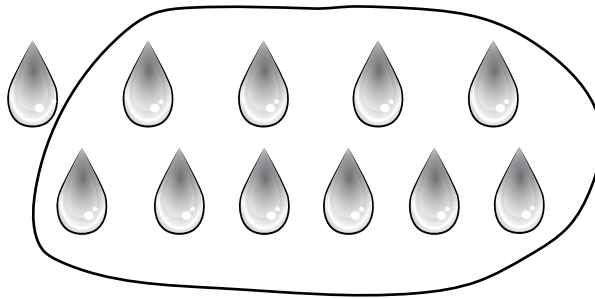
- **10 plus:** one part of an addition sentence



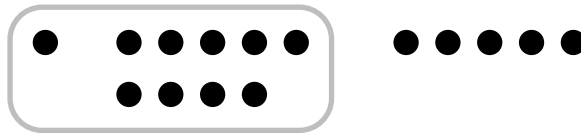
$$10 + 2 = 12$$

10 plus 2 equals 12.

- **Circle 10 ones (Círculo):** to draw a circle around 10 objects



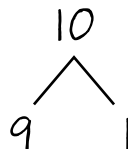
- **Compose (Componer):** to join together or group



$$1 + 9 + 5$$

$$\begin{array}{c} \diagdown \quad / \\ 10 + 5 = 15 \end{array}$$

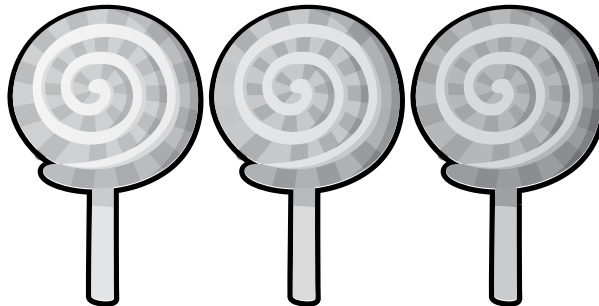
- **Decompose (Decomponer):** to break into parts or separate



- **Dime:** a coin worth 10 cents



- **Earn:** to get money from doing a job or selling something

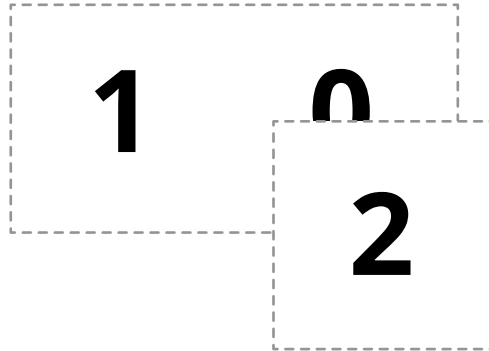


I earn money selling lollipops.

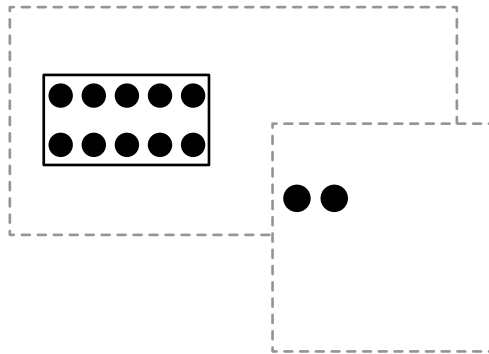
- **Gift:** something that is given, not earned



- **Place value cards:** cards used to show that a teen number has 10 ones and some more ones the cards have numerals on the front and dots on the back

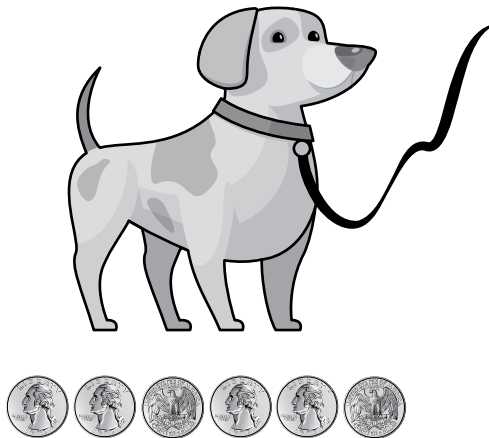


Place value cards (front)



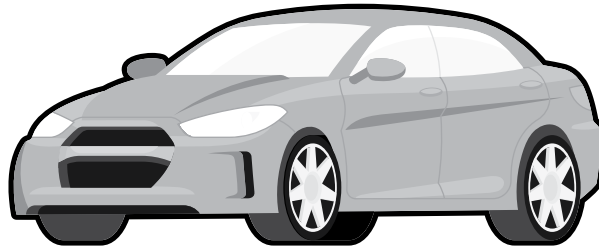
Place value cards (back)

- **Income:** money people earn from doing work



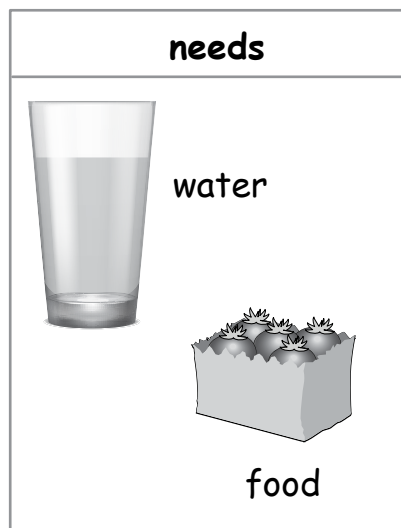
She walked the dog and earned 6 quarters as income.

- **Job:** the work people do to make money or earn income



My aunt's job is to fix cars.

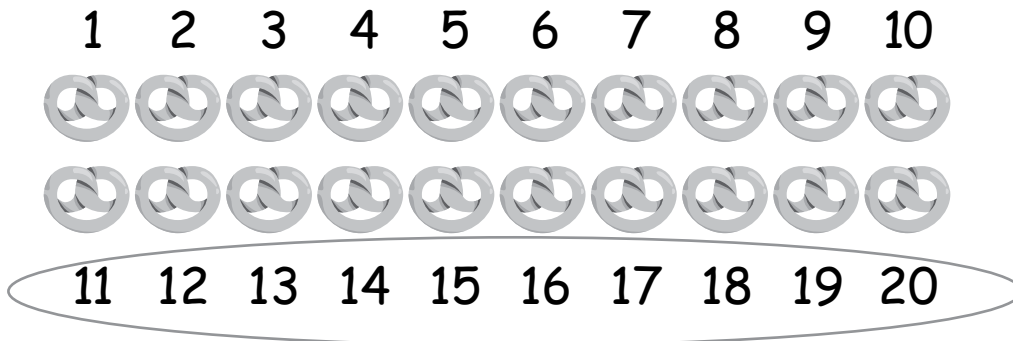
- **Needs:** things that someone must have to stay alive



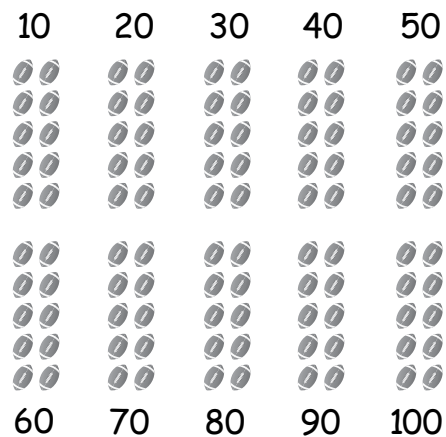
- **Quarter:** a coin worth 25 cents



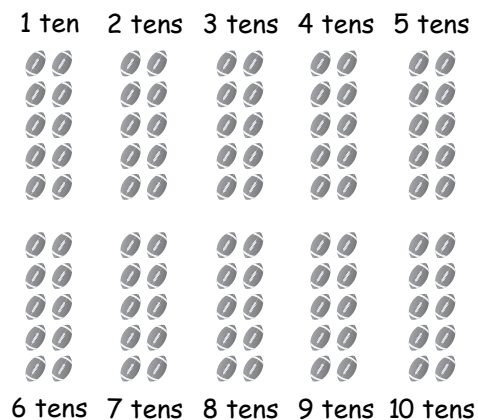
- **Regular counting by ones from 11 to 20:** counting objects or numerals one at a time between 11 and 20



- **Regular counting by tens to 100:** counting objects or numerals up to 100 that are grouped by tens



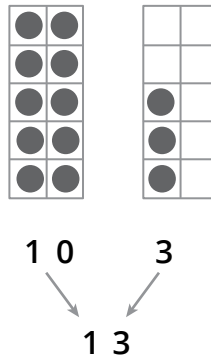
- **Say Ten counting by tens to 100:** counting objects or numerals up to 100 that are grouped by tens and saying the number of tens



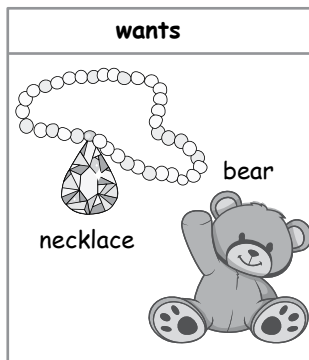
- **Skills:** the things that people know how to do



- **Teen numbers:** numbers that contain 10 ones and some more ones and are numerals that are between 11 and 19

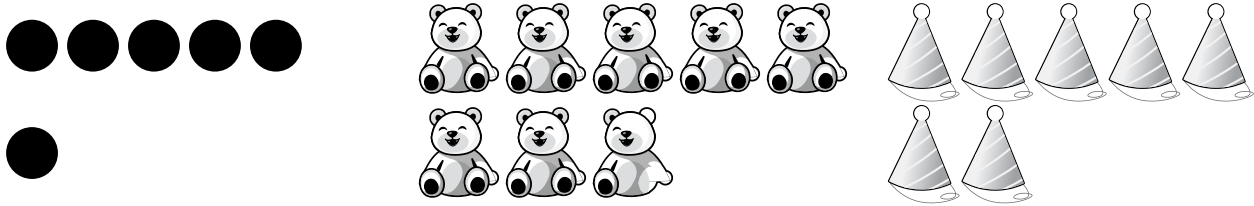


- **Wants:** things that are not needed in order to stay alive, but are wished for

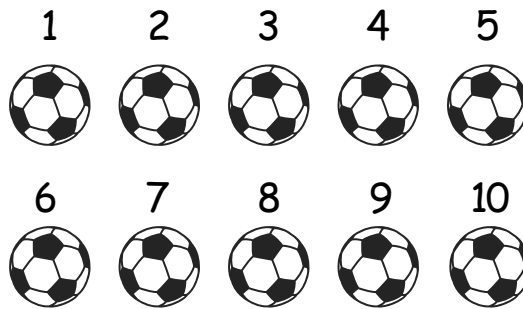


Familiar Terms and Symbols²

- **5-group** (*Grupo de 5*): objects in a row of 5 and a row of some more.



- **Count 10 ones** (*Contar*): counting objects one at a time until there are 10



- **Dot path**: a counting tool made of 10 boxes that have a dot inside; 5 dots are one color and the other 5 dots are another color

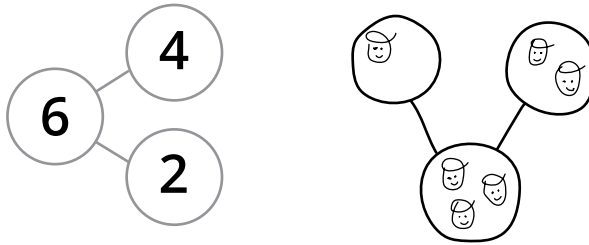


²These are terms and symbols students have used or seen previously.

- **Nickel:** a coin worth 5 cents



- **Number bond:** a model that shows parts and the whole



- **Number path:** a line of boxes showing numbers in order counting up by ones, with one number in each box

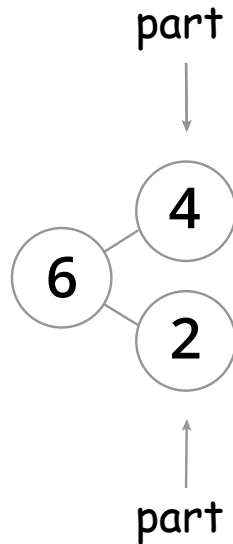


- **Number tower (Torre de números):** a stack of cubes or boxes, one on top of another



“I have 2 cubes. I put on 1 more cube. Now I have 1, 2, 3 cubes.”

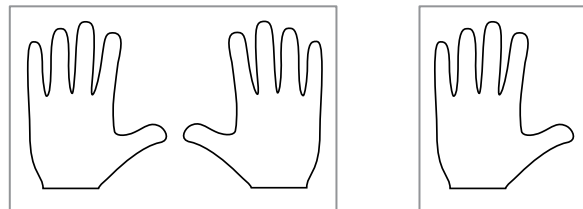
- **Part** (*Parte*): a number that is used to make the whole, or total



- **Penny:** a coin worth 1 cent

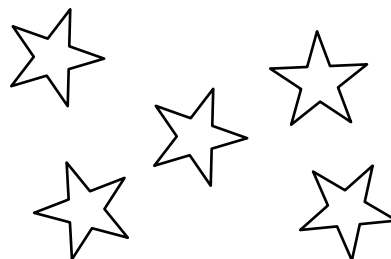


- **Say Ten counting:** a way to count numbers between 11 and 20 by saying “10 ones and some more ones”



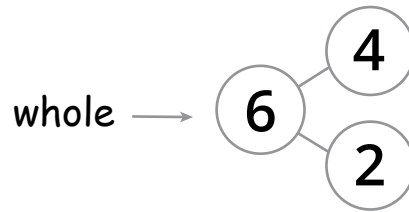
15 the Say Ten Way is: Ten 5

- **Total** (*Total*): how many altogether



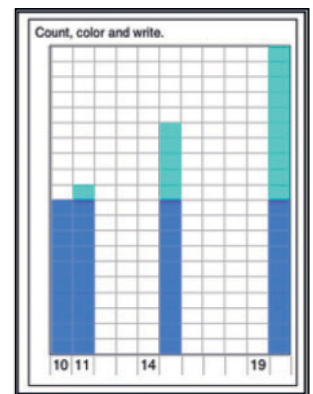
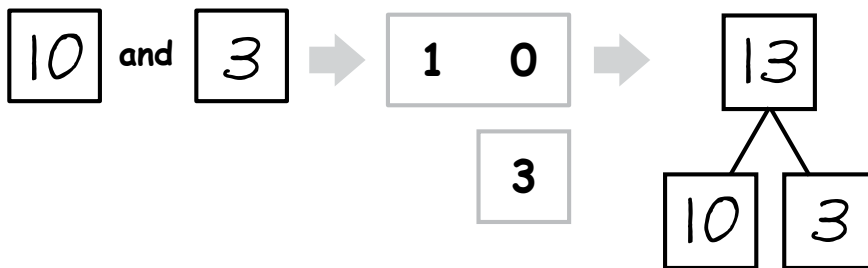
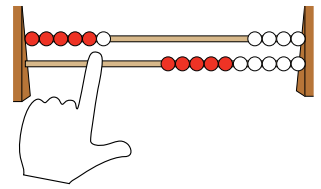
There are 5 stars. 5 is the total.

- **Whole:** how many altogether



Suggested Tools and Representations

- 50 sticks or straws for each group of 2 students
- Student-made Rekenrek (pictured to the right): 10 red and 10 white pony beads, 1 cardboard strip, 2 elastics
- 1 egg carton per pair of students with 2 slots cut off to make a carton with 10 slots
- Place value cards
- Objects to put in the egg carton such as mandarin oranges, plastic eggs, or beans
- Single and double 10-frames
- Linking cubes: ideally 10 of two different colors per student
- Number bond template
- Collection of U.S. Coins (1 penny, nickel, dime, and quarter (real or plastic) per student)



Module 5 Lesson Overview Materials List

Lesson	Teacher Materials	Student Materials <i>All counts are per student unless otherwise indicated.</i>
1	Large 5-group cards (T)*	5-group cards (T) 1 egg carton cut to have 10 compartments (per pair) 40 straws 10 bags with the following items in each: 8 clothespins 8 pasta shells 8 beads 9 3-inch by 5-inch cards 9 pennies 9 crayons 10 erasers 10 linking cubes 10 walnuts in the shell 10 play dollars
2	Large 5-group cards (T) 20-bead Rekenrek 10 bags with the following items in each: 18 clothespins 20 pasta shells 13 beads 16 pennies 11 crayons 10 erasers 14 linking cubes 12 walnuts in the shell 10 play dollars 15 counting chips	5-group cards (T) About 40 straws (per pair) 1 egg carton cut to have 10 compartments (per pair)
3	Large 5-group cards (T)	5-group cards (T) Bag with 20 counters Find 10 (T)
4	Dot cards of 6 (T) 19 linking cubes	Dot cards of 6 (T) Personal white board Circle 10 (T) Bag of 19 counters 19 straws (per pair)

Lesson	Teacher Materials	Student Materials <i>All counts are per student unless otherwise indicated.</i>
5	Dot cards of 7 (T)	Dot cards of 7 (T) Personal white board Circle 10 ones (T) 20 straws (per pair)
6	Large 5-group cards (T) Dot cards of 8 (T) Large place value cards (T)	5-group cards (T) Dot cards of 8 (T) 20 straws (per pair) 1 place value 10 card (T) 5-group cards 1–9 (T) Two sets of 10 linking cubes (10 in one color and 10 in another color) Personal white board (per pair)
7	Dot cards of 8 (T) Large place value cards (T)	Dot cards of 8 (T) 1 place value 10 card (T) 5-group cards 1–9 (T) 20 two sided counters in a clear plastic bag Number bond (T) Personal white board
8	Dot cards of 8 (T) Number bond cards (T)	Personal white board Bag with 20 small counters 1 place value 10 card (T) 5-group cards 1–9 (T) Bag of 10 linking cubes in one color and 10 linking cubes in another color (per pair)
9	Dot cards of 9 (T) Large 5-group cards (T)	Dot cards of 9 (T) Bag with 20 small counters Work mat Double 10-frame (T) Personal white board
10	20 Linking cubes 20-bead Rekenrek	Personal white board Bag of 10 red and 10 white pony beads Two 12-inch lengths of elastic One 2.75-inch by 5.5-inch piece of chipboard (or cardboard strip) with an indentation
11	20-bead Rekenrek Sentence Frame (T)	Personal Rekenrek Two sets of 10 linking cubes (10 in one color and 10 in another color) Personal white board



Lesson	Teacher Materials	Student Materials <i>All counts are per student unless otherwise indicated.</i>
12	Sentence Frame (T)	Two sets of 10 linking cubes (10 in one color and 10 in another color) Personal white board
13	1 stick of 10 linking cubes that are the same color 10 loose cubes of a different color	2 sticks of 10 linking cubes that are different colors Personal white board 2 sticks of 10 linking cubes with a color change at five Personal Rekenrek 1 place value 10 card (T) 5-group cards 1–9 (T) (per pair)
14	Pre-drawn arrays Large place value cards (T)	Personal white board Teen counting array (T) Double 10-frame mat (T) Teen numeral and dot cards (only numeral cards from 10–20) (T) Paper plate or round mat Bag of 20 counters (per pair)
15	1 stick of 10 linking cubes that are the same color 10 loose cubes of a different color Comparison words chart (T)	2 sticks of 10 linking cubes that are different colors Personal white board Bag of small counters Blank piece of paper
16	Large place value cards (T) Comparison words chart (T) 20 small objects Number path to 20 (T)	Counting teens (T) Set of 20 connecting cubes Bag of 20 counters
17	Pre-drawn circular configurations Large place value cards (T) 100-bead Rekenrek	Personal white board Teen circular-counting (T) Donuts (T) 14 cubes Set of 10 small 10-frame cards (T)
18	100-bead Rekenrek 10 pieces of tagboard	20 counters 1 place value 10 card (T) 5-group cards 1–9 (T) Small 10-frame cards (T) 2-hand cards (T)
19	Large 5-group cards (T)	Personal white board 1 bag of 20 counters (per pair) Personal Rekenrek



Lesson	Teacher Materials	Student Materials <i>All counts are per student unless otherwise indicated.</i>
20	Large 5-group cards (T) 100-bead Rekenrek	Number bond (T) Personal Rekenrek 9 small 10-frame cards (T) 2 empty 10-frame cards (T) 20 counters Blank Paper
21	Dot cards of 7 (T) Prepared images of arrays and circular configurations Large 5-group cards (T)	Personal Rekenrek Bag of twenty 2-color beans Number bond (T) Personal white board
22	Dot cards of 7 (T)	Personal Rekenrek 40 centimeter cubes Number bond (T) per pair Personal white board (per pair)
23	Dot cards of 8 (T)	Personal Rekenrek 20 linking cubes Personal white board
24	Dot cards of 8 (T) 12 pieces of red construction paper	Teen numeral and dot cards (T) per pair Picture and word problem (T) Number bond (T) Personal white board
25	Coins table (T) Collection of U.S. coins Chart paper Markers	Personal white board 1 penny 1 nickel 1 dime 1 quarter
26	1 penny 1 nickel 1 dime 1 quarter Coins graph (T) Chart paper Markers	
27	Coins graph (T) Template 1 Template 2 (cut into cards)	

**(T) Template provided in TE, Practice, and/or Learn*





Topic A

Count 10 Ones and Some Ones

K.2A, K.2E, K.5A, K.2C, K.2D, K.2F

Focus Standards:	K.2A	Count forward and backward to at least 20 with and without objects.
	K.2E	Generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20.
	K.5A	Recite numbers up to at least 100 by ones and tens beginning with any given number.
Instructional Days:	5	
Coherence	-Links from:	GK M1 Numbers to 10
	-Links to:	G1–M2 Introduction to Place Value Through Addition and Subtraction Within 20

In Topic A, students count two separate parts within teen numbers: 10 ones and some ones. They start by counting piles of 10 straws to understand 10 ones. In Lesson 2, students separate 10 ones and some ones from within teen quantities using an egg carton cut off to have 10 compartments. In Lessons 1 and 2, students then count backward from at most 20 with and without objects. Continuing with decomposing, in Lesson 3, students circle 10 ones within teen quantities at the pictorial level. In Lessons 4 and 5, students count their 10 ones and some ones to 20 the Say Ten way (e.g., ten 1, ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8, ten 9, 2 tens).



A Teaching Sequence Toward Proficiency in Counting 10 Ones and Some Ones

Objective 1: Count straws into piles of ten; count the piles as 10 ones.
(Lesson 1)

Objective 2: Count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and ___ ones.
(Lesson 2)

Objective 3: Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and ___ ones.
(Lesson 3)

Objective 4: Count straws the Say Ten way to 19; make a pile for each ten.
(Lesson 4)

Objective 5: Count straws the Say Ten way to 20; make a pile for each ten.
(Lesson 5)

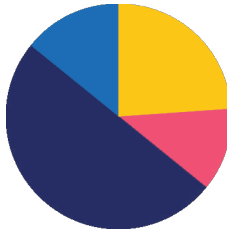


Lesson 1

Objective: Count straws into piles of ten; count the piles as 10 ones.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(6 minutes)
■ Concept Development	(25 minutes)
■ Student Debrief	(7 minutes)
Total Time	(50 minutes)



NOTE ON FLUENCY:

Throughout the module, teachers are encouraged to make appropriate adjustments to fluency activities to account for varying student needs.

Fluency Practice (12 minutes)

- Finger Counting from Left to Right **K.2A** (2 minutes)
- 5-Group Flashes: Partners to 5 **K.2I** (4 minutes)
- 5-Group Flashes: Partners to 10 **K.2I** (6 minutes)

Finger Counting from Left to Right (2 minutes)

Note: This variation of counting the Math Way maintains students' abilities to model counting sequences within 10 on fingers.

Count by ones within 10 on fingers from left to right, from pinky on the left hand as 1 to pinky on the right hand as 10.

Hover the fingers as if playing the piano. Drop each finger as it is counted, and leave it down. Start and end at different numbers (e.g., count from 5 to 7). (The five fingers of the left hand have played. Students say, "6, 7," while playing the thumb and pointer finger of the right hand.)

5-Group Flashes: Partners to 5 (4 minutes)

Materials: (T) Large 5-group cards (Fluency Template 1)
(S) 5-group cards (Fluency Template 2)

Note: Reviewing compositions of 5 leads to proficiency with the fluency for the grade, **K.2I**, add and subtract within 10.

- T: (Show 4 dots.) How many dots do you see?
S: 4.
T: How many more to make 5?



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

For students who need support with developing oral language skills, including some emergent bilingual students, alternate between choral response and written response. Provide personal white boards for students to write the answer during frame flashes.

S: 1.

T: Say the number sentence.

S: 4 and 1 makes 5.

Continue with the following possible sequence: 3, 2, 1, 4, 2, 3, 5, 0, 5. Have students play with a partner. Give pairs sets of 5-group cards.

5-Group Flashes: Partners to 10 (6 minutes)

Materials: (T) Large 5-group cards (Fluency Template 1) (S) 5-group cards (Fluency Template 2)

Note: Reviewing partners to 10 prepares students to decompose 10 in the Application Problem.

T: (Show 9 dots.) How many dots do you see?

S: 9.

T: How many more does 9 need to be 10?

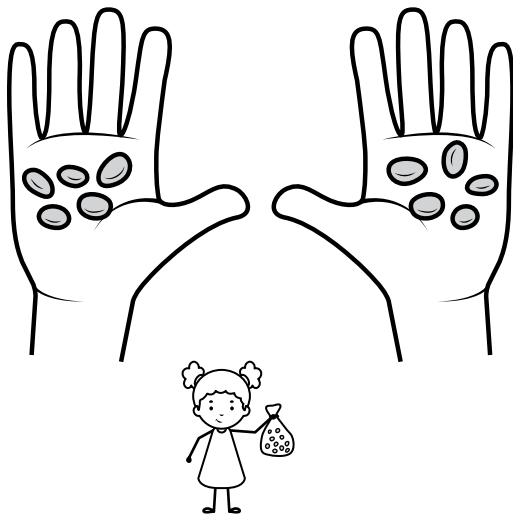
S: 1.

Repeat for possible sequence: 8, 5, 7, 6, 1, 4, 3, 5, 2, 9. Have students play with a partner. Give pairs sets of cards.

Application Problem (6 minutes)

Marta loves to share her raisins at recess. She counted 10 raisins into the hands of her friend Joey. Draw a picture of the raisins in Joey's hands.

Note: There is more than one possible solution to this problem.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

For students who have demonstrated proficiency, provide extensions to the Application Problem such as:

1. If Marta had 15 raisins to start with, how many does she have left?
2. How many more raisins does Marta need to have 10 in her hand?
3. Draw a picture to show Marta's raisins.



Concept Development (25 minutes)

Materials: (S) 1 egg carton cut to have 10 compartments for each pair of students, 10 bags with different items in each (suggestions to the right), 40 straws

Note: While a primary objective of this lesson is to count straws into piles of ten and count the piles as 10 ones, a secondary objective is to practice counting down from a given number within 10. Incorporate practice of this skill into the lesson as appropriate.

T: Count to find out how many slots there are in your egg carton. Wait for the signal to tell me. (Pause. When all are ready, give the signal.)

S: 10.

T: Each team will explore 10 bags. Find out which bags have 10 things in them.

Have students in pairs investigate each bag by placing the materials into the egg carton to see if there are enough to count 10 ones. After counting the items in the bag, students will pass it to the next pair on a signal.

T: (Allow time for students to investigate all 10 bags.) Discuss with the pair next to you, which bags had 10 things?

S: The erasers, the linking cubes, the walnuts, and the play dollars!

T: How many times did we count 10 things?

S: 4 times!

T: Now, we are going to count these straws into 4 piles of 10 to match the erasers, linking cubes, walnuts, and play dollars.

T: Count with me to match the number of erasers.

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

T: 1 pile! Let's take this pile out of our egg carton and put it aside. As we remove each item, count back from ten.

S: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.

T: Let's count another pile to match the number of linking cubes.

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

T: How many piles of 10 do we have now?

S: 2 piles!

T: Take this pile out of our egg carton and put it aside. As we remove each item, count back from ten.

S: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.

T: Let's count another pile to match the number of walnuts.

Continue with the walnuts and play dollars.

T: Let's count how many piles of 10 we made.

Bag Contents:

8 clothespins
8 pasta shells
8 beads
9 3-inch by 5-inch cards
9 pennies
9 crayons
10 erasers
10 linking cubes
10 walnuts in the shell
10 play dollars

- S: 1 pile, 2 piles, 3 piles, 4 piles.
 T: How many straws are in each pile?
 S: 10 straws.
 T: Let's count the bags of 10, too.
 S: 1 bag, 2 bags, 3 bags, 4 bags.
 T: How many things are in each bag?
 S: 10 things.
 T: Talk to your partner about what is the same and different about the bags of things and the piles of straws.
 T: (Allow time.) How many times did we count **10 ones** when we were counting the straws?
 S: 4.
 T: How many times did we count 10 things when we were counting the things in the bags?
 S: 4.
 T: How many of the bags didn't have 10 things?
 S: 6 bags!

Problem Set (5 minutes)

Students should do their personal best to complete the Problem Set within the allotted time. Have students circle the pictures that show 10 things.

Note: Students have been counting linear, array, circular, and scatter configurations through 10 since the first module (K.2D, K.2E). They have further developed skill in circling pictorial sets in Module 4 when learning to add and subtract.

Student Debrief (7 minutes)

Lesson Objective: Count straws into piles of ten; count the piles as 10 ones.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience. While the main objective of this lesson is to count straws into piles of ten and count the piles as 10 ten ones, a secondary objective is to count down from ten. Incorporate the practice of this skill into today's lesson as appropriate.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief.

Name Ben Date _____

Circle the groups that have 10 ones.

How many times did you count 10 ones? 4

Count back from 10.
 X out a bike each time you say a number.



- Have students bring their Problem Set to the meeting area and discuss with a partner which things they circled and why. Suggested sentence frames:
 - “I circled _____ because I counted 10 of them.”
 - “I didn’t circle _____ because I counted _____ of them.”
- Have them count the number of sets of 10 ones they counted.
- Help students to remember that there were also 4 piles of 10 straws and 4 bags with 10 things in them. Have them discuss how the Problem Set is the same as and different from their work with the bags and straws. Would you ever put apples or soccer balls in bags of 10?
- How was counting the bikes different from counting the other groups?
- To review and apply **K.2I**, discuss how many objects the other groups are missing to make 10. Have students draw in the missing objects and circle all the sets of 10 ones. “Now, how many times did we count 10 ones?”

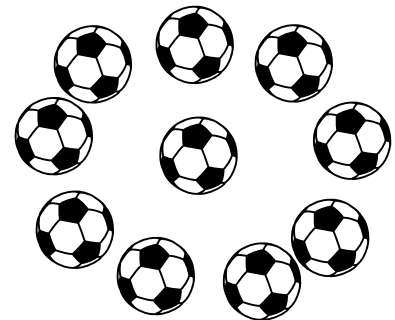
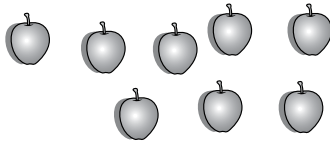
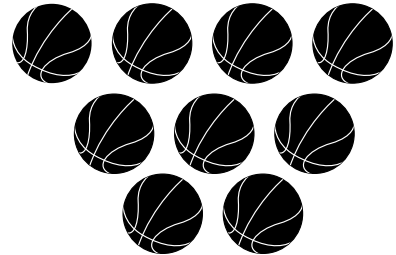
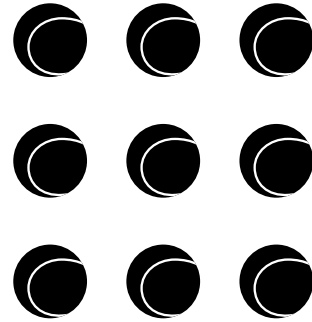
Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students’ understanding of the concepts that were presented in today’s lesson and planning more effectively for future lessons. The questions may be read aloud to students.

Name _____

Date _____

Circle the groups that have 10 ones.



How many times did you count 10 ones? _____

Count back from 10.

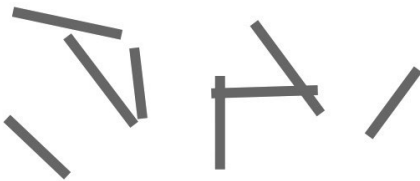
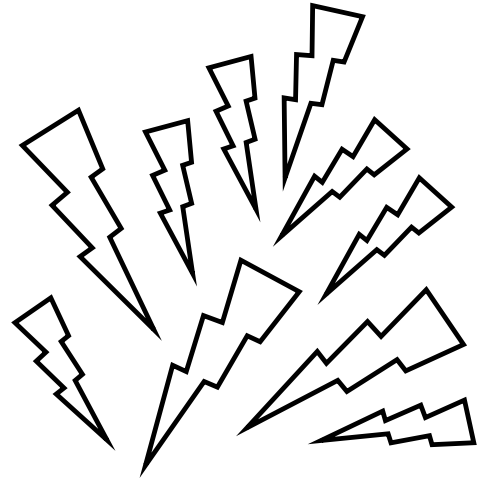
Put an X on each bike each time you say a number.



Name _____

Date _____

Circle the groups that have 10 things.



How many times did you count 10 things? _____

Count back from 10.

Put an X on each sun each time you say a number.



Name _____

Date _____

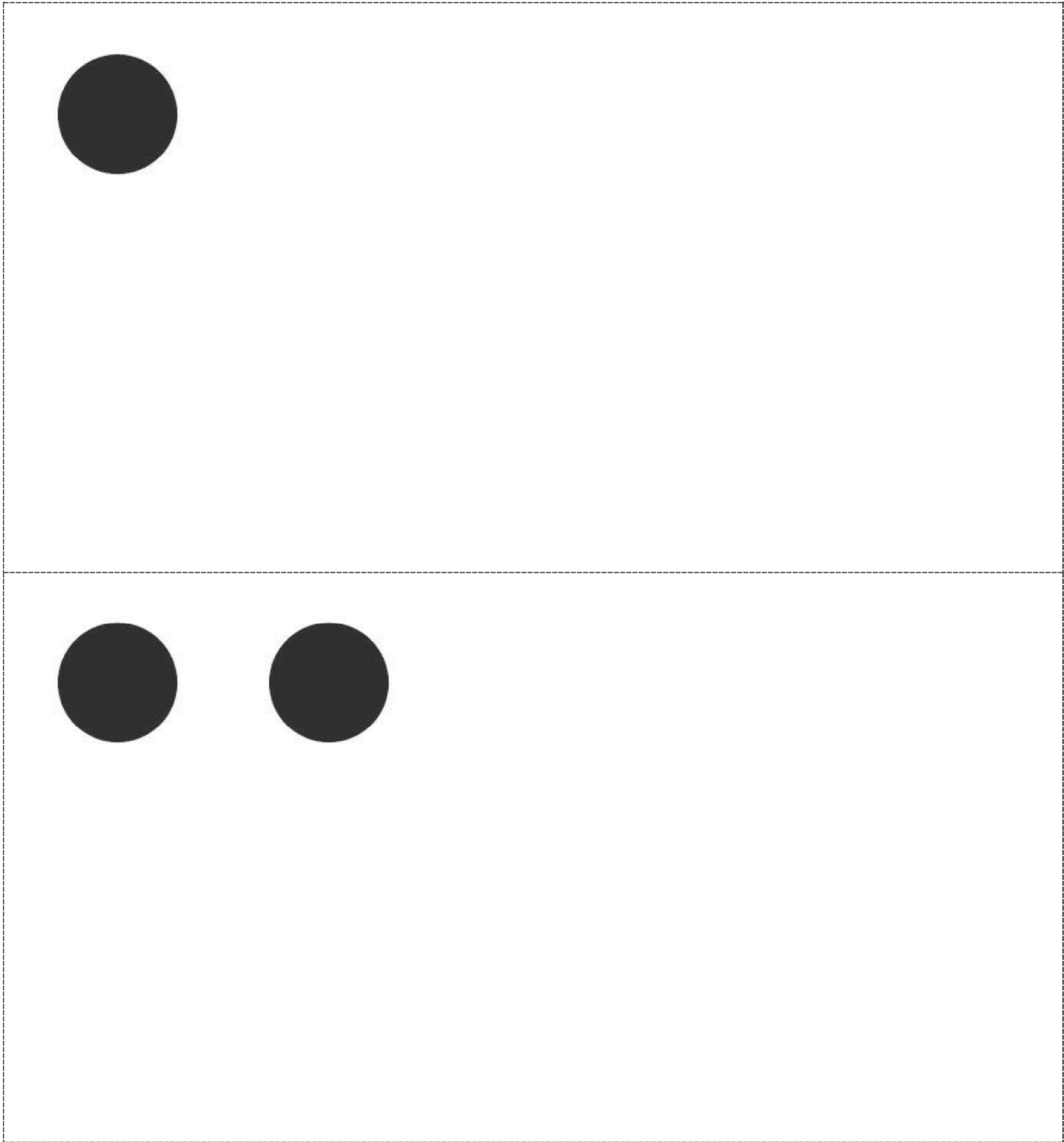
Circle 10.

Count the number of times you circled 10 ones. Tell a friend or an adult how many times you circled 10 ones.

Count back from 10.

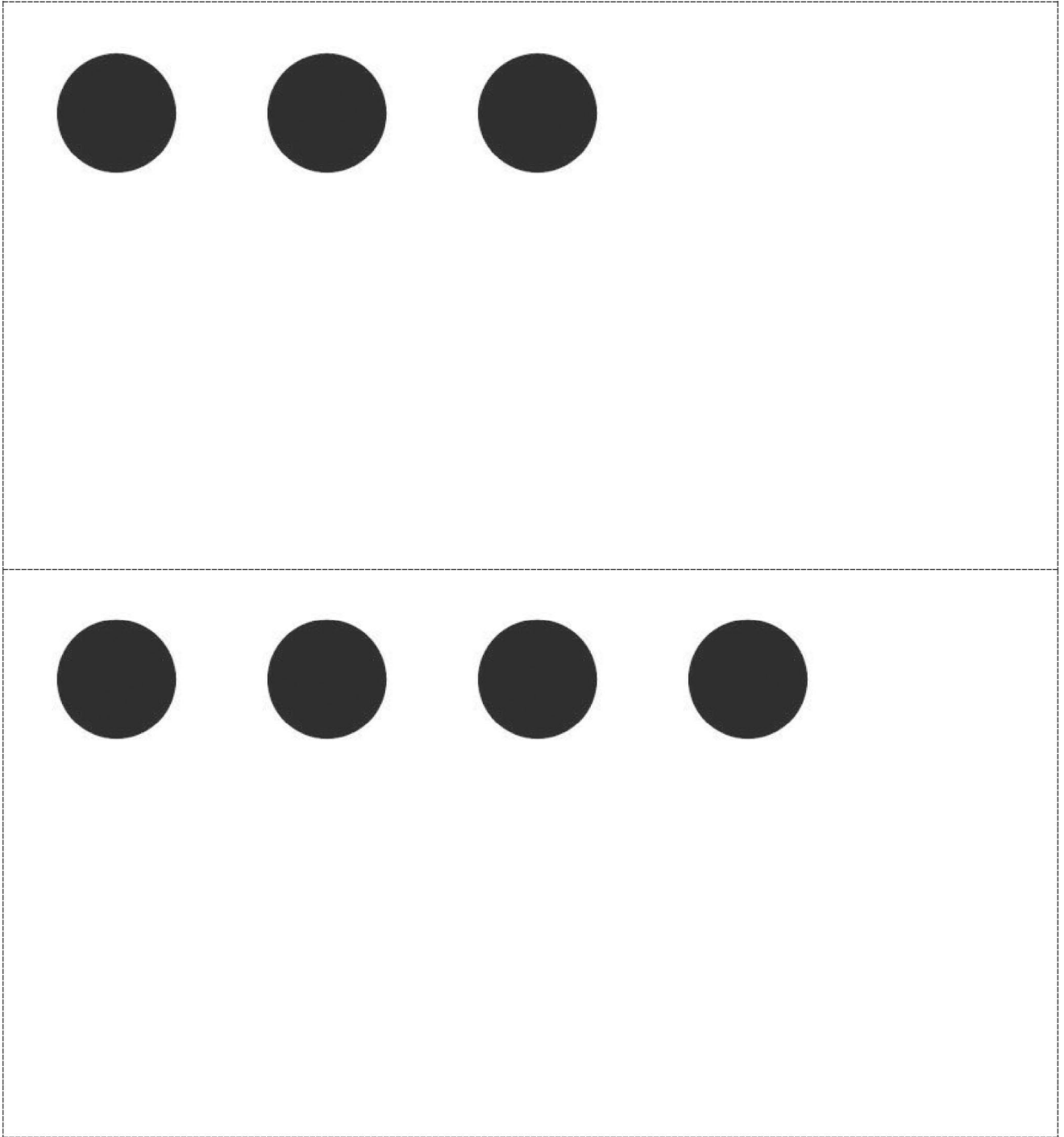
Put an X on each star each time you say a number.





large 5-group cards (Copy on card stock and cut. Save the full set.)

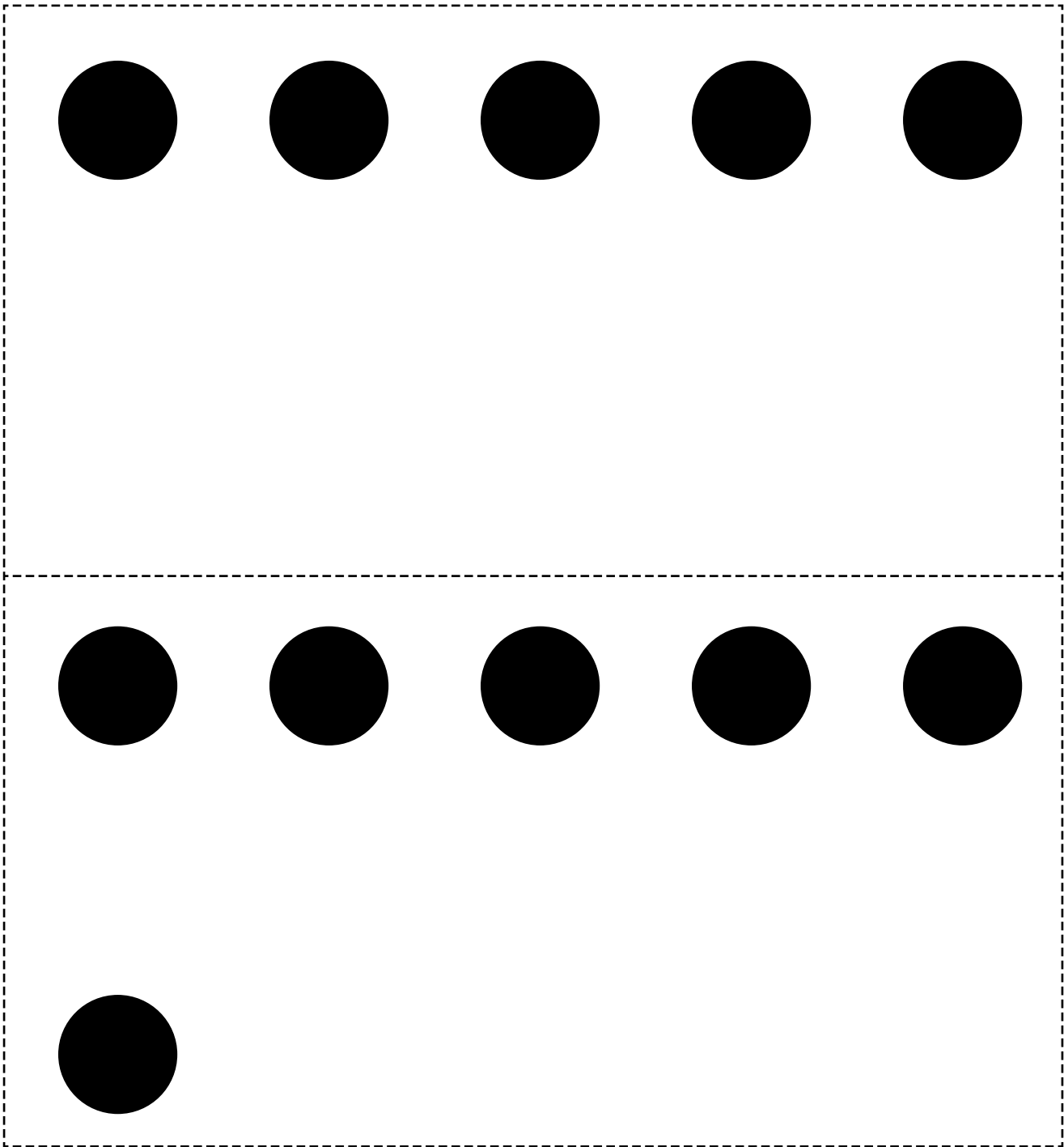




large 5-group cards (Copy on card stock and cut. Save the full set.)

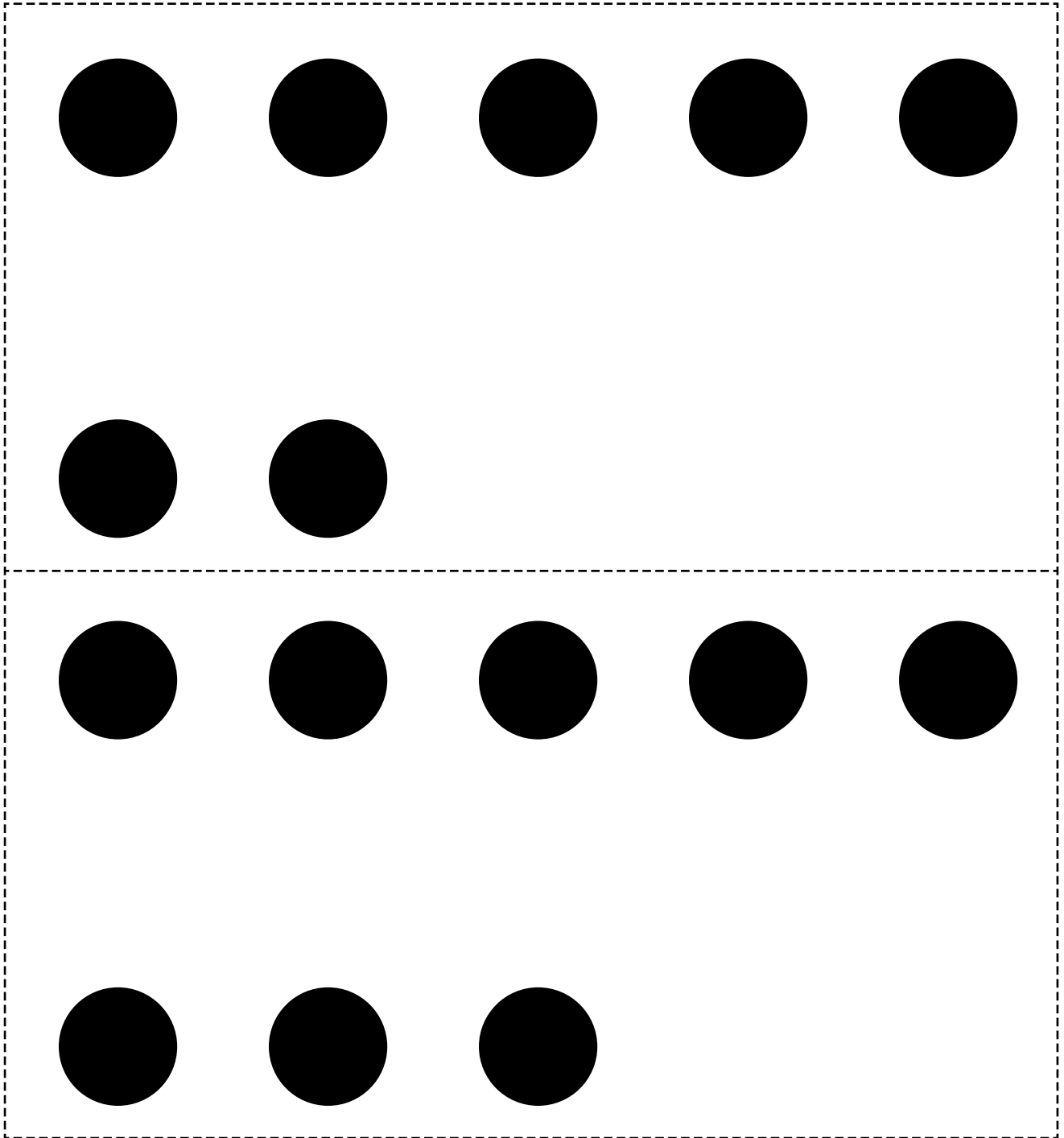


Lesson 1: Count straws into piles of ten; count the piles as 10 ones.



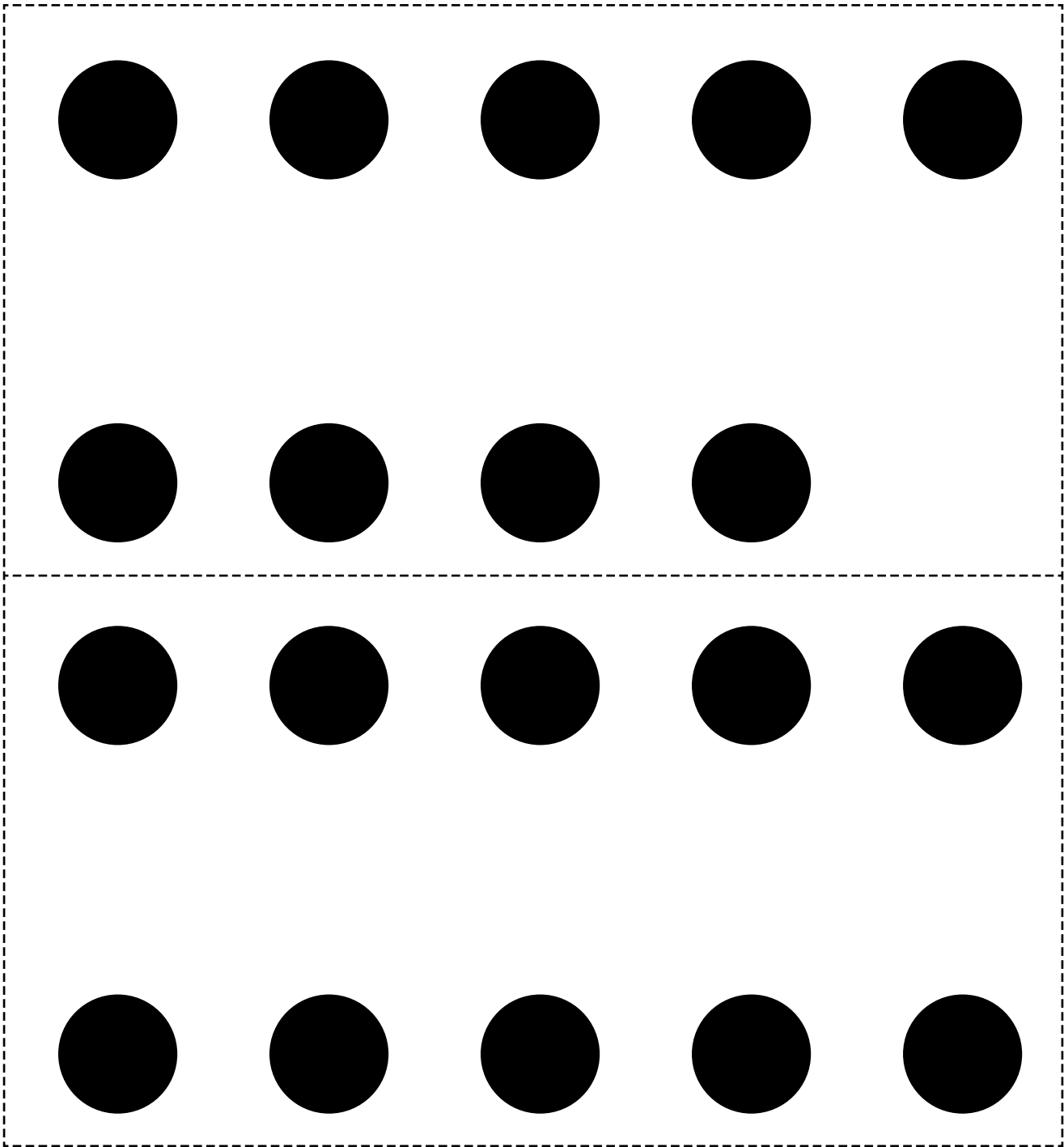
large 5-group cards (Copy on card stock and cut. Save the full set.)





large 5-group cards (Copy on card stock and cut. Save the full set.)





large 5-group cards (Copy on card stock and cut. Save the full set.)

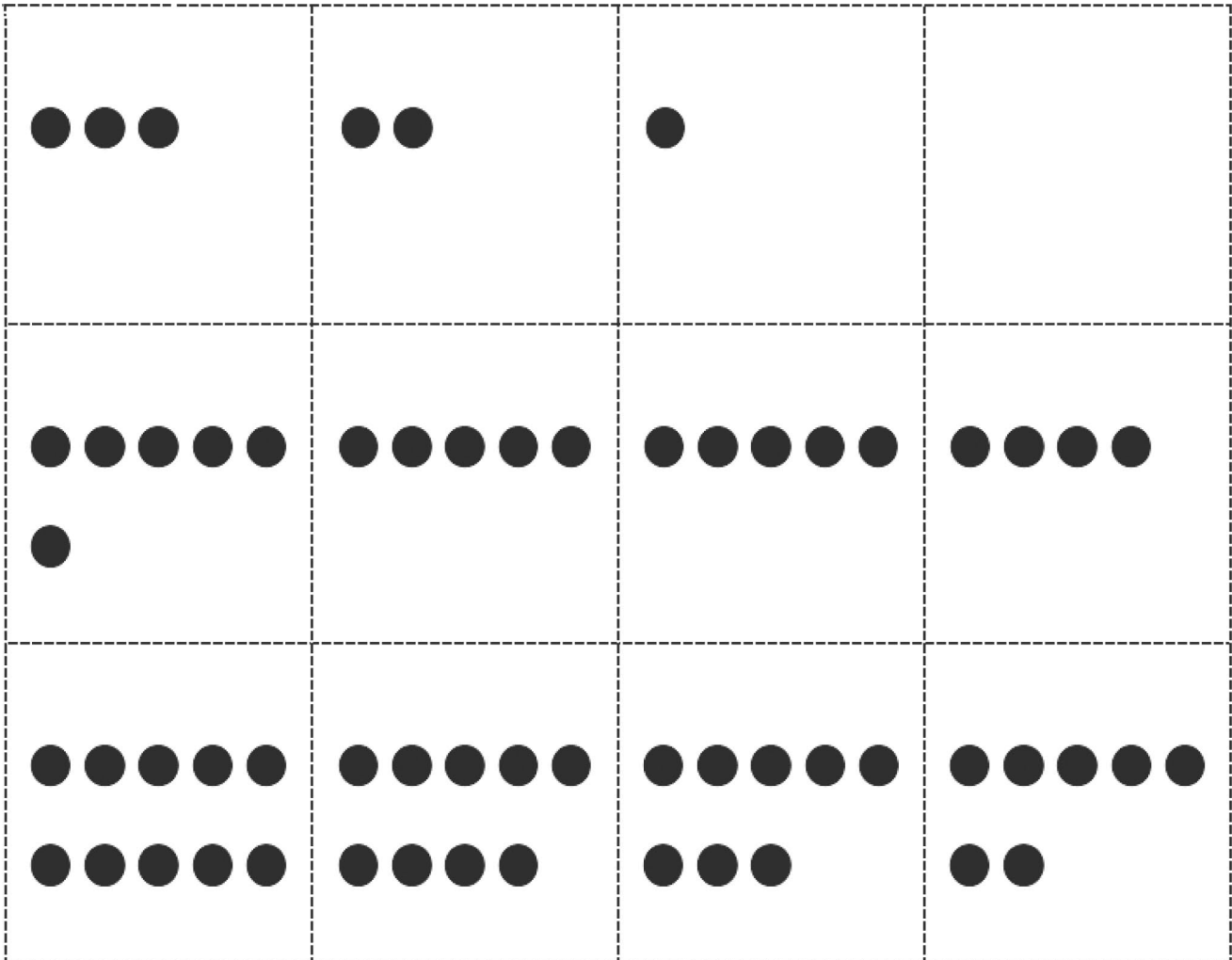


0	1	2	3
4	5	5	<u>6</u>
7	8	<u>9</u>	10

Note: Consider copying on different colors of card stock for ease of organization.

5-group cards (numeral side) (Copy double-sided with 5-groups on card stock, and cut.)





Note: Consider copying on different colors of card stock for ease of organization.

5-group cards (5-group side) (Copy double-sided with numerals on card stock, and cut.)

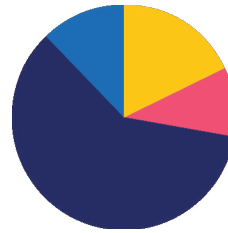


Lesson 2

Objective: Count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and ___ ones.

Suggested Lesson Structure

■ Fluency Practice	(9 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(30 minutes)
■ Student Debrief	(6 minutes)
Total Time	(50 minutes)



Fluency Practice (9 minutes)

- How Many Is One More? **K.2F** (3 minutes)
- Show One More on Fingers **K.2F, K.5A** (3 minutes)
- Count Piles of Ten **K.2C, K.5A** (3 minutes)

How Many Is One More? (3 minutes)

Materials: (T) Large 5-group cards (Lesson 1 Fluency Template 1)
(S) 5-group cards (Lesson 1 Fluency Template 2)

Note: This fluency activity advances the familiar work with the pattern of *1 more* as it requires students to visualize an additional dot on the 5-groups.

- T: (Show 3.) How many dots?
S: 3.
T: What's one more than 3?
S: 4 is one more than 3.

Continue with the following possible sequence:
1, 4, 2, 4, 5, 6, 7, 9, 5, 8, 7. Eliminate asking them to identify the base number as quickly as possible.

- T: We are going to do the same thing without using the 5-group cards. I'll say a number; you say the next number. 3.
S: 4.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Deepen the understanding of students who have demonstrated proficiency by asking them to explain strategies for identifying *one more*. Then, have them apply their strategies through practice with a partner.

Ask students:

Could you use the same strategy for solving *two more* and *three more*?



Continue with the same sequence as above.

Show One More on Fingers (3 minutes)

Materials: (T) 20-bead Rekenrek

Note: This fluency activity maintains students' proficiency with the pattern of *1 more* and connects two 5-group models, the Rekenrek, and counting the Math Way.

T: (Show 5 beads.) Count the number of beads.

S: 1, 2, 3, 4, 5.

T: Count one more on your fingers left to right.

S: (Hover hands as if playing the piano. Drop a finger or *play a note*, starting with the left pinky.) 1, 2, 3, 4, 5, 6.

Continue with the following possible sequence: 6, 4, 7, 9, 8, 7, 6.

Count Piles of Ten (3 minutes)

Materials: (S) About 40 straws for each pair of students

Note: Making groups of ten objects calls students' attention to the number 10 as a significant number in today's lesson.

Have students see how many piles of 10 straws they can count.

Application Problem (5 minutes)

Nora counted some sticks into one pile of 10. She counted 5 other sticks into another pile. Draw a picture to show Nora's piles of sticks.

Note: For now, just focus on the pile of 10 sticks and the pile of 5 rather than composing the teen number.

(Extension: Have early finishers draw Nora's piles on another day when she made one pile of 10 sticks and one pile of 8 sticks!)



10



5



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Access prior knowledge. Remind students of what a ten looks like by providing them with empty ten-frames. Students might then draw sets of ten sticks in the ten-frames.



Concept Development (30 minutes)

Materials: (T) 10 bags with different items in each (suggestions to the right)
(S) 1 egg carton cut to have 10 compartments for each pair of students

- T: Count to find out how many slots there are in your egg carton. Wait for the signal to tell me.
- T: (Pause. When all are ready, give the signal.)
- S: 10.
- T: Each team will count the objects in ten bags. To count the objects in your bag, start by placing the objects in the egg carton, and then put any extra objects next to the carton.
- T: Tell your partner, "I have 10 ones and ____ ones."
- T: We'll do one together first. (Demonstrate.)

Bag Contents:

18 clothespins
20 pasta shells
13 beads
16 pennies
11 crayons
10 erasers
14 linking cubes
12 walnuts in the shell
10 play dollars
15 counting chips

Have pairs of students count out the given **teen number**, decomposing it as 10 ones and some more ones. After counting the objects, have pairs trade bags and count the new objects.

- T: (Allow students time to count all 10 bags.) Let's see what you discovered! Count the clothespins with me.
- S: (Show each one using the egg carton.) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.
- T: How many clothespins are there?
- S: 18.
- T: (Write 10 ones and ____ ones.) Let's complete this sentence.
- S: 10 ones and 8 ones.
- T: Yes! Now, we need to put the clothespins back in their bag. Let's practice counting down from 18 as we put them away. Each time you say a number, put one clothespin into the bag until you have nothing left.
- S: 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.

Have students, in pairs, count and then decompose the other quantities in the other bags using their egg cartons, allowing them to recognize and internalize the structure of teen numbers as 10 ones and some more ones. Continue to encourage statements following the pattern "12 is 10 ones and 2 ones." Each time students clean up a group of objects, encourage them to remove one object at a time and count down from the total number.

Problem Set (8 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Note: Students use the method of checking off one object each time they count. This is a simpler strategy than circling 10 items, which is part of the next lesson.



Student Debrief (6 minutes)

Lesson Objective: Count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and ___ ones.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Have students bring their Problem Set to the carpet and work with a partner to check their count of 10 ones and some more ones. Have them say the teen number as 10 ones and some more ones.

S: There are 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 ducks.

S: 13 is 10 ones and 3 ones.

Ask students to look at the picture of the ducks. Guide students in a conversation to debrief the Problem Set and process the lesson. Any combination of the questions below may be used to lead the discussion. While the primary objective of this lesson is to count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and ___ ones, a secondary objective is to count down from a given number within 20. Incorporate the questions related to this skill as appropriate.

- Can you see 10 ones in this picture?
- How is this picture the same and different from counting using the egg carton?
- Which was faster for you to count, the ducks or the glasses of juice? Why? Show your friend how you counted the glasses of juice.
- Does your drawing of 10 ones and 2 ones look exactly the same as your friend's? How is it the same? How is it different?
- Write the number 17 on the board. Can someone come up and draw 17 squares on the board? Can someone come up and circle 10? Fill in this sentence for me: 17 is 10 ones and ___ ones.
- 14 is 10 ones and ___ ones. Fourteen is a **teen number**. What is another teen number?
- When we say eleven or twelve we don't say eleventeen or twelveteen, but most grown-ups call them teen numbers. What have you noticed today about teen numbers?





Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name Ben Date _____

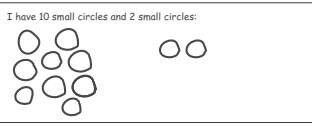
I have 10 ones and 2 ones.

Touch and count 10 things. Put a check over each one as you count 10 things.

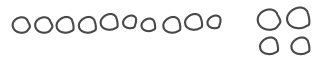
 I have 10 ones and <u>3</u> ones.	 I have 10 ones and <u>2</u> ones.
 I have <u>10</u> ones and <u>6</u> ones.	 I have <u>10</u> ones and <u>1</u> one.

Draw pictures to match the words.


I have 10 small circles and 2 small circles:



I have 10 ones and 4 ones:



Count down from 16.
X out a happy face each time you say a number.




NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Review academic vocabulary with students who are developing their language skills, including some emergent bilingual students. Before beginning student sharing during the Debrief, count to 20 with the Rekenrek to practice pronouncing numbers.



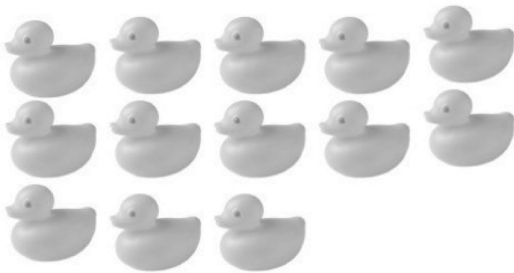
Name _____

Date _____



I have 10 ones and 2 ones.

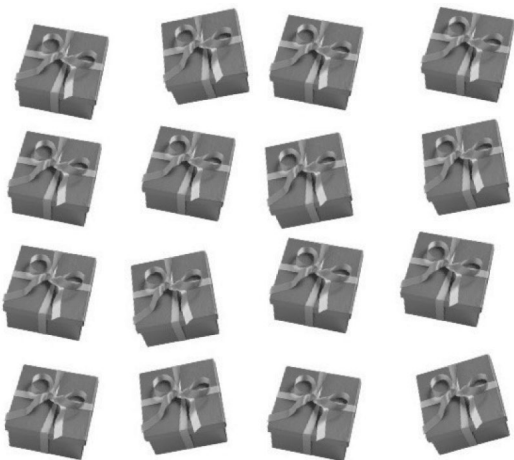
Touch and count 10 things. Put a check over each one as you count 10 things.



I have 10 ones and ____ ones.



I have 10 ones and ____ ones.



I have ____ ones and ____ ones.



I have ____ ones and ____ ones.



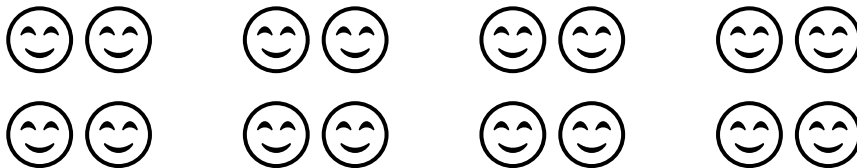
Draw pictures to match the words.

I have 10 small circles and 2 small circles:

I have 10 ones and 4 ones:

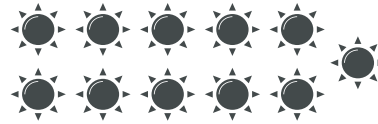
Count down from 16.

Put an X on each happy face each time you say a number.



Name _____

Date _____



10 ones and 3 ones

10 ones and 1 one

Circle the correct numbers that describe the pictures.

	<p>10 ones and 3 ones</p>
	<p>10 ones and 7 ones</p>
	<p>10 ones and 8 ones</p>
	<p>10 ones and 5 ones</p>
	<p>10 ones and 10 ones</p>
	<p>10 ones and 8 ones</p>
	<p>10 ones and 4 ones</p>
	<p>10 ones and 2 ones</p>

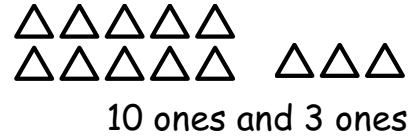
Count down from 12.

Put an X on each happy face each time you say a number.

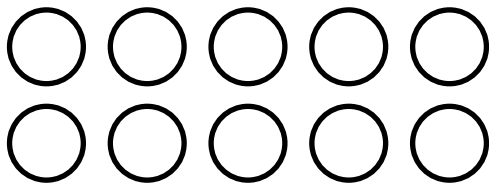


Name _____

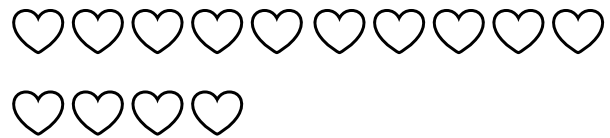
Date _____



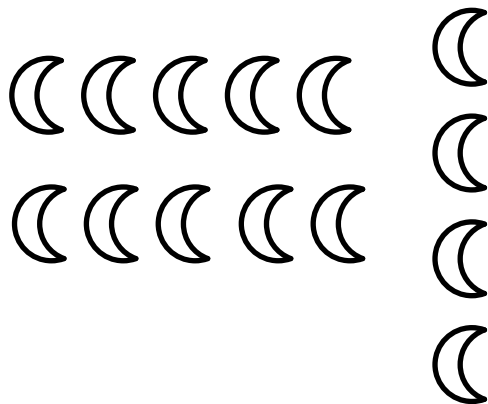
Draw more to show the number.



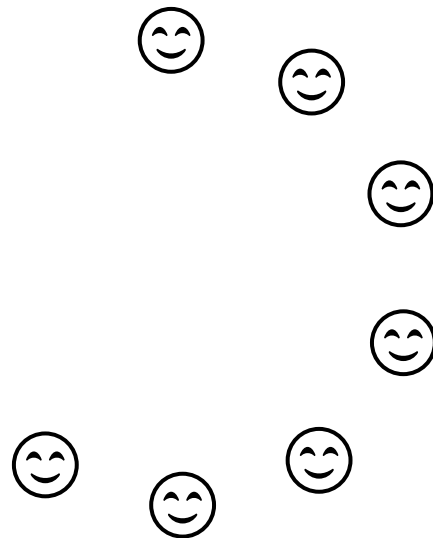
10 ones and 2 ones



10 ones and 5 ones



10 ones and 7 ones



10 ones and 4 ones

Count down from 19.

Put an X on each heart each time you say a number.

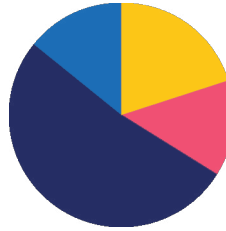


Lesson 3

Objective: Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and ___ ones.

Suggested Lesson Structure

■ Fluency Practice	(10 minutes)
■ Application Problem	(7 minutes)
■ Concept Development	(26 minutes)
■ Student Debrief	(7 minutes)
Total Time	(50 minutes)



Fluency Practice (10 minutes)

- Hide 1 **K.2F** (4 minutes)
- How Many Do You See? **K.2D** (3 minutes)
- Grouping 10 Objects **K.2C** (3 minutes)

Hide 1 (4 minutes)

Materials: (T) Large 5-group cards (Lesson 1 Fluency Template 1) (S) 5-group cards (Lesson 1 Fluency Template 2)

Note: This fluency activity advances the familiar work with the pattern of *1 less* as it requires students to visualize removing a dot from the 5-group card.

T: (Show 5.) Use your imagination to hide 1. How many are left?

S: 4.

T: (Show 10.) Use your imagination to hide 1. How many are left?

S: 9.

Continue with the following possible sequence: 1, 6, 2, 7, 3, 8, 4, 9.

T: Let's do the same thing without using the 5-group cards. I'll say a number; you say the number that comes before. 4.

S: 3.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Make instructions visual as well as oral for students who need more support, including some emergent bilingual students. When instructing students, "Use your imagination to hide 1," illustrate this process by covering one dot on the 5-group card. Repeat for the first few numbers.



Continue with the same sequence as above.

How Many Do You See? (3 minutes)

Materials: (T) Large 5-group cards (Lesson 1 Fluency Template 1)

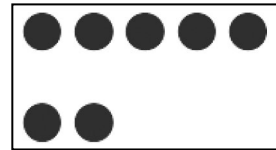
Note: This fluency activity advances students' ability to rapidly recognize quantities on 5-group cards by requiring them to visualize.

T: (Show dots for several seconds, and then hide the card.) Wait for the signal. How many dots did you see?

S: 7.

T: Who can explain how they see 7?

S: I see a 5 group on top and 2 more on the bottom. (Draw as the student speaks.)



Continue with the following possible sequence: 3, 9, 1, 8, 7, 4.

Grouping 10 Objects (3 minutes)

Materials: (S) Bag with about 20 small objects for each student

Note: Making groups of 10 ones in varied configurations brings attention to the number as significant in today's lesson and allows students to experience conservation of the number.

T: Place the items from your bag on your work mat. Count out 10 ones, and move them together into a bunch.

T: (Wait while they work.) By counting, prove to your partner there are 10 things in your bunch.

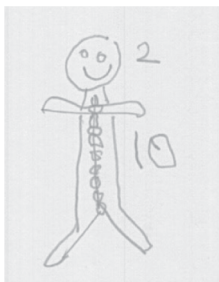
S: (Count.)

T: Push all your things back together. Mix them up. Count out 10 ones again, and move them together into a bunch.

Repeat process two or three more times. Ask students if the same 10 things are in the bunch each time.

Application Problem (7 minutes)

Each gingerbread man got 10 sprinkles as buttons with 2 sprinkles to show the eyes. Draw to show the 12 sprinkles as 10 buttons and 2 eyes.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

During the Application Problem, challenge students who have demonstrated proficiency by asking them to draw a 5-group that represents this problem. Ask: "What if each gingerbread man got 1 more sprinkle for the nose?"

Concept Development (26 minutes)

Materials: (S) Find 10 (Template) cut into strips

T: (Draw two rows of five circles with three more off to the side.)

T: Let's count all the circles.

S: 1, 2, ..., 13.

T: Talk to your elbow partner. Can you count 10 ones in my picture?

S: (Students talk with their partners. Watch for pointing and counting. Expect students to count one at a time. Do not insist they recognize the 2 fives as 10 automatically.)

T: Who can come to the board and show us how they counted 10 ones?

S: (Student comes to the board and designates the 10.)

T: Let's count while they point.

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

T: Are there more?

S: Yes!

T: How many more?

S: 3 more.

T: Use your finger to circle the 10 ones from your seat.

S: (Make circles around the 10 ones with fingers.)

T: Can you see the 3 ones without counting?

S: Yes!

T: Now, find 10 triangles inside this group of triangles. (Distribute and display the template strip of triangles pictured to the right.) Find 10 ones, and circle them carefully with your finger.

S: (Count and circle 10 ones with finger.)

T: Show your partner how you found and circled 10 ones with your finger. Prove that it is 10 by counting and then circling.

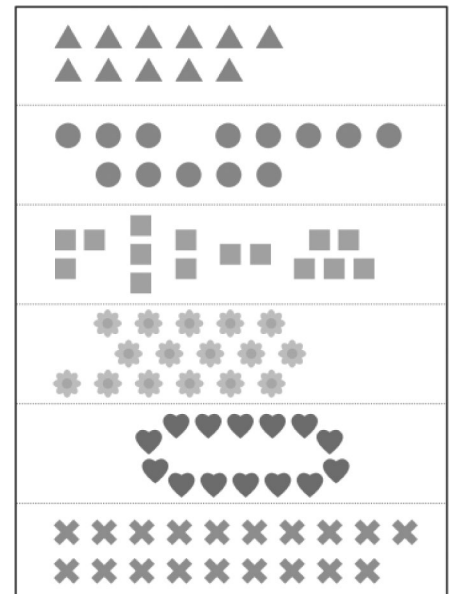
S: (Students do so.)

T: Now, use your pencil to find and circle your 10 ones. (Students circle 10 ones.) Trade papers with your partner, and count to be sure they circled exactly 10 ones. If you disagree, tell your partner why you think the answer should be different.

T: How many extra ones did you have after you counted the 10 triangles?

S: 1.

T: When you and your partner are ready, raise your hand for a new picture. Find and circle 10 ones with your finger and then with your pencil. Prove your count of 10 ones to your partner. Trade papers with your partner, and check their count. (Continue distributing and displaying additional strips of ten items from the template.)



Problem Set (8 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Note: Ask students to find and circle 10 objects with their fingers before circling them with their pencils. They are *finding* an embedded number; just as when they were *seeing* seven, they may have seen a 5-group and 2 more. The difference here is that they must count to find 10 ones. Later, in Grade 1, they will recognize certain configurations of 10 ones (such as the ten-frame) as 1 ten.

Student Debrief (7 minutes)

Lesson Objective: Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and ___ ones.


The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.


- Did your friend circle the exact same ice-cream cones? Apples? Peppers? Tacks?
- Were both your answers correct? Why?
- How did your friend represent 10 ones in his picture?
- How do we say 10 ones and 5 ones (and the other numbers represented) as one number? (The students have been counting to higher numbers during Fluency Practice since early in the year. Pre-K standards call for counting to 20.)
- Which pictures were faster for you to count? Why?

Name Ben Date _____




I have 10 ones and 2 ones.


Count and circle 10 things. Tell how many there are in two parts, 10 ones and some more ones.



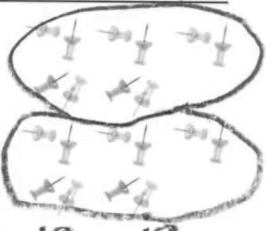
I have 10 ones and 5 ones.



I have 10 ones and 2 ones.



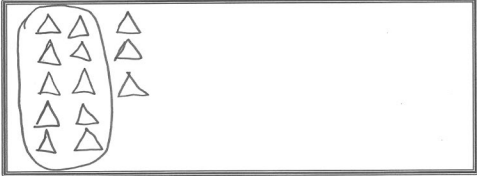
I have 10 ones and 5 ones.



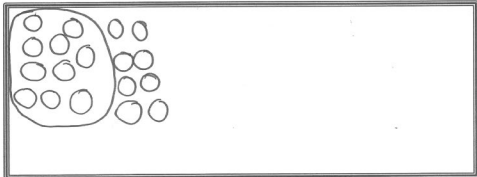
I have 10 ones and 10 ones.

Draw your picture to match the words. Circle 10 ones.

I have 10 ones and 3 ones:



I have 10 ones and 8 ones:



- What do all these examples have in common? Do 10 ones always look the same? What other things in our classroom could we make into a bunch or pile of 10 ones?

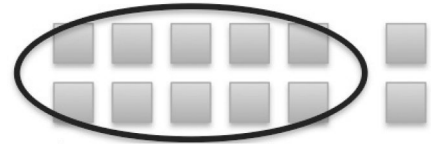
Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name _____

Date _____

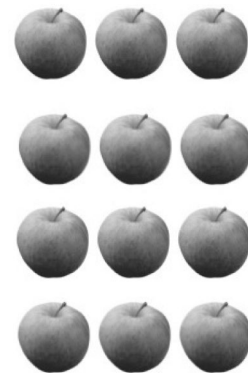


I have 10 ones and 2 ones.

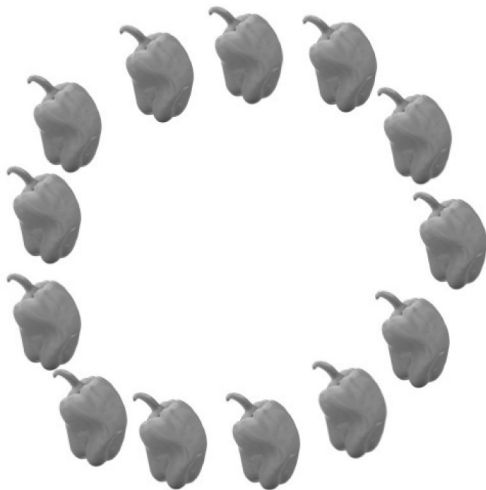
Count and circle 10 things. Tell how many there are in two parts, 10 ones and some more ones.



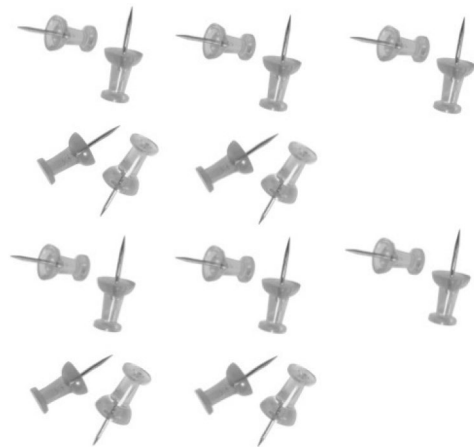
I have 10 ones and ____ ones.



I have ____ ones and ____ ones.



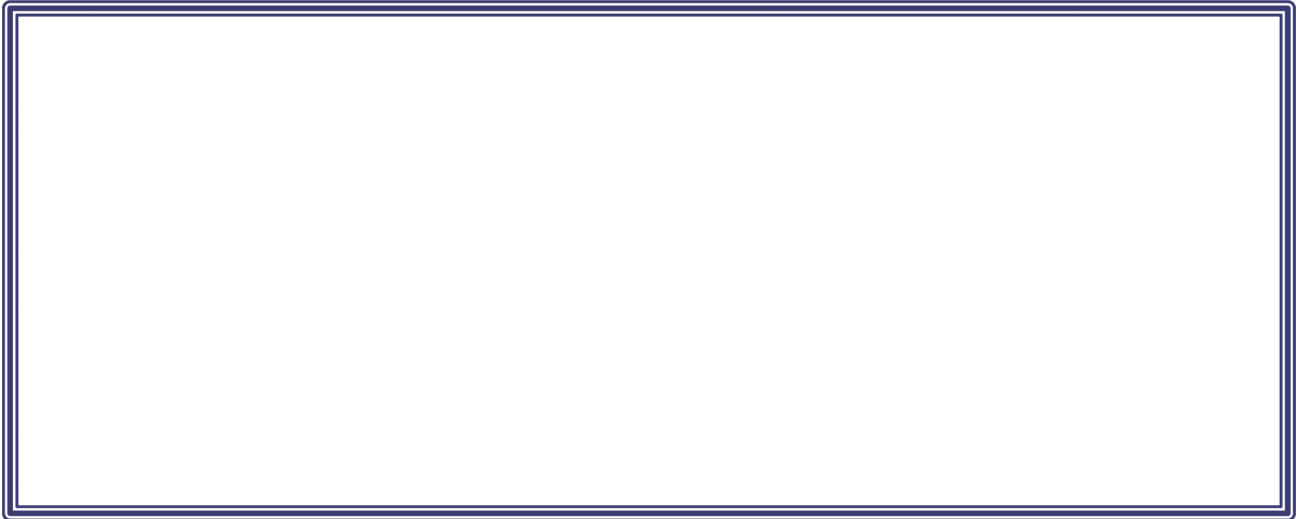
I have ____ ones and ____ ones.



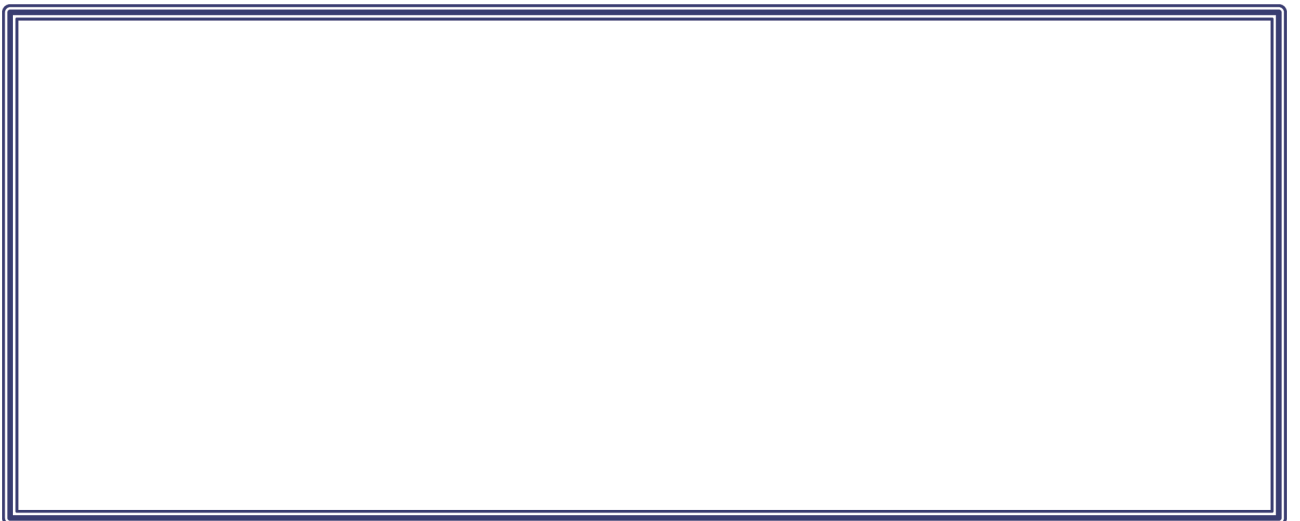
I have ____ ones and ____ ones.

Draw your picture to match the words. Circle 10 ones.

I have 10 ones and 3 ones:



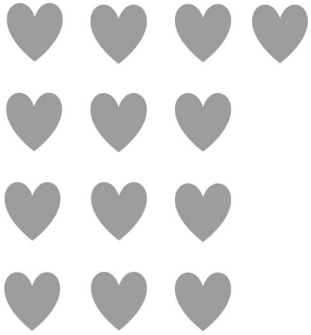
I have 10 ones and 8 ones:



Name _____

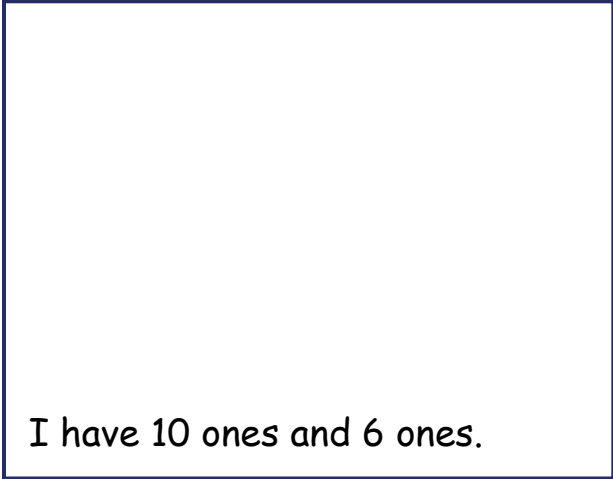
Date _____

Circle 10 ones.



I have 10 ones and ____ ones.

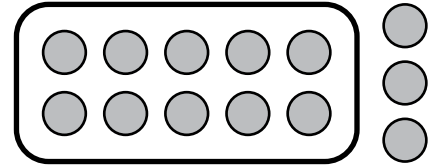
Draw 10 ones and 6 ones.



I have 10 ones and 6 ones.

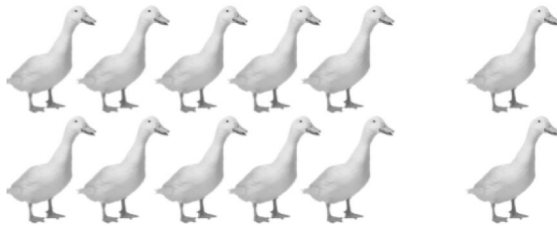
Name _____

Date _____

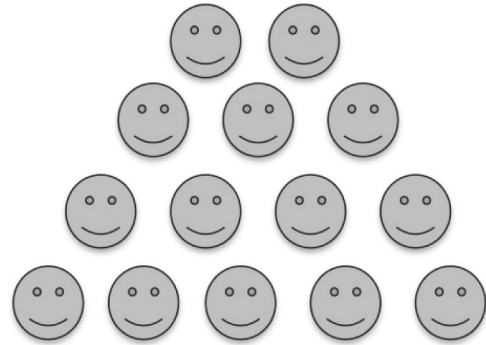


I have 10 ones and 3 ones.

Circle 10 things. Tell how many there are in two parts, 10 ones and some more ones.



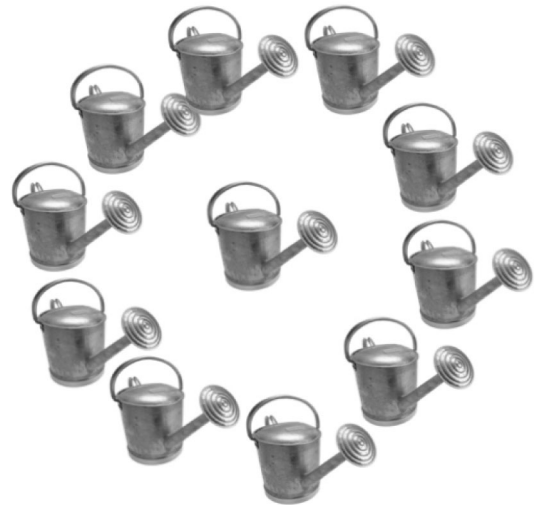
I have 10 ones and ____ ones.



I have 10 ones and ____ ones.



I have ____ ones and ____ ones.

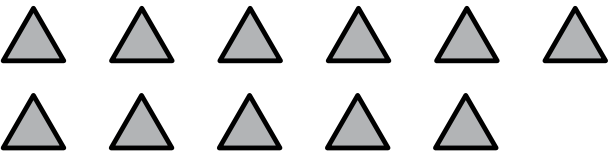
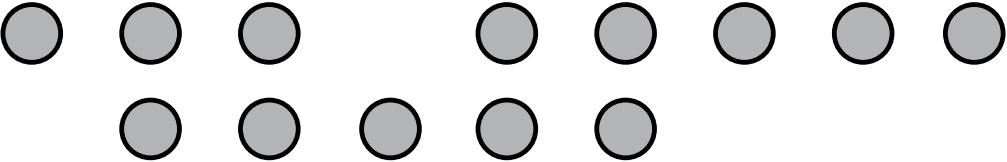
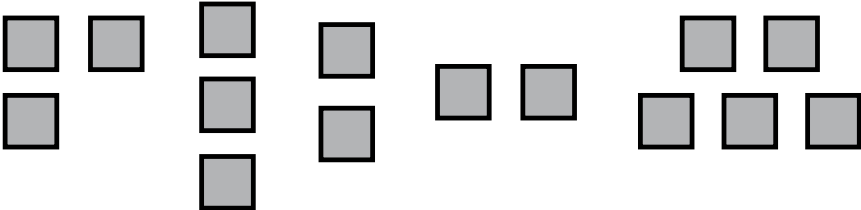
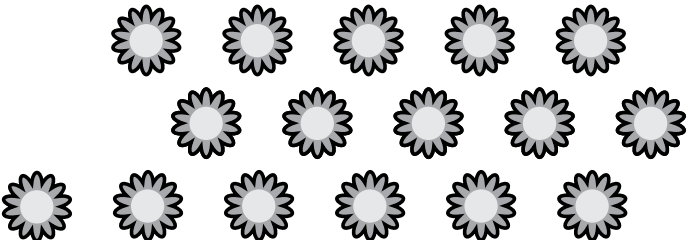
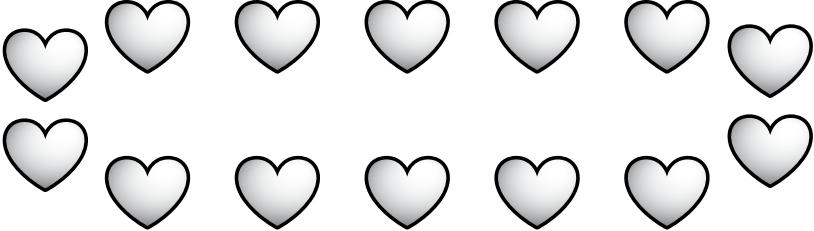
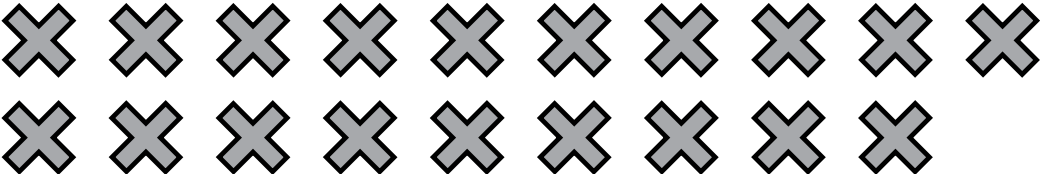


I have ____ ones and ____ ones.



Lesson 3:

Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and ____ ones.

find 10

Lesson 3:

Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and ___ ones.

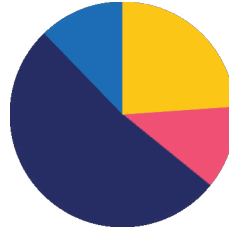


Lesson 4

Objective: Count straws the Say Ten way to 19; make a pile for each ten.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(6 minutes)
■ Concept Development	(26 minutes)
■ Student Debrief	(6 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- Dot Cards of Six **K.2D, K.2I** (4 minutes)
- Number Pairs of Six **K.2I** (4 minutes)
- Circle 10 Objects **K.2C, K.2D** (4 minutes)

Dot Cards of Six (4 minutes)

Materials: (T/S) Dot cards of 6 (Fluency Template 1)

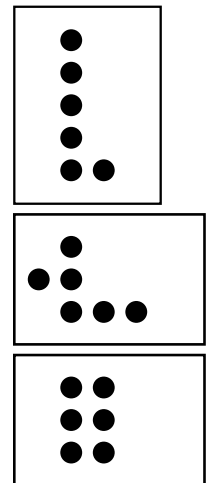
Note: This fluency activity gives students an opportunity to develop increased familiarity with decompositions of six and practice seeing part–whole relationships.

- T: (Show 6 dots.) How many do you see? (Give students time to count).
- S: 6.
- T: How can you see 6 in two parts?
- S: (Come up to the card.) 5 here and 1 here. I see 3 here and 3 here.

Continue with other cards of six. Distribute the cards to the students for partner sharing time. Have them *pass on* the card to a different set of partners at a signal.

Number Pairs of Six (4 minutes)

Materials: (T) Linking cube sticks or dot cards of 6 (Fluency Template 1) (S) Personal white board



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Provide students who need more support with extra minutes to process questions before giving the signal to respond. When students are responding chorally, ask them to “show thumbs up when ready” to ensure ample think time.



Note: This fluency activity gives students an opportunity to develop increased familiarity with compositions of six and practice seeing part-whole relationships. Do not expect automaticity from most students, but make note of advanced thinking. Allow time to count all if necessary.

Show a stick of linking cubes or the dot cards with 5 and 1 indicated as parts.

T: Say the larger part. (Give students time to count.)

S: 5.

T: Say the smaller part.

S: 1.

T: What is the total number of dots? (Give them time to recount.)

S: 6.

T: Show the number bond on your personal white board.

Continue with 4 and 2, 3 and 3, and 6 and 0.

Circle 10 Objects (4 minutes)

Materials: (S) Circle 10 (Fluency Template 2)

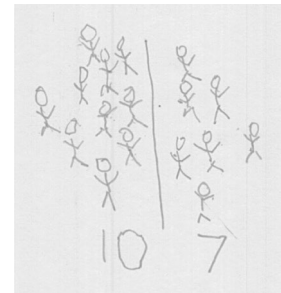
Note: This activity requires students to locate 10 as an embedded number within a pictorial group of 10 ones and some ones.

Have students locate the Circle 10 Template. Please note that this template will be used in the Student Debrief.

Application Problem (6 minutes)

At recess, 17 students were playing. 10 students played handball while 7 students played tetherball. Draw to show the 17 students as 10 students playing handball and 7 students playing tetherball.

Note: In this Application Problem, students are not adding to solve, but rather they are being guided to decompose the 17 as 10 ones and 7 ones. This is not asking *how many* but rather separating 17 into 10 ones and some ones (**K.2E**). The problem is not asking them to count the total but is instead telling them the total.



Concept Development (26 minutes)

Materials: (T) 19 linking cubes (S) bag of 19 small counting objects such as pennies or beans; 19 straws (per pair)

- T: Come sit with me on the carpet. (Choose a student helper to sit next to you on the left.)
- T: (Place a linking cube on each of your fingers.) How many cubes do you see?
- S: 10.
- T: (Ask your helper to place a cube on her right pinky finger.) Now, how many cubes do you see?
- S: Eleven! → I see 10 and 1.
- T: You're all correct! Eleven is 10 and 1. I'm going to teach you to count the Say Ten way!
- T: (With a linking cube on each finger, raise your hands again.) How many linking cubes is this?
- S: Ten.
- T: Every time Lucy adds another cube to her fingers, we'll say, "Ten" (show your hands) and the number of ones you see on her fingers. Ready?
- S: (Have helper add cubes on her fingers from right to left in sequential order up to 19.) Ten 1, ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8, ten 9.
- T: Excellent! Now, go back to your seats, and we'll practice counting the Say Ten way using straws.
- T: (Pass out 19 straws to each pair of students.) One student, Partner A, will count out 10 straws into a pile. The other student, Partner B, will place one straw next to the pile, and we'll say, "Ten 1." Ready?
- S: (Show a pile of 10 straws and 1 more straw.) Ten 1.
- T: Partner B, place another straw next to the pile of 10. How many straws now?
- S: Ten 2, ten 3, ten 4, ...(continue to ten 9).
- T: Put all the straws back into one pile, and switch roles. Partner B, count out 10 straws into a pile. Partner A, place 1 straw next to the pile, and let's practice counting again the Say Ten way.
- S: (Count up to ten 9.)

**NOTES ON MULTIPLE MEANS OF ENGAGEMENT:**

Some students, including some emergent bilingual students, may need support with academic vocabulary. As students count the Say Ten way, ask them to also tell the standard number name.

T: How many?

S: Ten 1.

T: Right. And the regular way?

S: Eleven.

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Begin by having students use concrete materials on the ten-frames of the Problem Set. Have them count the Say Ten way as they work. Direct students to fill the ten-frame on the left, first with one row of 5 from left to right, and then the row below from left to right. Remind them that these are like their egg cartons. After doing some examples with materials, have students draw and count the specified amounts while they count the Say Ten way.



Student Debrief (6 minutes)

Lesson Objective: Count straws the Say Ten way to 19; make a pile for each ten.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

The following is a suggested list of questions to invite reflection and active processing of the total lesson experience. Use what best supports students' ability to articulate the focus of the lesson.

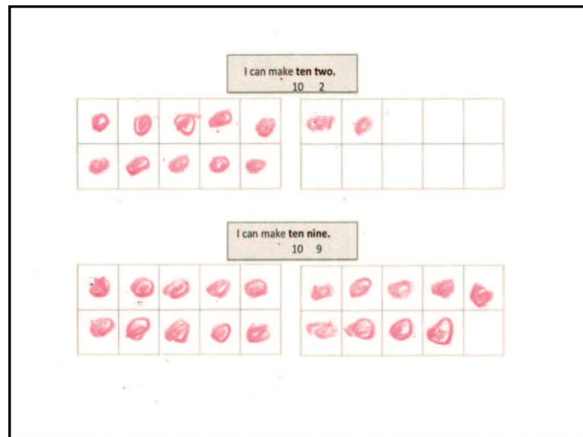
Have students bring their circle 10 template to the carpet. This is the template from the Fluency Practice.

Suggestions for the Debrief:

- Look at your Circle Ten Template. Can you say the numbers the Say Ten way?
- Did your friend circle 10 objects the same way you did?
- Were both of your answers correct? Why?
- How do we say ten 9 as one number?
- How do we say 16 the Say Ten way?
- Which pictures were faster for you to count? Why?
- What do all the pictures have in common?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name _____ Date _____

Draw 10 ones and some ones. Whisper count as you work the Say Ten Way.

I can make ten three.
10 3

I can make ten seven.
10 7



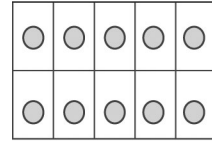
I can make ten two.
10 2

I can make ten nine.
10 9



Name _____

Date _____



10

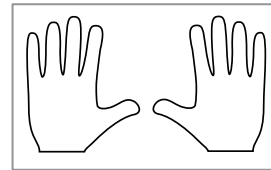


3

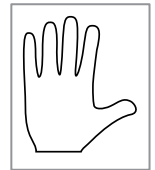
Count and write how many the Say Ten way.

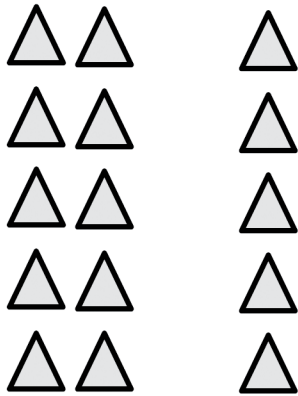


10 _____

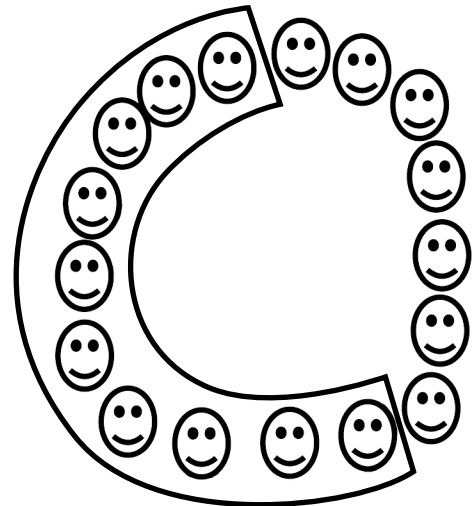


10 _____





_____ _____



_____ _____



Name _____

Date _____

00000	XXX
00000	

10 3

Draw a line to match each picture with the numbers the Say Ten way.

00000	X
00000	

10 1

00000	XX
00000	

10 6

00000	XXX
00000	

10 10

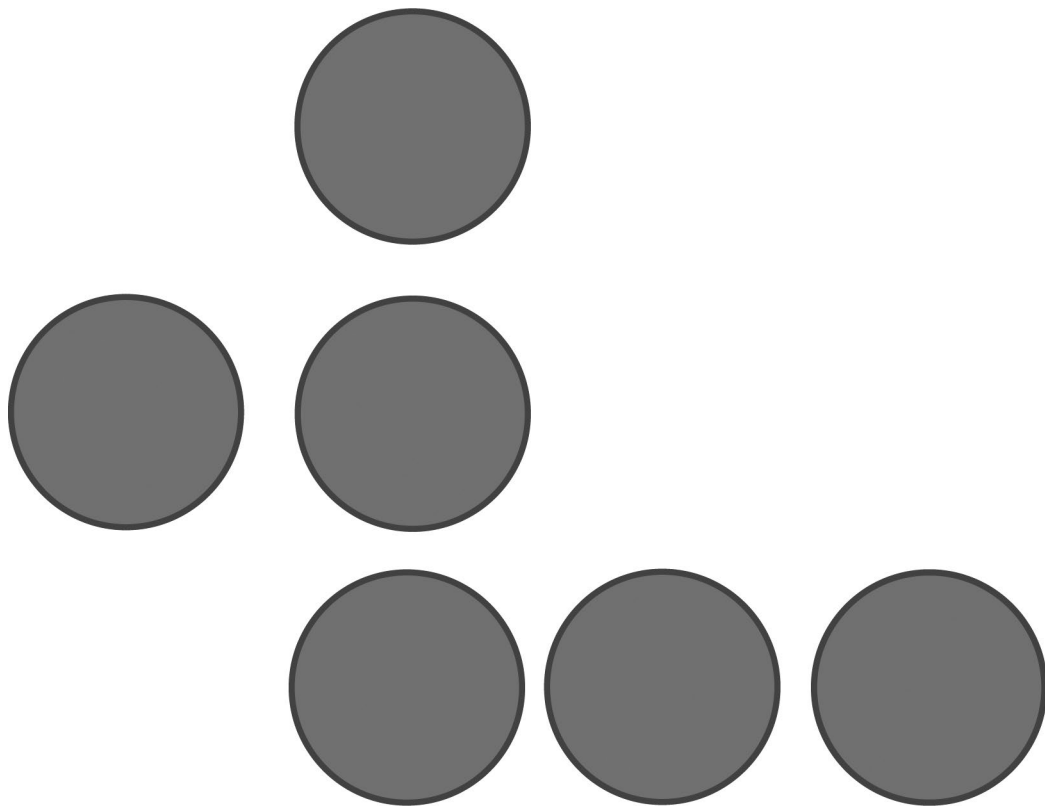
00000	XXXXX
00000	X

10 2

00000	XXXXX
00000	XXXXX

10 3

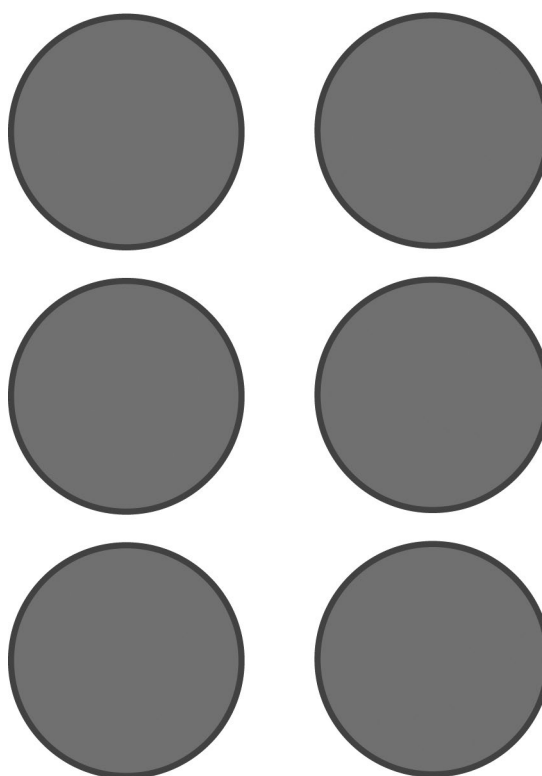




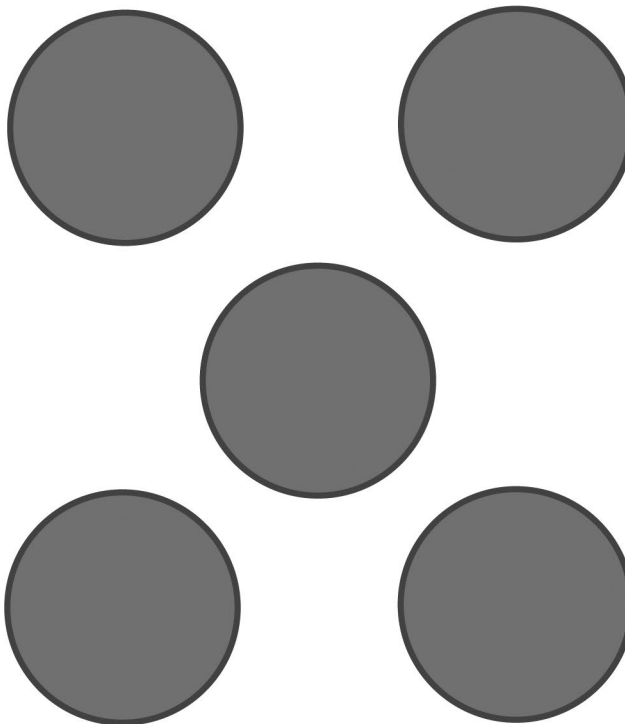
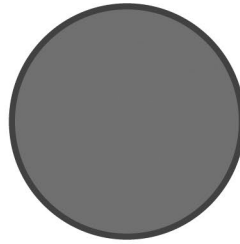
dot cards of 6



Lesson 4: Count straws the Say Ten way to 19; make a pile for each ten.



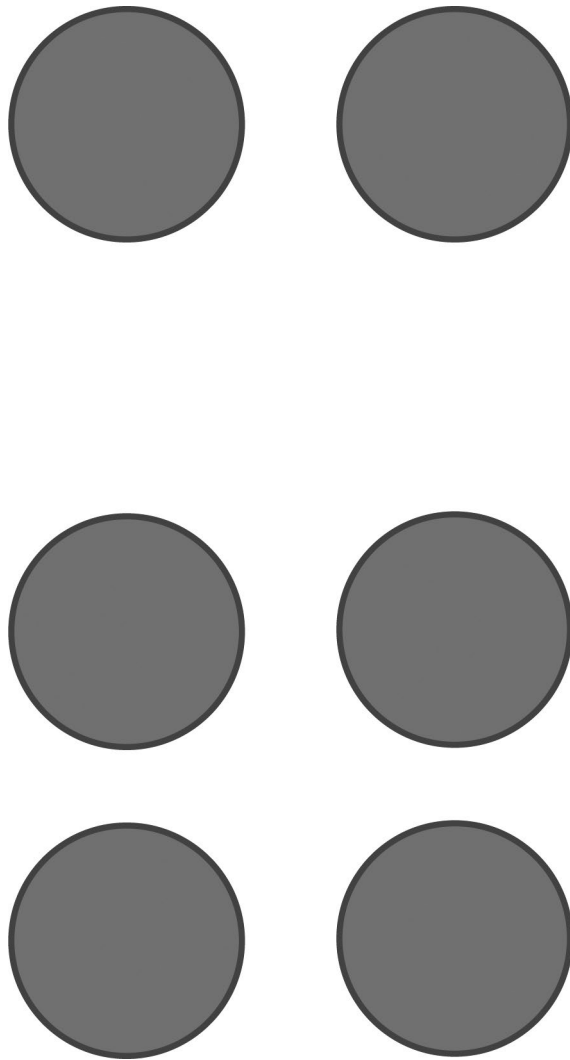
dot cards of 6



dot cards of 6

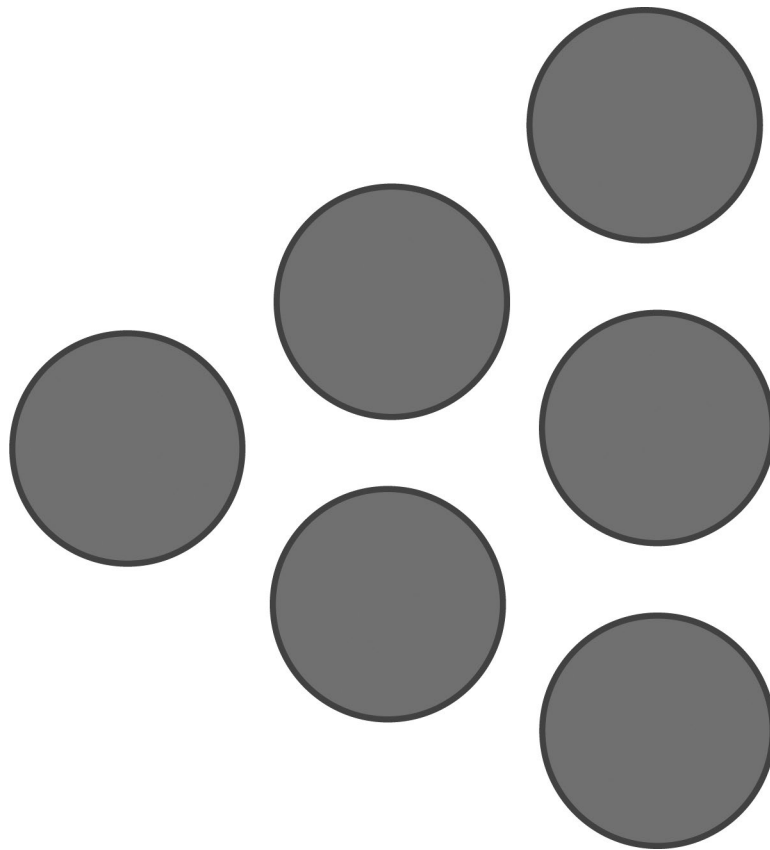


Lesson 4: Count straws the Say Ten way to 19; make a pile for each ten.



dot cards of 6

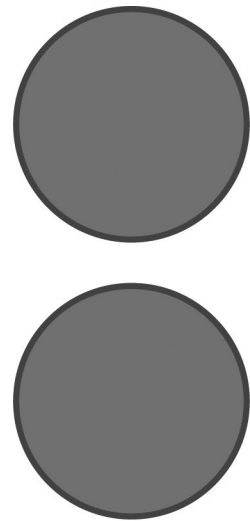
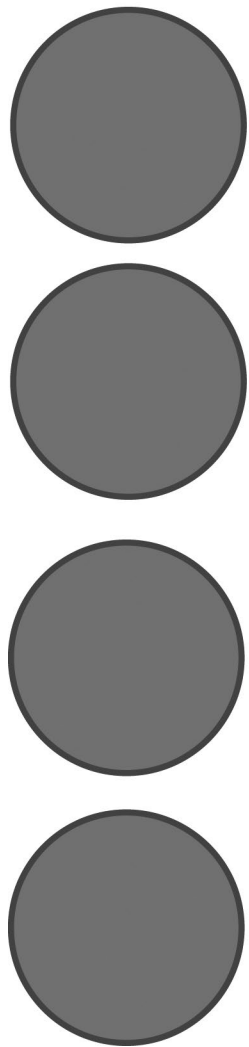




dot cards of 6

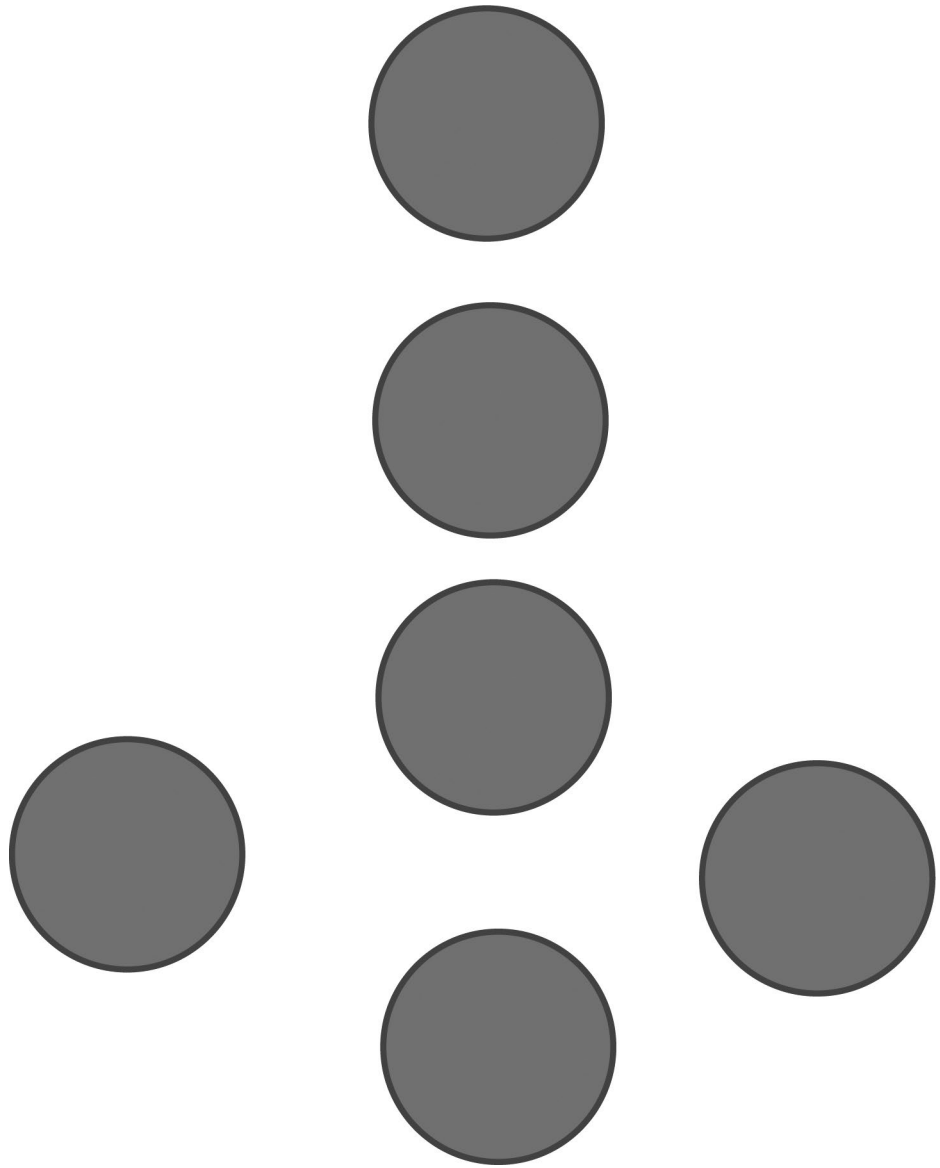


Lesson 4: Count straws the Say Ten way to 19; make a pile for each ten.



dot cards of 6

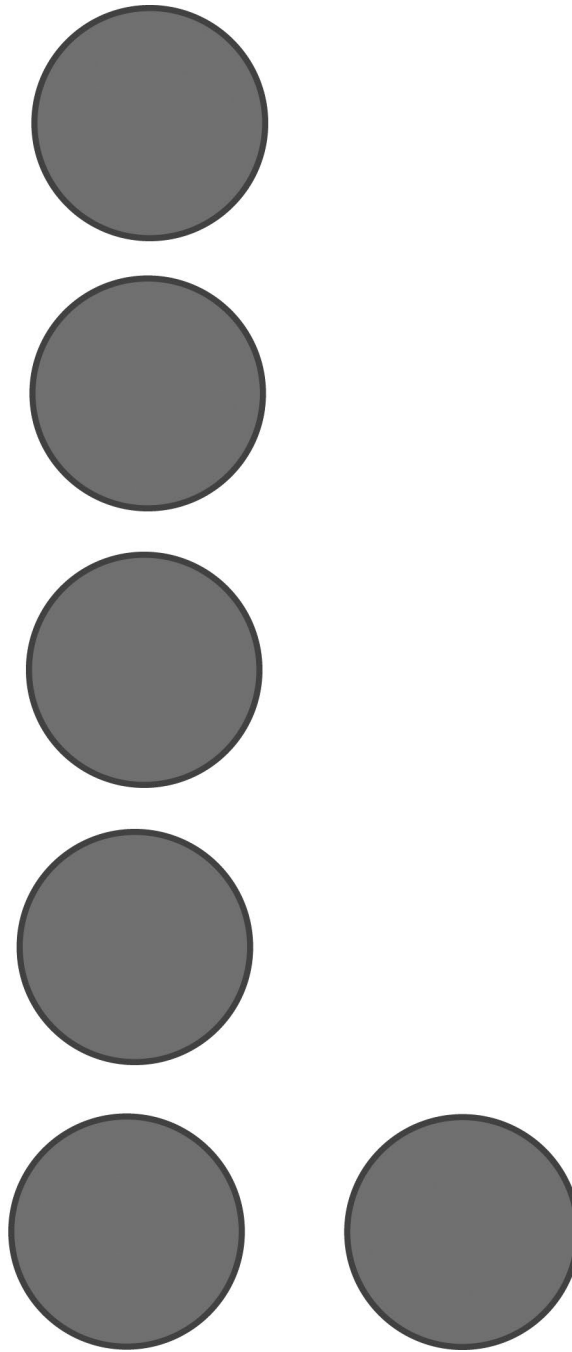




dot cards of 6



Lesson 4: Count straws the Say Ten way to 19; make a pile for each ten.



dot cards of 6



Name _____

Date _____

Circle 10.

circle 10

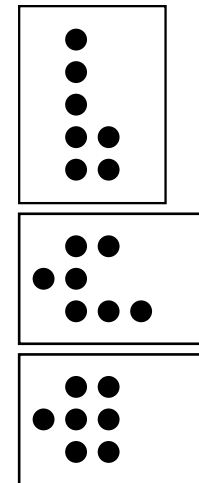
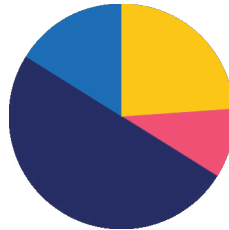


Lesson 5

Objective: Count straws the Say Ten way to 20; make a pile for each ten.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(25 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- Dot Cards of Seven **K.2D, K.2I** (4 minutes)
- Number Pairs of Seven **K.2I** (4 minutes)
- Circling 10 Ones **K.2C, K.2D** (4 minutes)

Dot Cards of Seven (4 minutes)

Materials: (T/S) Dot cards of 7 (Fluency Template 1)

Note: This fluency activity gives students an opportunity to develop increased familiarity with decompositions of seven and practice seeing part-whole relationships.

- T: (Show 7 dots.) How many do you see? (Give students time to count.)
- S: 7.
- T: How can you see 7 in two parts?
- S: (Come up to the card.) 5 here and 2 here. I see 3 here and 4 here.

Continue with other cards of seven. Distribute the cards to students for partner sharing time. Have them *pass on* the card to a different set of partners at a signal.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Students who need more proficiency practice will need to do more counting. They need more time and may benefit from working with the cards one at a time while you move more rapidly through the cards with the majority of the class.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Let students who have demonstrated proficiency work in a small group with more of a flashing approach. Assign one student or classroom helper to be the teacher. Engage them in sharing the different ways they saw the subsets.



Number Pairs of Seven (4 minutes)

Materials: (T) Dot cards of 7 (Fluency Template 1), (S) personal white board

Note: This fluency activity gives students an opportunity to develop increased familiarity with decompositions of seven and practice seeing part-whole relationships.

T: (Indicate 6 and 1 as parts.) Say the larger part.

S: 6.

T: Say the smaller part.

S: 1.

T: What is the total number of dots? (Give students time to recount.)

T: Write the number bond on your personal white board. Continue with 5 and 2, 4 and 3, and 7 and 0.

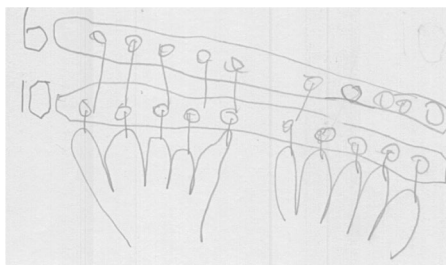
Circling 10 Ones (4 minutes)

Materials: (S) Circle 10 ones (Fluency Template 2) (pictured to the right)

Note: This activity gives students repeated experience in locating 10 ones embedded within a pictorial group of 10 ones and some ones. Challenge students who have demonstrated proficiency to circle a different group of 10 than last time.

Application Problem (5 minutes)

Pat covered 16 holes when playing the flute. She covered 10 holes with her fingers on the first note she played. She covered 6 holes on the next note she played. Draw the 10 holes. Draw the 6 holes. Use your drawing to count all the holes the Say Ten way.



Note: The focus here is on counting to find the total rather than on addition. They are also seeing the embedded 10 and 6 as they count to 16 the Say Ten way.



Concept Development (25 minutes)

Materials: (S) 20 straws (per pair)

- T: Come sit with me on the carpet.
- T: I'm going to flash numbers with my hands. Tell me the number, and then tell me the number the Say Ten way. Let's do one as an example.
- T: (Hold out both hands, palms out, to show 10. Then, show your right hand with the pinky extended.)
- S: Eleven.
- T: The Say Ten way?
- S: Ten 1.
- T: Perfect. (Show 10 again, and then show 2 on your right hand with the pinky and ring finger.)
- S: Twelve! Ten 2.
- T: Yes!
- T: (Continue this way up to ten nine.) What comes after 19? (Flash 2 tens.)
- S: Twenty! 2 tens!
- T: Very good! Please return to your seats, and we'll practice counting the Say Ten way using straws. Partner A will count 10 straws into a pile. The other student, Partner B, will place one straw next to the pile and say, "Ten 1." Ready?
- S: (Show a pile of 10 straws and 1 one.) Ten 1.
- T: Partner B, place another straw. How many straws are there now?
- S: Ten 2.
- T: (Continue this way up to 2 tens.) How many straws are there?
- S: 2 tens!
- T: You are all correct! There are 2 piles of 10 straws. We say, "2 tens."
- T: Put all the straws back into one pile, and switch roles. Partner B, count out 10 straws into a pile. Partner A, place one straw next to the pile, and let's practice counting again the Say Ten way.
- S: (Count up to 2 tens.)



**NOTES ON
MULTIPLE MEANS
OF ACTION AND
EXPRESSION:**

Support students who need more support, including some emergent bilingual students, by using gestures during the lesson. Flash 10, and gesture with your hands for the word. Flash 1. Gesture again for the word. This engages students to figure out the intent and bypasses all the potential confusion in oral directions.

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Direct students to circle 10 objects and check the extra ones. Have them count the total using the Say Ten way. Watch to see that they count the 10 ones within the circle first from left to right, row by row. They then match the drawing to its numerical representation.



Student Debrief (8 minutes)

Lesson Objective: Count straws the Say Ten way to 20; make a pile for each ten.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at your circle 10 ones template. Can you say the numbers the Say Ten way?
- Did your friend circle 10 ones the same way you did?
- Were both your answers correct? Why?
- How do we say 2 tens as one number?
- How do we say 17 the Say Ten way?
- Which pictures were faster for you to count? Why?
- Look at your Problem Set. Tell your partner what helps you count.
- What is the same about all of the pictures? What is different?

Name Maddie Date _____

Ten two
10 2

Circle 10 things. Touch and count the Say Ten way. Count your 10 ones first. Put a check over the loose ones. Draw a line to match the number.

Ten one
10 1

Ten seven
10 7

Ten three
10 3

Ten four
10 4

Two ten
10 10

Ten eight
10 8

Exit Ticket (3 minutes)

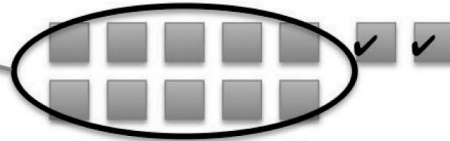
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name _____

Date _____

Ten	two
10	2



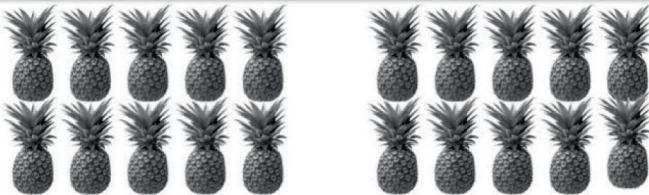
Circle 10 things. Touch and count the Say Ten way. Count your 10 ones first. Put a check over the loose ones. Draw a line to match the number.



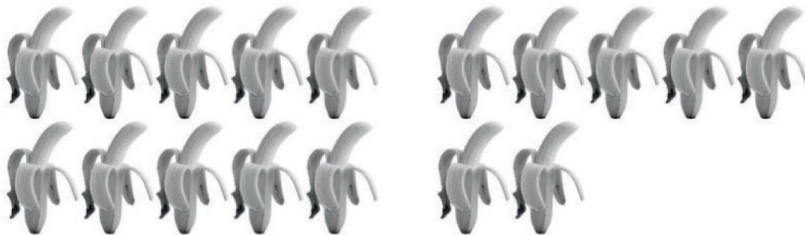
Ten	one
10	1



Ten	seven
10	7



Ten	three
10	3



Ten	four
10	4



Two	ten
10	10

Ten	eight
10	8



Name _____

Date _____

Write and whisper the missing numbers.

Count the Say Ten way from 11 to 20.

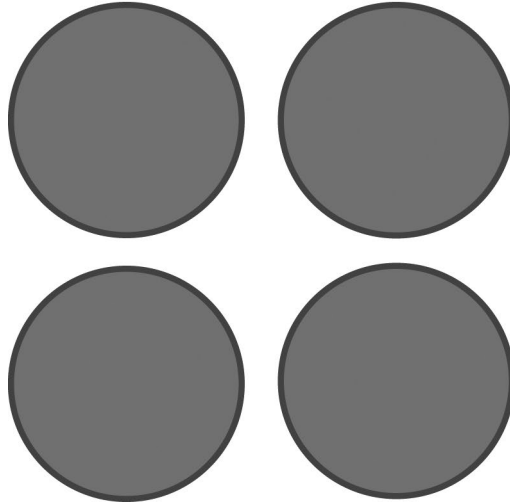
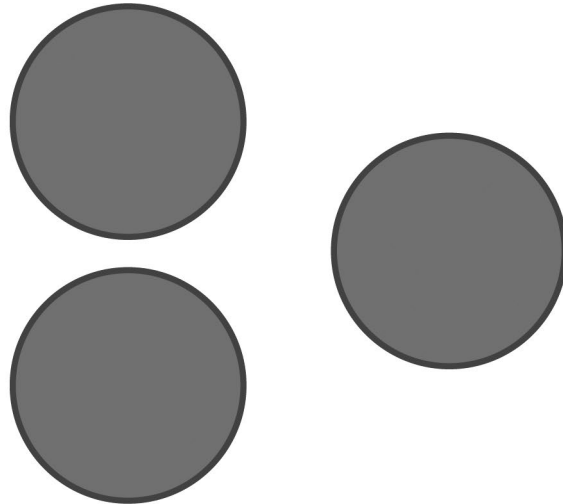
<u>10</u> and <u>1</u>	<u>10</u> and <u>2</u>	<u>10</u> and ____	<u>10</u> and <u>4</u>	<u>10</u> and ____
<u>10</u> and <u>6</u>	____ and ____	____ and ____	____ and ____	<u>10</u> and <u>10</u>



Name _____ Date _____

Write the numbers that go before and after, counting the Say Ten way.

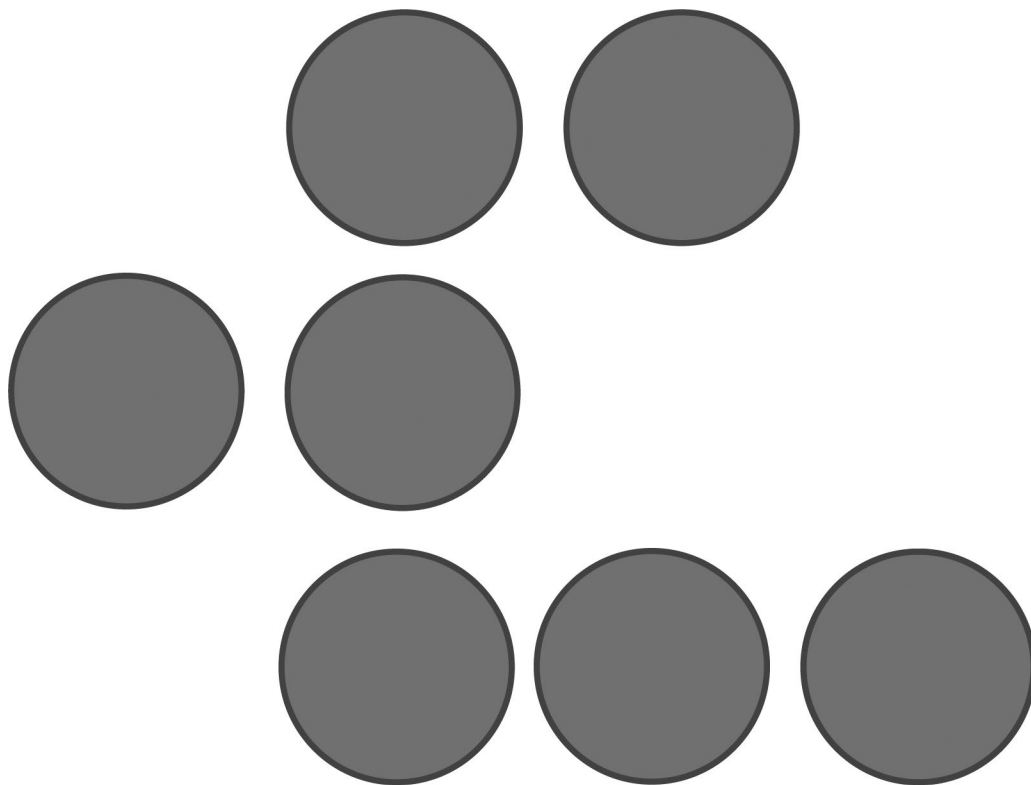
BEFORE	NUMBER	AFTER
10 and 3	10 and 4	10 and 5
and	10 and 2	and
and	10 and 5	and
and	10 and 6	and
and	10 and 1	and
and	10 and 9	and



dot cards of 7

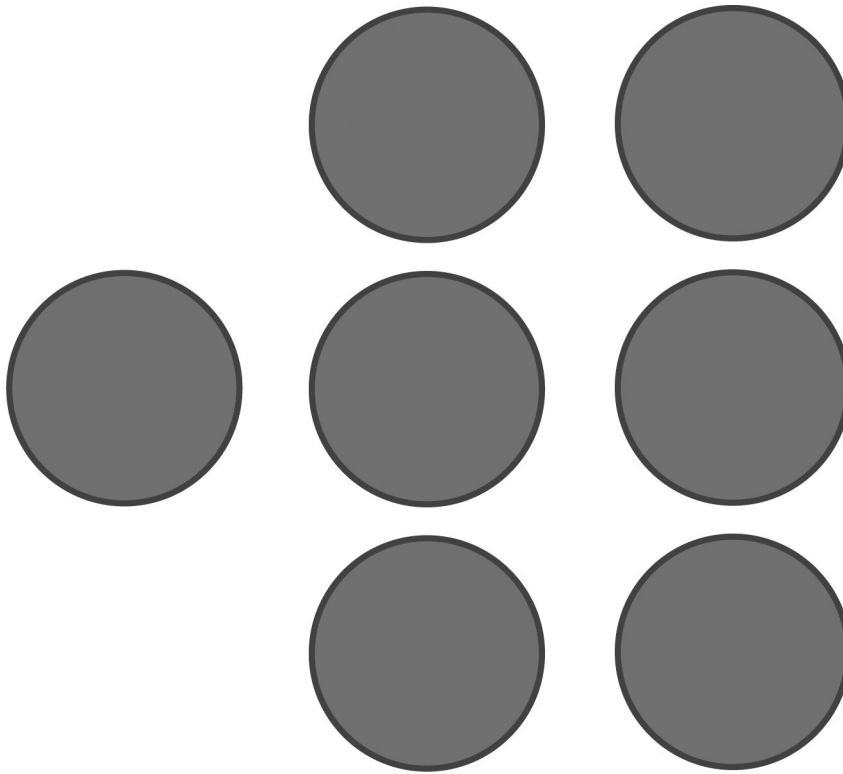


Lesson 5: Count straws the Say Ten way to 20; make a pile for each ten.



dot cards of 7

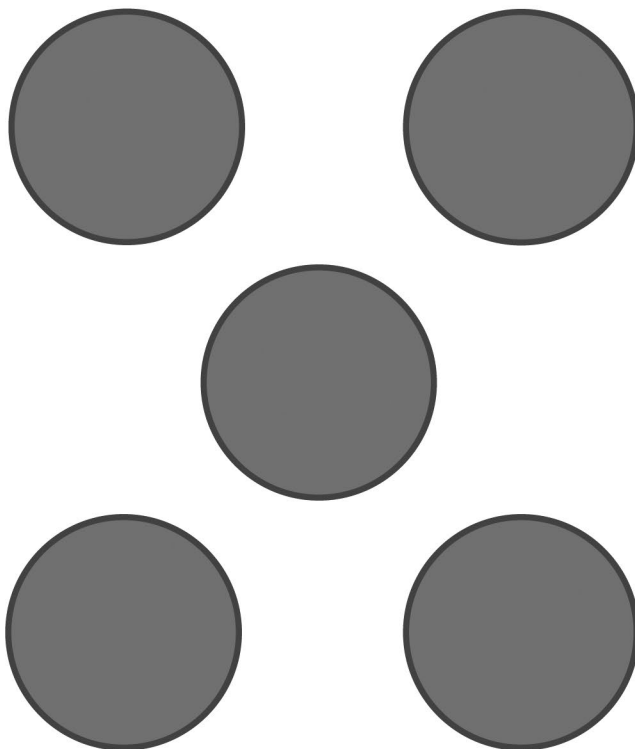
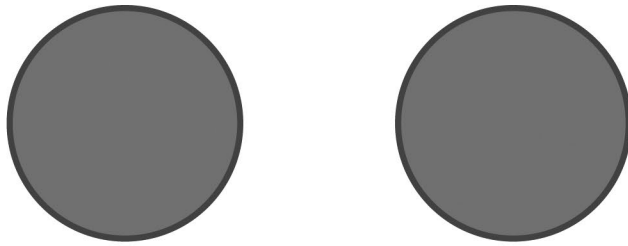




dot cards of 7

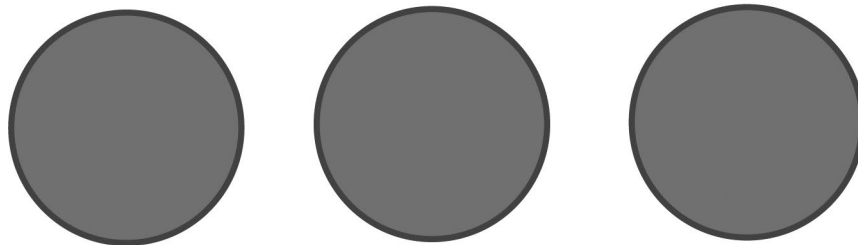
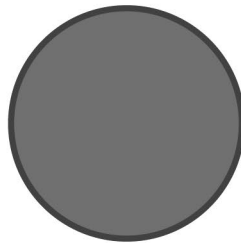
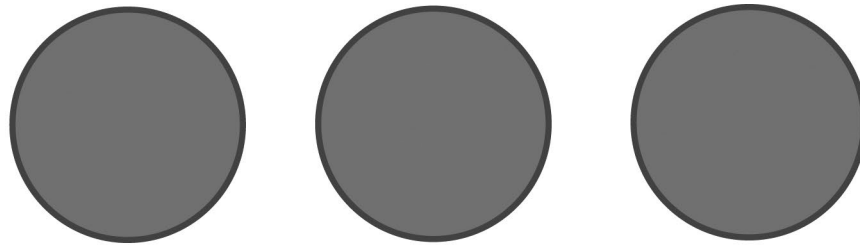


Lesson 5: Count straws the Say Ten way to 20; make a pile for each ten.



dot cards of 7

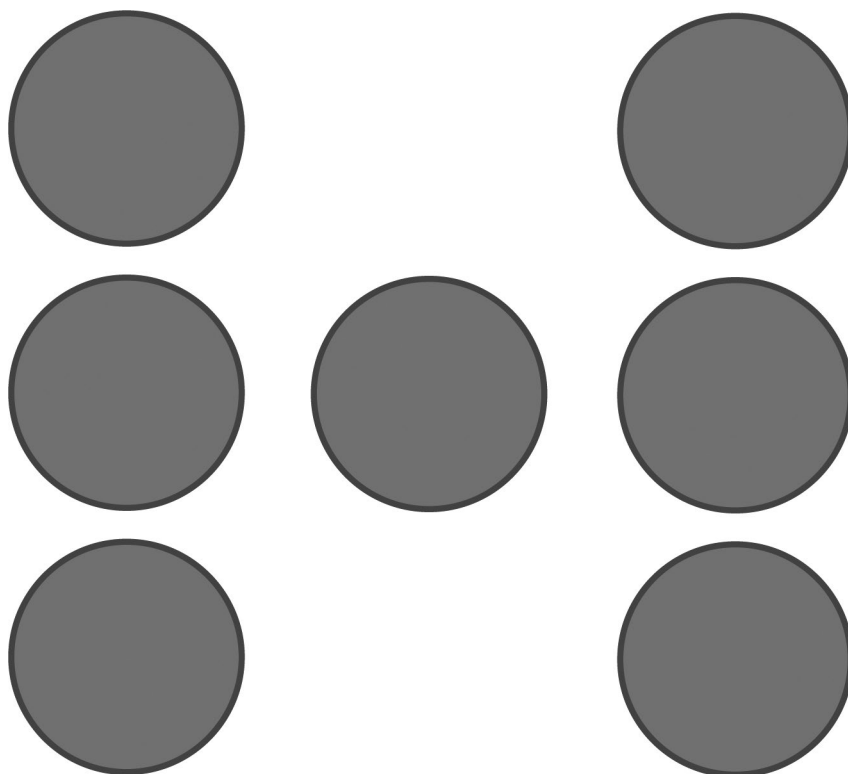




dot cards of 7

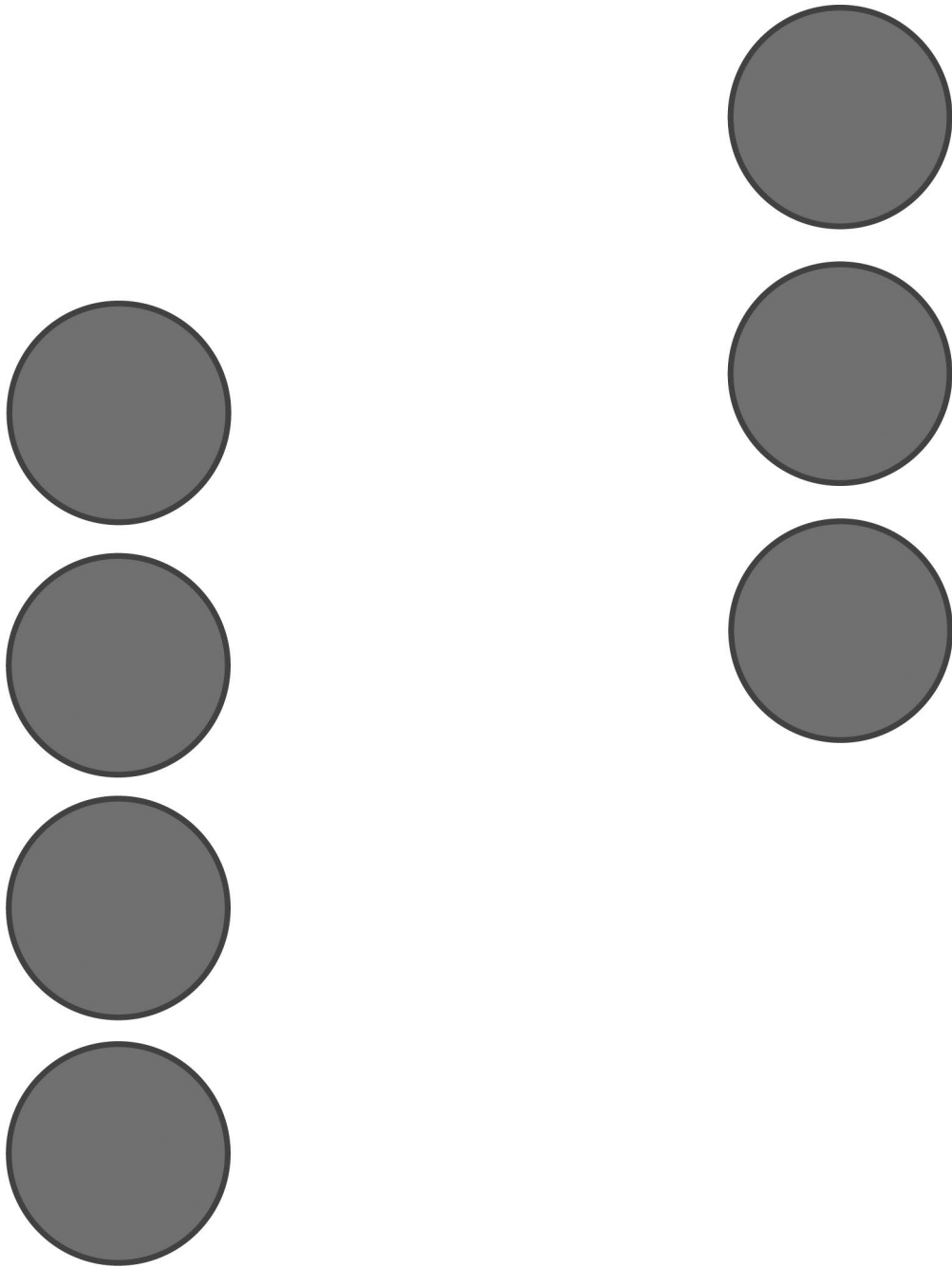


Lesson 5: Count straws the Say Ten way to 20; make a pile for each ten.



dot cards of 7

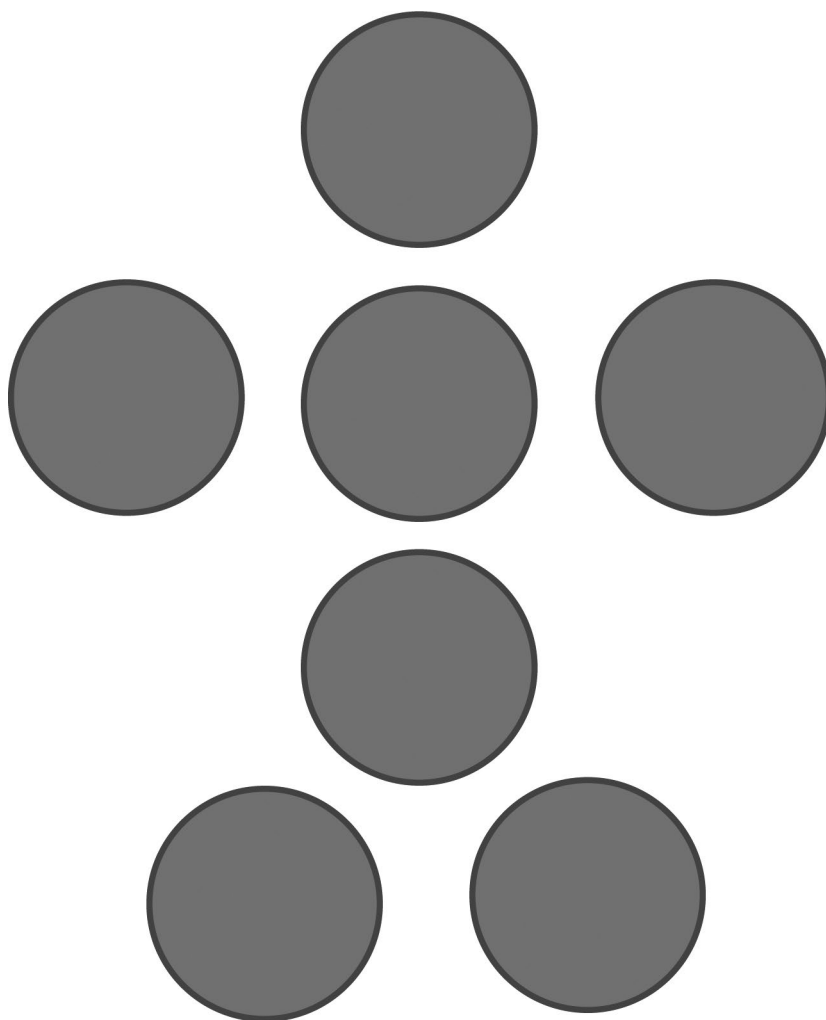




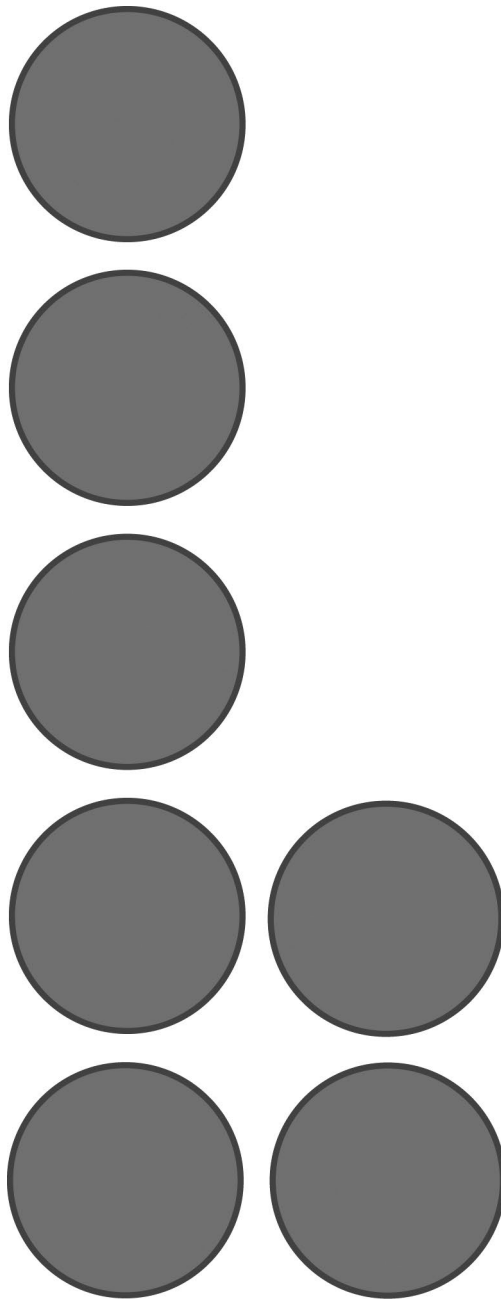
dot cards of 7



Lesson 5: Count straws the Say Ten way to 20; make a pile for each ten.



dot cards of 7



dot cards of 7



Lesson 5: Count straws the Say Ten way to 20; make a pile for each ten.

Name _____

Date _____

Circle sets of 10, and tell how many.

circle 10 ones





Topic B

Compose Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen Numbers

K.2A, K.2B, K.2E, K.2F, K.2C, K.2D, K.5A

Focus Standards:	K.2A	Count forward and backward to at least 20 with and without objects.
	K.2B	Read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures.
	K.2E	Generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20.
	K.2F	Generate a number that is one more than or one less than another number up to at least 20.
Instructional Days:	4	
Coherence	-Links from:	GK–M4 Number Pairs, Addition and Subtraction to 10
	-Links to:	G1–M2 Introduction to Place Value Through Addition and Subtraction Within 20

In Topic B, students advance to a more abstract level, representing the decomposition of teen numbers first with place value cards (place value cards) and in Lesson 7 with number bonds. They then work from the abstract to the concrete and pictorial in Lessons 8 and 9 as they are directed to “show (and in Lesson 9 draw) me this many cubes (as teacher displays 13).”

Application Problems in Topic B are experiences with decomposition and composition of teen numbers (**K.2E, K.2F**) rather than word problems (**K.3B**). For example, in Lesson 7, the problem reads, “Levi drew 10 smiley faces and 5 smiley faces. He put them together and had 15 smiley faces. Draw his 15 smiley faces as 10 smiley faces and 5 smiley faces.” In this instance, there is no unknown. We do not ask, “How many in all?” or “How many?” as within a word-problem setting. The students represent 15 with their place value cards, both when the zero is hiding and when it is not hiding, as they apply all their experiences from Topic A to deeply understand the meaning of the digit 1 in the tens place in teen numbers.



A Teaching Sequence Toward Proficiency in Composing Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen Numbers

- Objective 1:** Model with objects and represent numbers 10 to 20 with place value or place value cards.
(Lesson 6)
- Objective 2:** Model and write numbers 10 to 20 as number bonds.
(Lesson 7)
- Objective 3:** Model teen numbers with materials from concrete to abstract.
(Lesson 8)
- Objective 4:** Draw teen numbers from abstract to pictorial.
(Lesson 9)

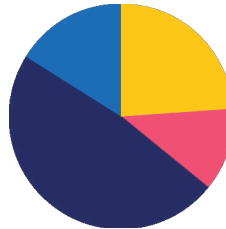


Lesson 6

Objective: Model with objects and represent numbers 10 to 20 with place value or place value cards.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(6 minutes)
■ Concept Development	(24 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- How Many More to Make 10? **K.2D, K.2I** (4 minutes)
- Dot Cards of Eight **K.2D, K.2I** (4 minutes)
- Counting Straws the Say Ten Way **K.2C** (4 minutes)

How Many More to Make 10? (4 minutes)

Materials: (T) Large 5-group cards (Lesson 1 Fluency Template 1) (S) 5-group cards (Lesson 1 Fluency Template 2)

Note: This activity helps students develop automaticity with partners to 10 through visualizing with the 5-group model.

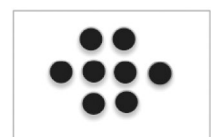
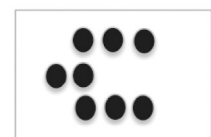
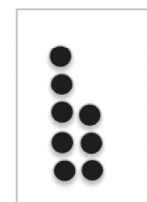
- T: (Show 5.) How many dots do you see?
 S: 5.
 T: How many more does 5 need to make 10?
 S: (Full sentence.) 5 needs 5 more to make 10.

Continue with the following possible sequence: 9, 8, 7, 6, 1, 4, 3, 9, 2, 5.
 Allow students to play with a partner briefly.

Dot Cards of Eight (4 minutes)

Materials: (T/S) Dot cards of 8 (Fluency Template)

Note: This fluency activity gives students an opportunity to develop increased familiarity with decompositions of eight and practice seeing part–whole relationships.



T: (Show a card with 8 dots.) How many dots do you count? Wait for the signal to tell me.

S: 8.

T: How can you see them in 2 parts?

S: (Students come up to the card.) I saw 4 here and 4 here. → I saw 5 here and 3 here.
→ I saw 6 here and 2 here.

Repeat with other cards. Pass out the cards for students to work with a partner.

Counting Straws the Say Ten Way (4 minutes)

Materials: (T) Large 5-group cards (Lesson 1 Fluency Template 1) (S) 5-group cards (Lesson 1 Fluency Template 2), 20 straws (per pair)

Note: Counting the Say Ten way prepares students to think of ten as part of a teen number in today's Concept Development.

T: (Show 10 and 3.) Say the number the Say Ten way.

S: Ten 3.

T: Count out that many straws with your partner.

Repeat the process with other teen numbers. Give students time to practice this exercise with a partner briefly.

Application Problem (6 minutes)

There are 18 students: 10 girls and 8 boys. Draw the 18 students as 10 girls and 8 boys.



Note: Remember that the focus is on counting all to find the total rather than counting on or addition.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Support students who need more support, including some emergent bilingual students, by matching the linking cubes to the quantity and picture of the girls and boys from the Application Problem. This way, when asked, “What color is represented by the girls?” and “What color is represented by the boys?” students will already know the answer and can focus on answering mathematical questions.

Concept Development (24 minutes)

Materials: (T) Large place value cards (Template 1) (S) place value cards: 1 place value 10 card (Template 2) with 5-group cards 1–9 (Lesson 1 Fluency Template 2), two sets of 10 linking cubes (10 in one color and 10 in another color), personal white board (per pair)

- T: Have one color of your cubes represent the boys and another one the girls from the story in the Application Problem. Show me the boys and girls that were in school. When you are done, check your partner's work to be sure you agree.
- T: (Allow students time to finish.) Everyone hold up the stick that represents the girls. (Students do so.) Hold up the stick that represents the boys. (Students do so.)
- T: How many girls are there?
- S: 10 girls.
- T: Show the girls. (Students show again.) Here is the number 10. (Show the 10 card.)
- T: How many boys are there?
- S: 8 boys.
- T: Show the boys. (Students show again.) Here is the number 8. (Show the 8 card.)
- T: Put the boys together with the girls. Count with your partner the Say Ten way to see how many students you have.
- S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, ten 1, ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8. (Have early finishers count down to 1 from 18.)
- T: How do we say the number of students the Say Ten way?
- S: Ten 8.
- T: Watch this magic. Here is my 10. Here is my 8. I push them together, and I have ten 8. This is how we write the number 18. (Add this next to the place value card of 18.)
- T: Talk to your partner. What happened to the 0 of the 10 ones?
- S: It went under the 8. → It disappeared. → It isn't there anymore.
→ It is hiding.
- T: Yes! It is hiding. I'm going to write the number 18 without the cards. (Write 18.) It is like there is a 0 hiding under this 8.
- T: I want each of you to write this number on your personal white board. When I say to show me your board, show me.
- S: (Write 18 on the personal white board.)
- T: Show me!
- S: (Hold up personal white board.)
- T: Here is a bag with a set of these cards for you. Partner A, open the bag, and put all the numbers on your work mat. With your partner, put them in order from 1 to 10. (Wait.)
- T: Partner B, show me ten 8 with your cards. Be sure to hide the zero!

1	0
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8



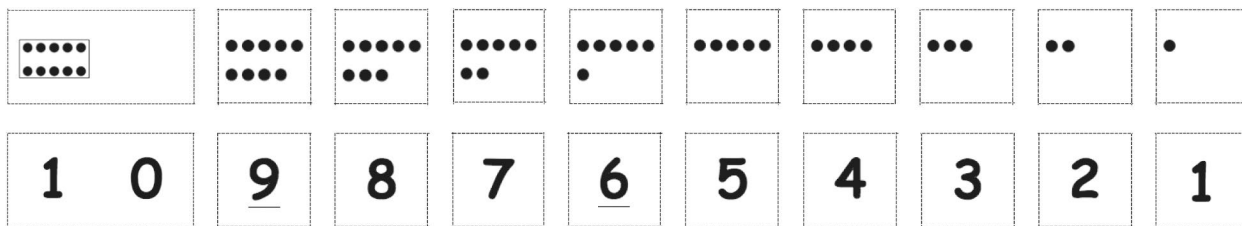
1	8
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- T: Partner A, on this first turn, you will use the cubes. Partner B, you will use the cards and write the number on your personal white board.
- T: Partners, show me ten 1.
- T: Partner B, use the cubes, and Partner A, use the cards. Show me ten 5.

Continue the activity using other numbers. Different groups might work at varying speeds.

After about four different numbers, change the mode of representation from linking cubes to the dot side of the place value cards. Have students place the cards in decreasing order from 10 to 1 (for variety), and then match them with the corresponding numeral side. Repeat the process with about four more numbers.



Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Have students use their place value cards while doing the Problem Set, drawing the number represented and then writing the teen number.

Early finishers can be given another number to represent both pictorially and with cards on the back.

Student Debrief (8 minutes)

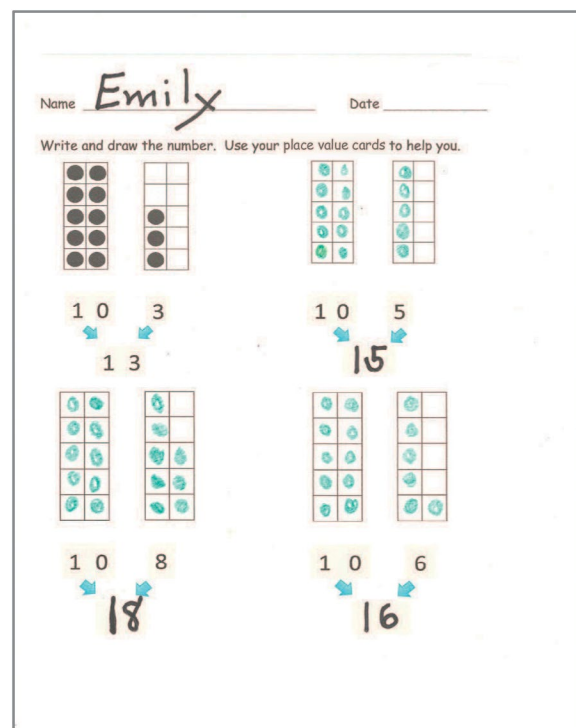
Lesson Objective: Model with objects and represent numbers 10 to 20 with place value or place value cards.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Introduce the cards as **place value cards**. Then, possibly discuss:

- Why do you think we call these cards place value cards?



- How is the number made by the place value cards different from, and the same as, the number written with pencil?
- How do the cards help you to understand the number 13? 18?
- If you didn't know the 0 was hiding, you might think the 1 in 13 was equal to 1 instead of 10. Then, the total value would be 4 because $1 + 3$ is 4.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

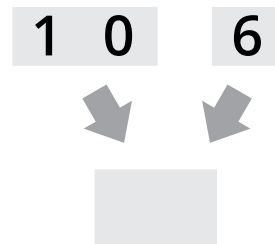
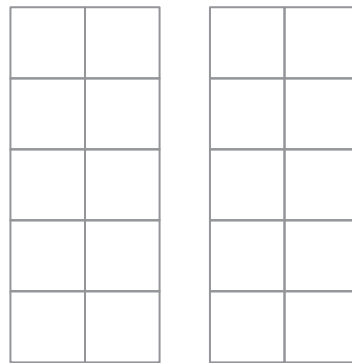
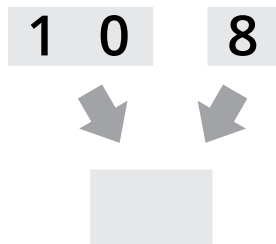
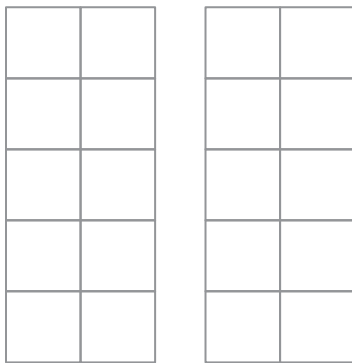
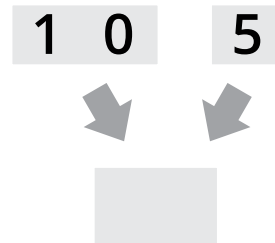
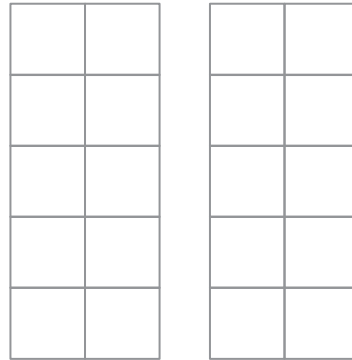
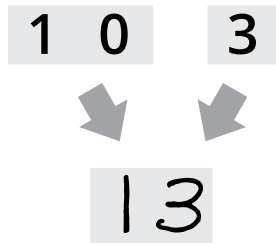
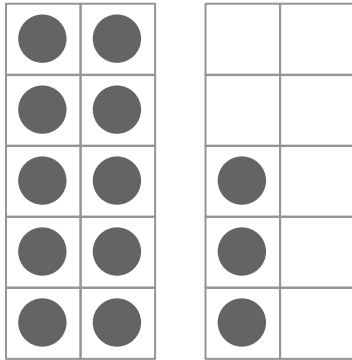
Students needing more proficiency practice will benefit from additional hands-on time with a Rekenrek. Look for opportunities to give them control of the movement of the beads. They may move the beads slowly or erratically. This allows students to hold a number in their minds and wait for the movement of the bead rather than simply rote count.



Name _____

Date _____

Write and draw the number. Use your place value cards to help you.

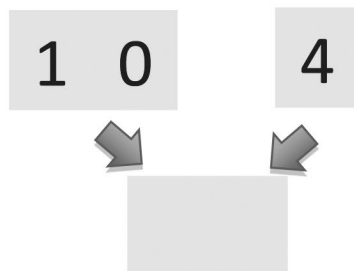
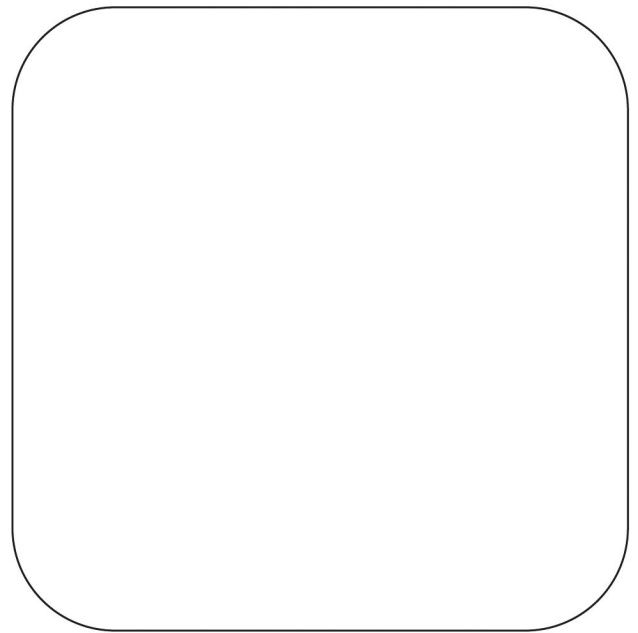


Name _____

Date _____

Draw the number shown on the place value cards with a drawing in the ten-frame. Write the number below after the 0 is hidden.

Show the number again on the right with a count of 10 ones and 4 ones. Circle the 10 ones.



Name _____

Date _____

Write and draw the number. Use your place value cards to help you.

1	0
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2

↓ ↓

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1	0
---	---

7

↓ ↓

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1	0
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9

↓ ↓

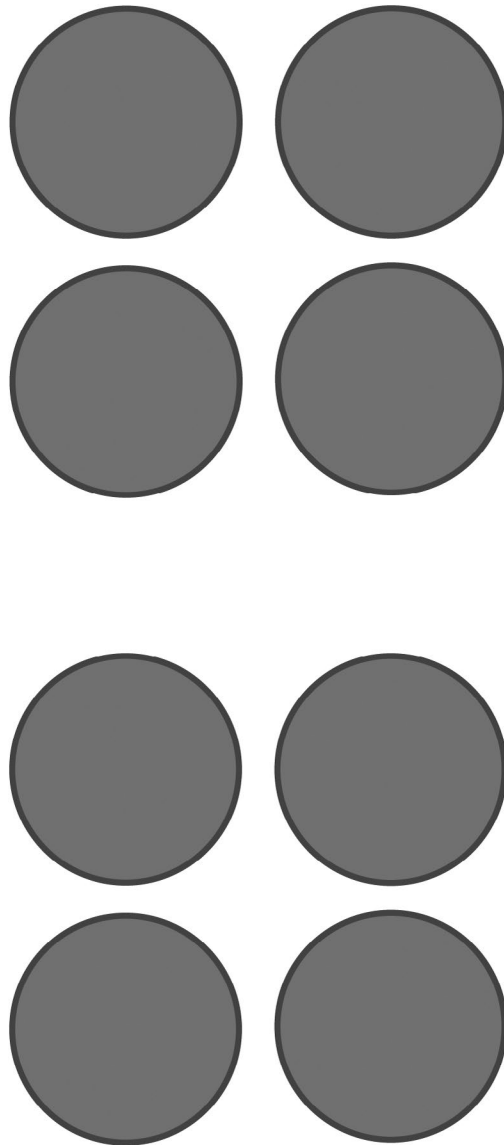
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1	0
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4

↓ ↓

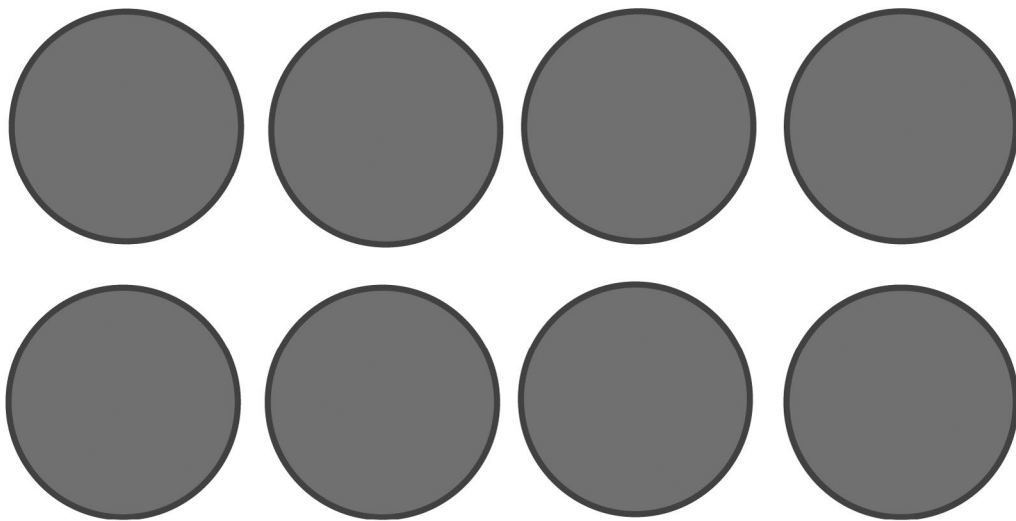
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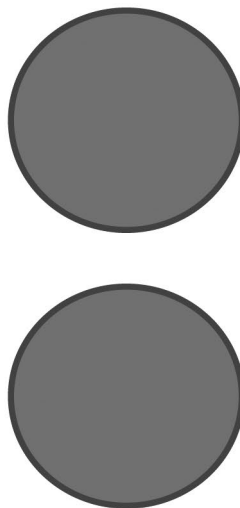
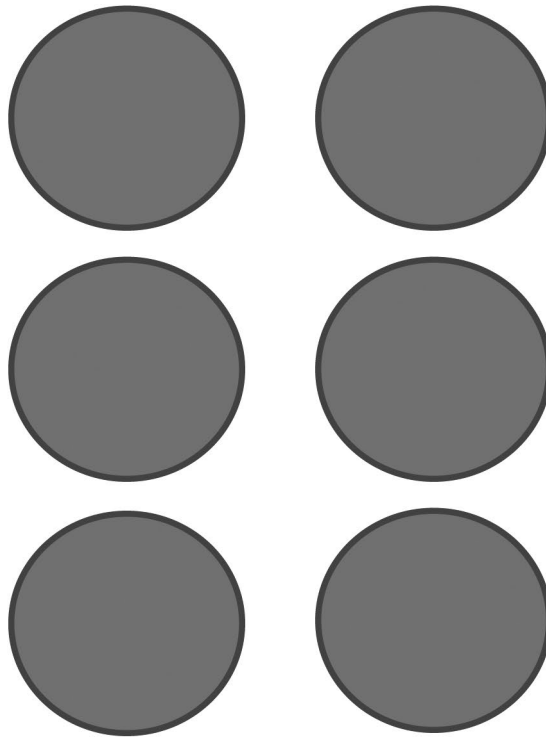
dot cards of 8

**Lesson 6:**

Model with objects and represent numbers 10 to 20 with place value or place value cards.



dot cards of 8

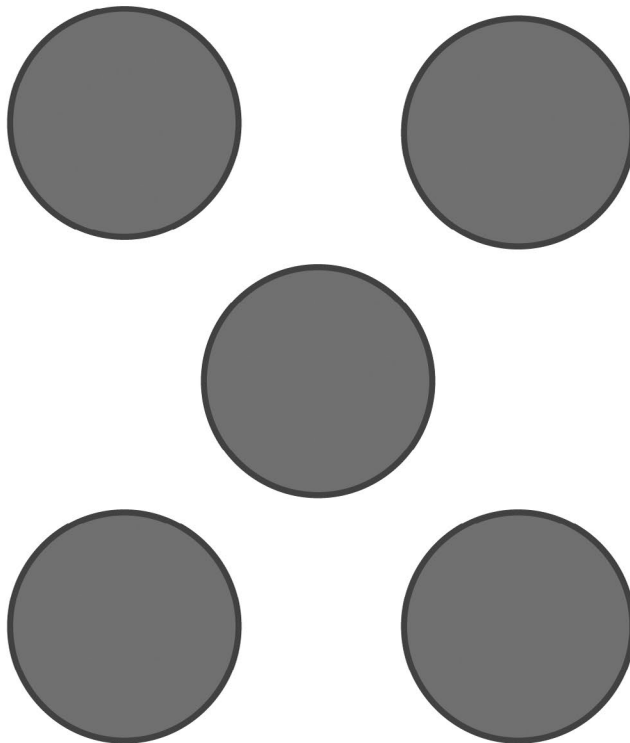
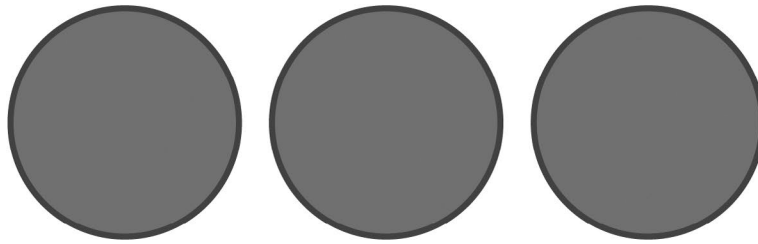


dot cards of 8

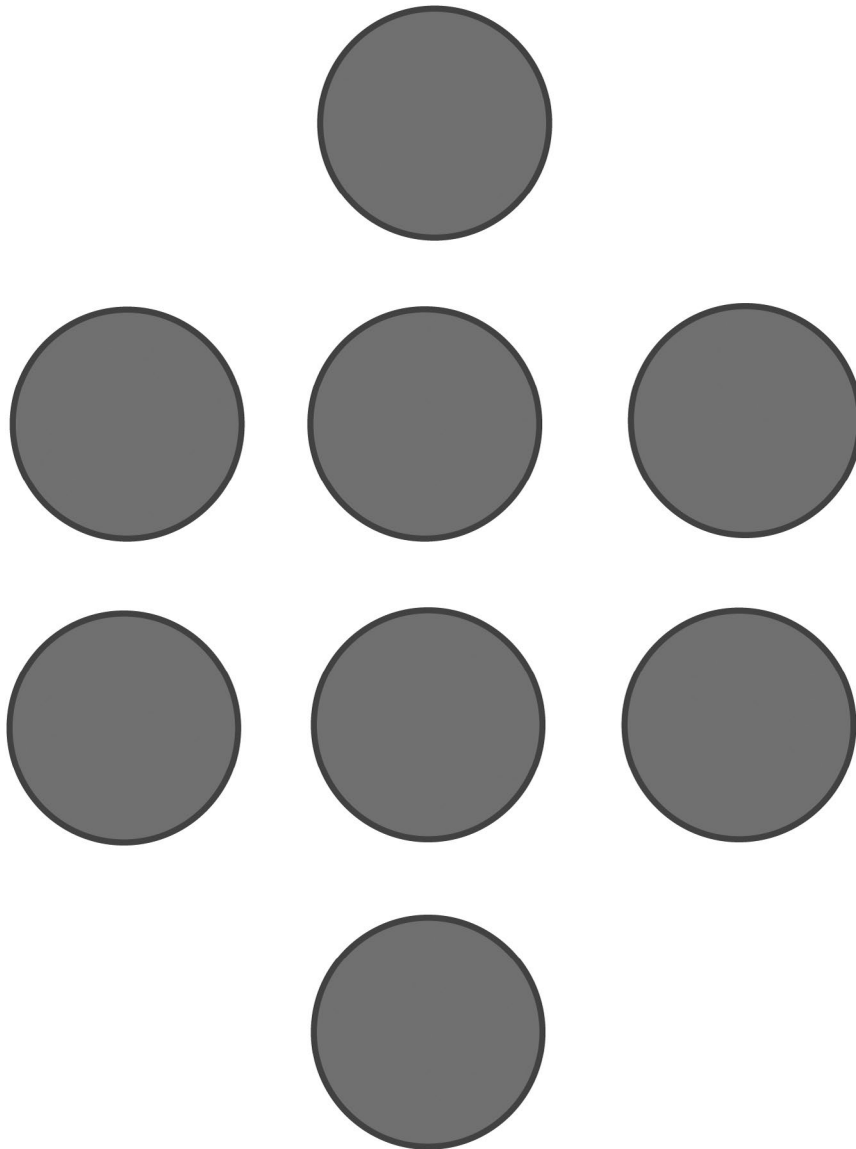


Lesson 6:

Model with objects and represent numbers 10 to 20 with place value or place value cards.



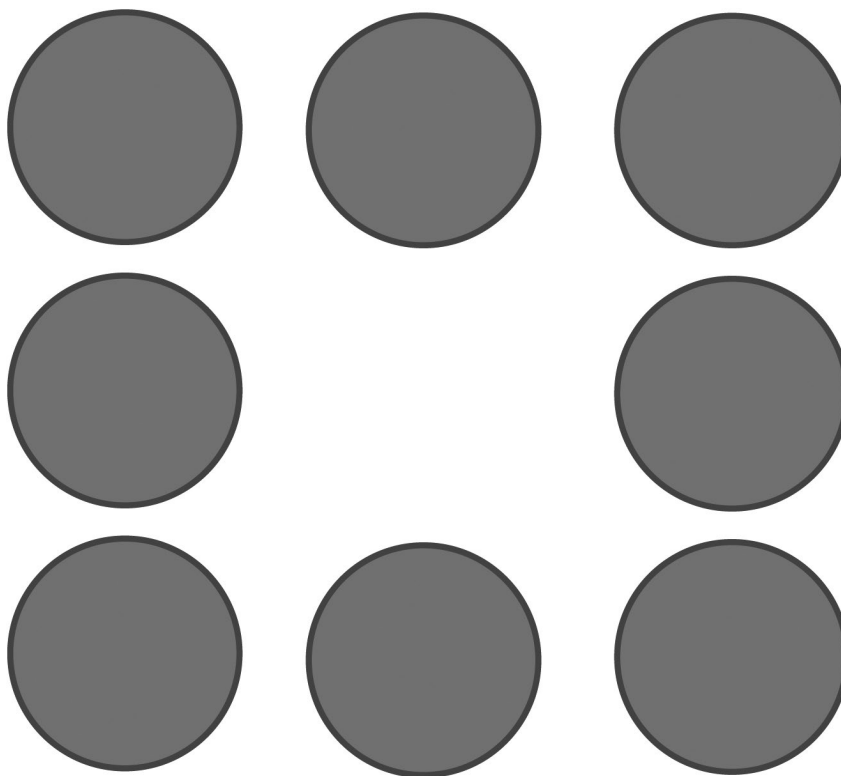
dot cards of 8



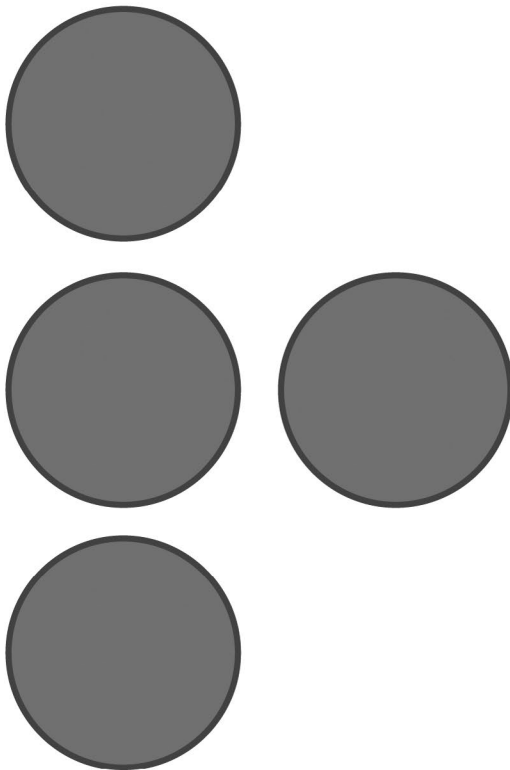
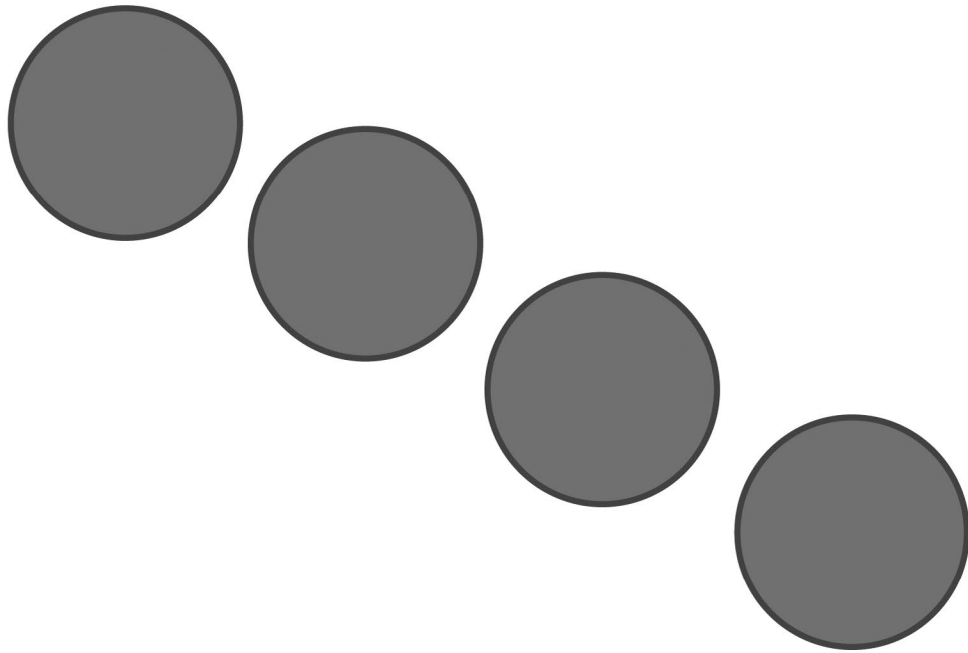
dot cards of 8

**Lesson 6:**

Model with objects and represent numbers 10 to 20 with place value or place value cards.



dot cards of 8

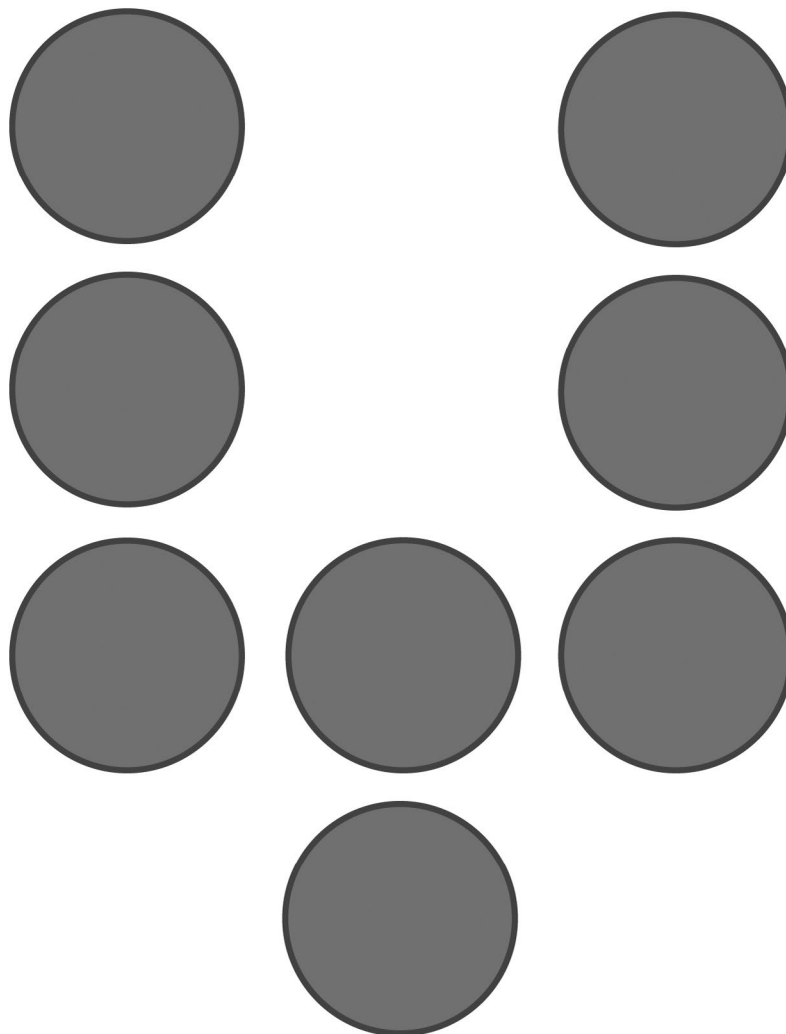


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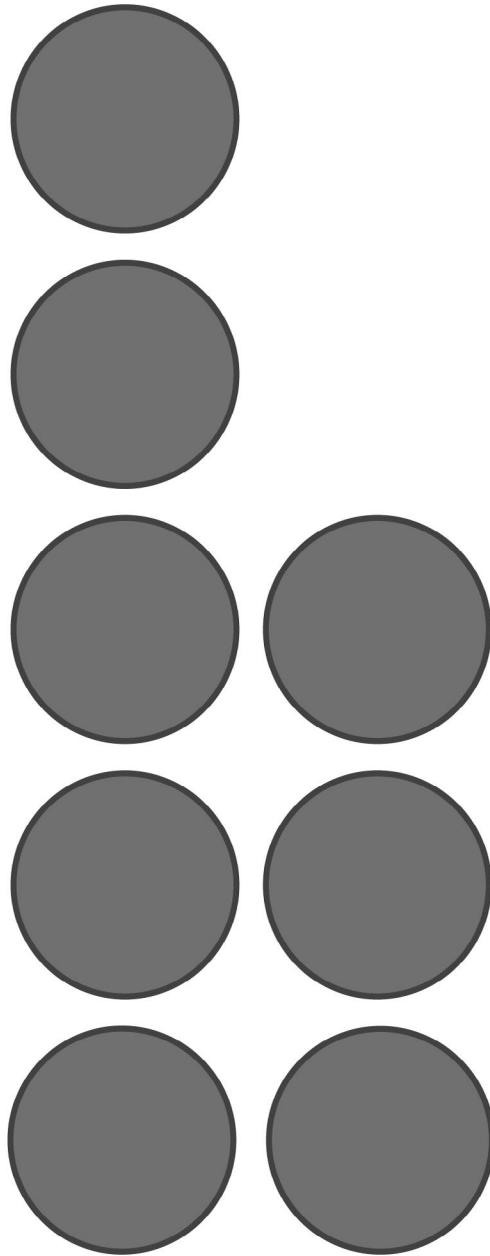
Lesson 6:

Model with objects and represent numbers 10 to 20 with place value or place value cards.



dot cards of 8

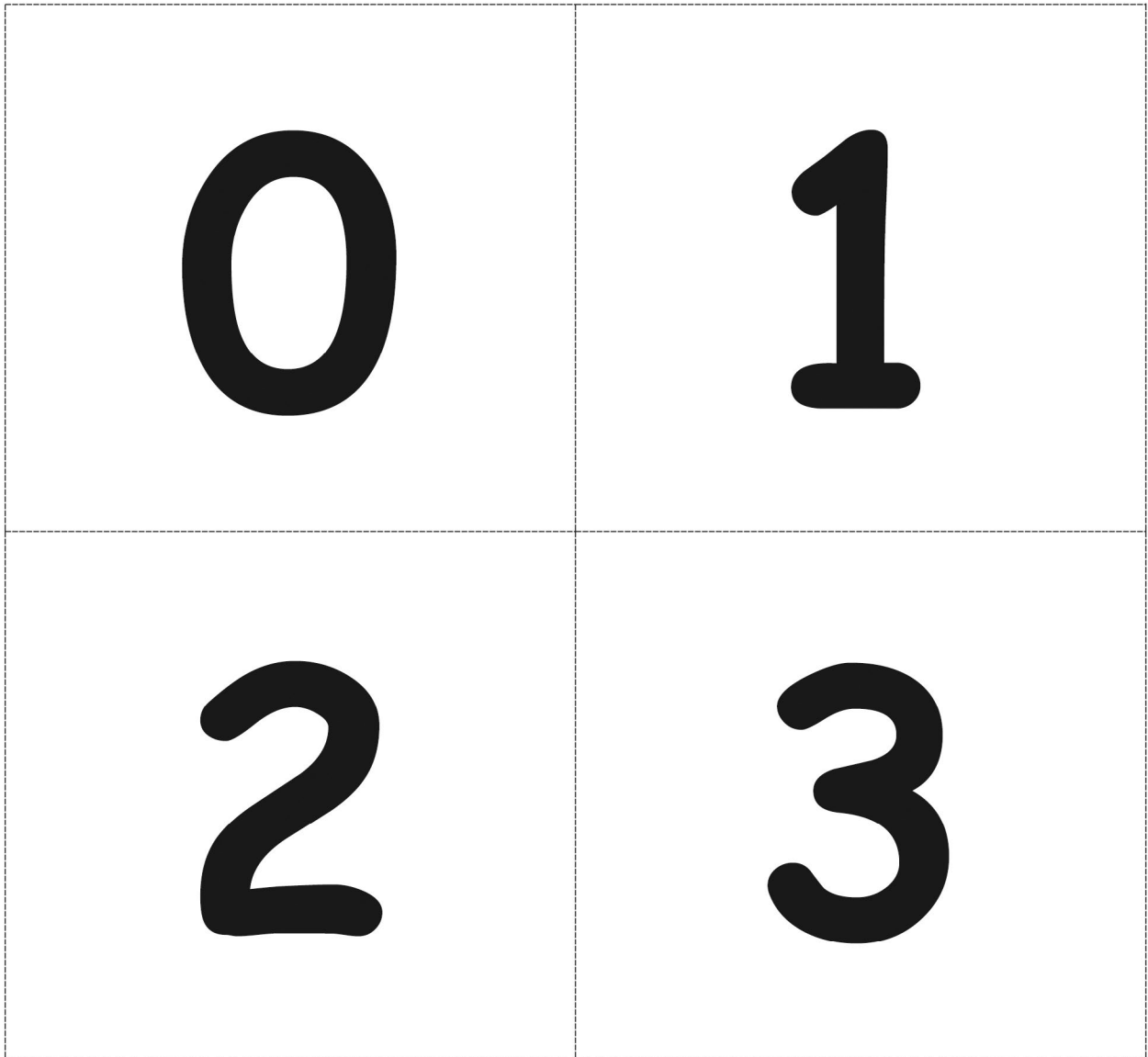




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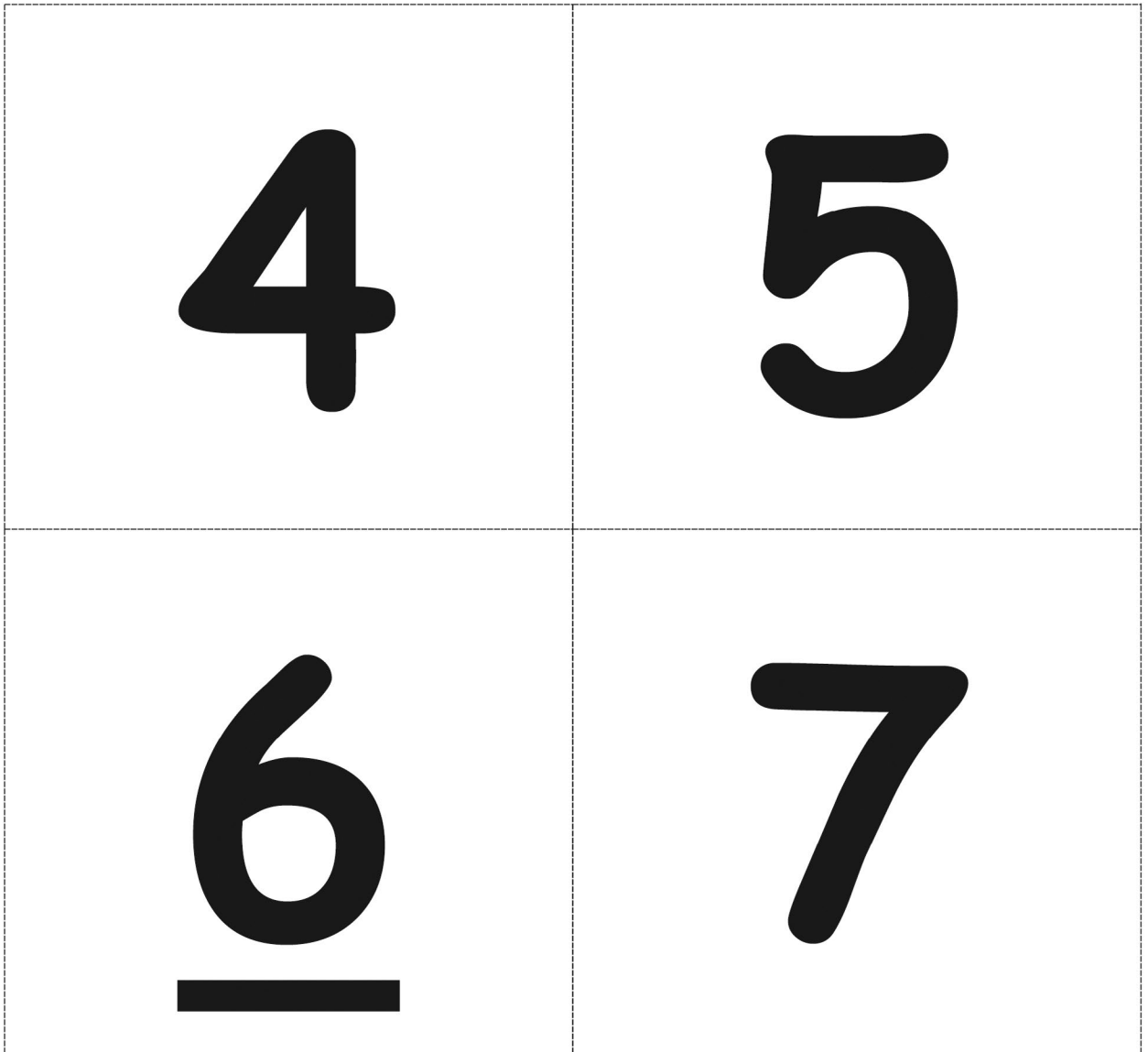
**Lesson 6:**

Model with objects and represent numbers 10 to 20 with place value or place value cards.



Note: Match to corresponding 5-group side and copy double-sided on card stock.

large place value cards (numeral side)



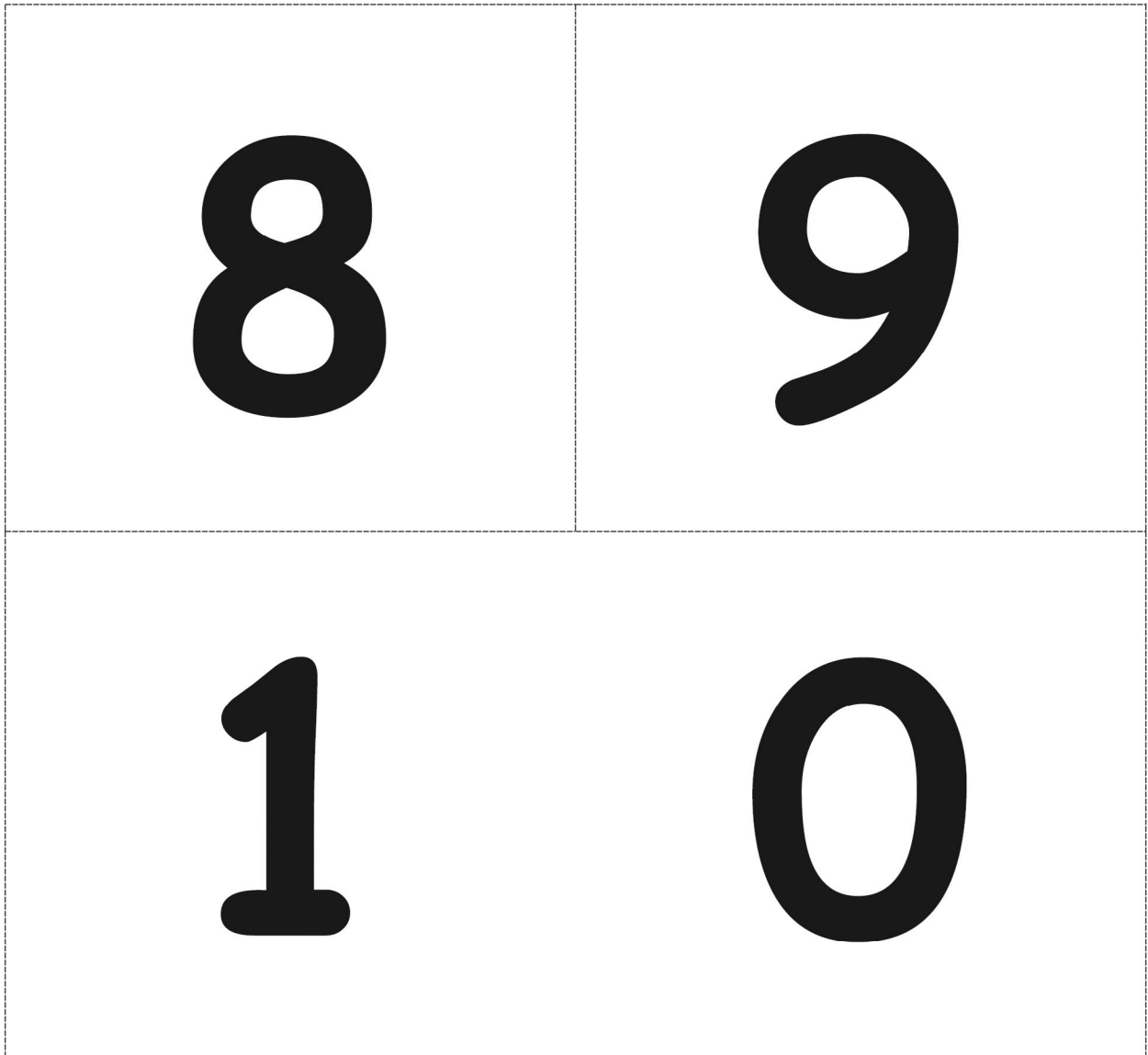
Note: Match to corresponding 5-group side and copy double-sided on card stock.

large place value cards (numeral side)



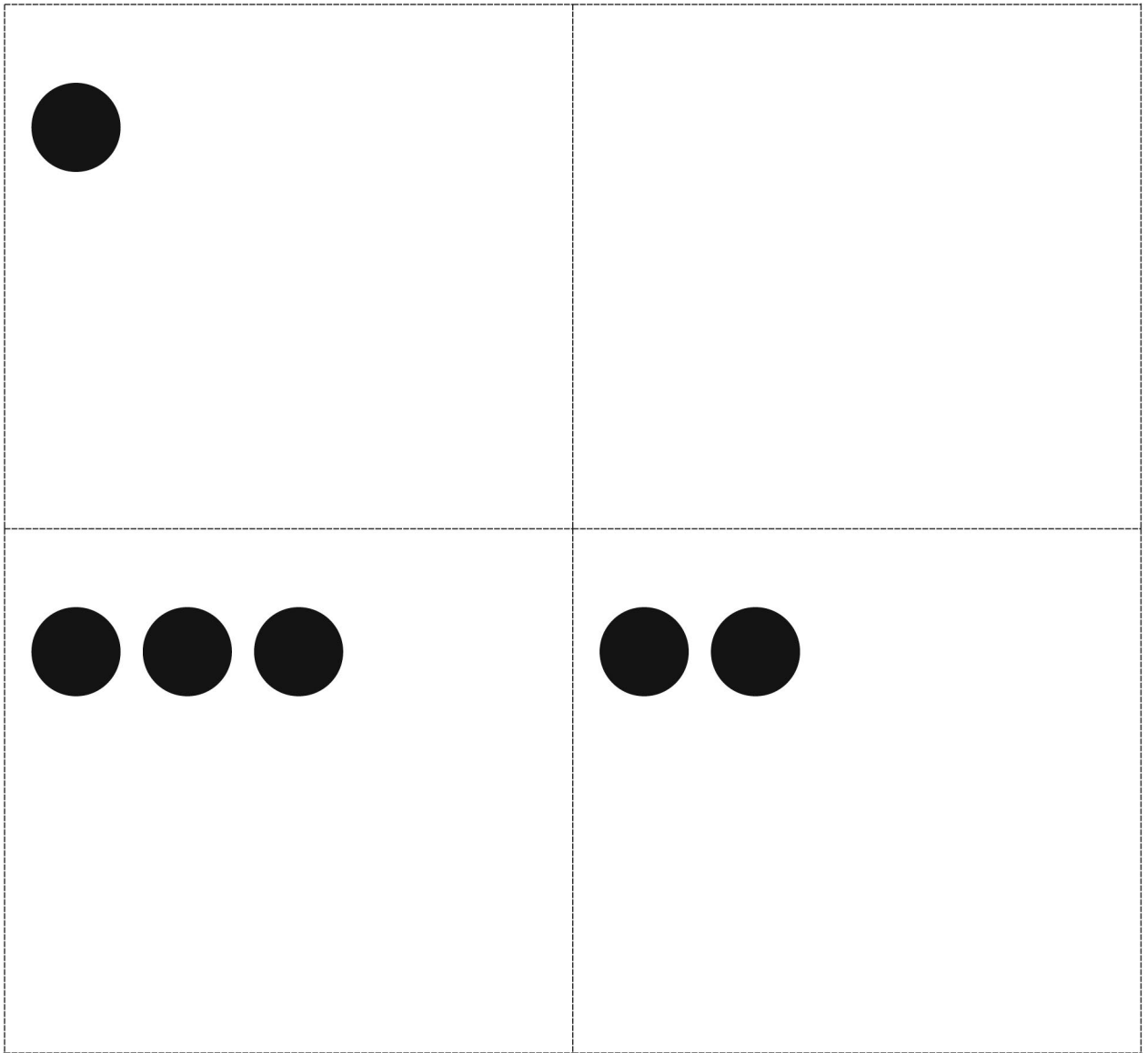
Lesson 6:

Model with objects and represent numbers 10 to 20 with place value or place value cards.



Note: Match to corresponding 5-group side and copy double-sided on card stock.

large place value cards (numeral side)









Note: Match to corresponding numeral side and copy double-sided on card stock.

large place value cards (5-group side)



Lesson 6:

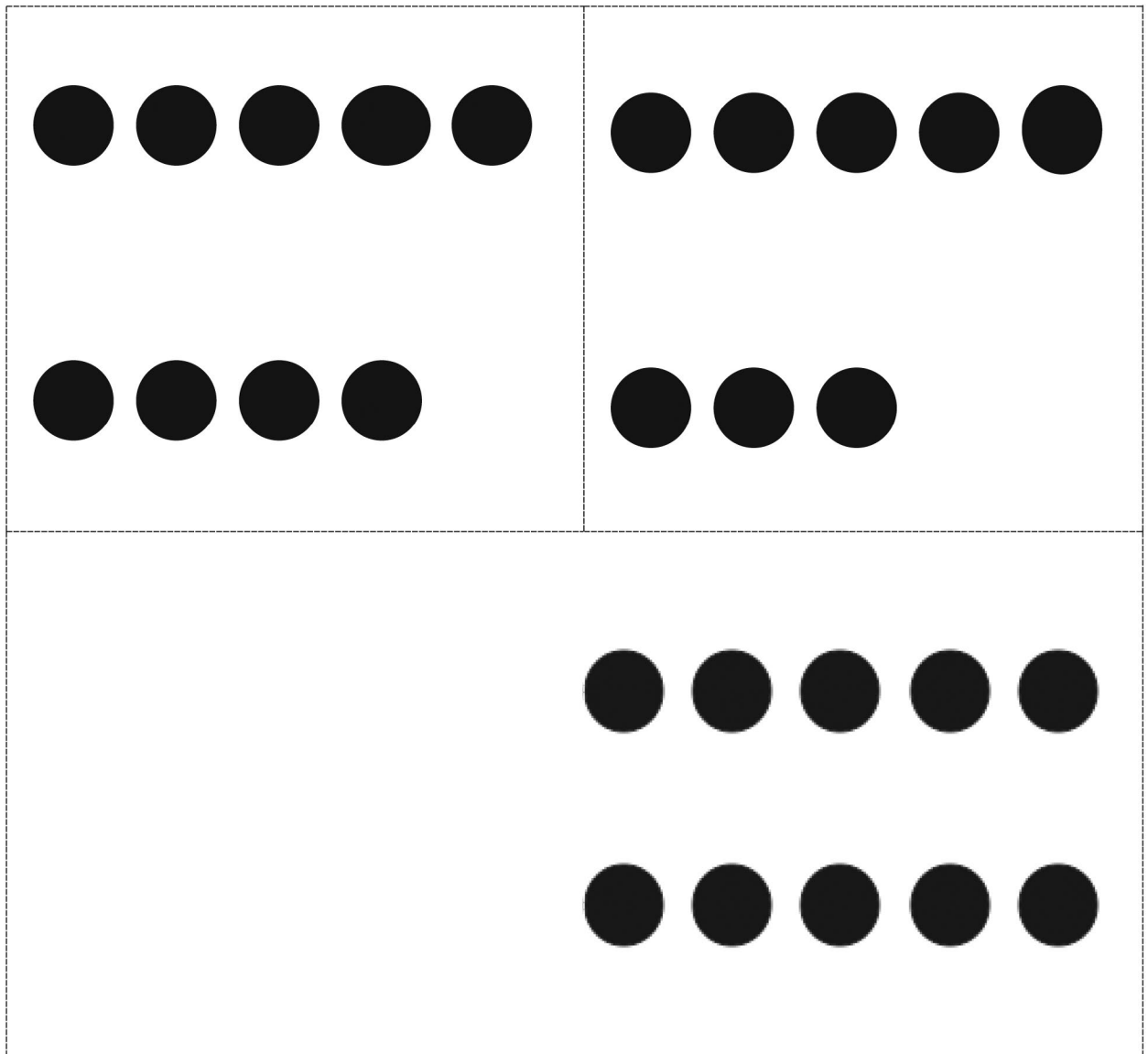
Model with objects and represent numbers 10 to 20 with place value or place value cards.

Note: Match to corresponding numeral side and copy double-sided on card stock.

large place value cards (5-group side)





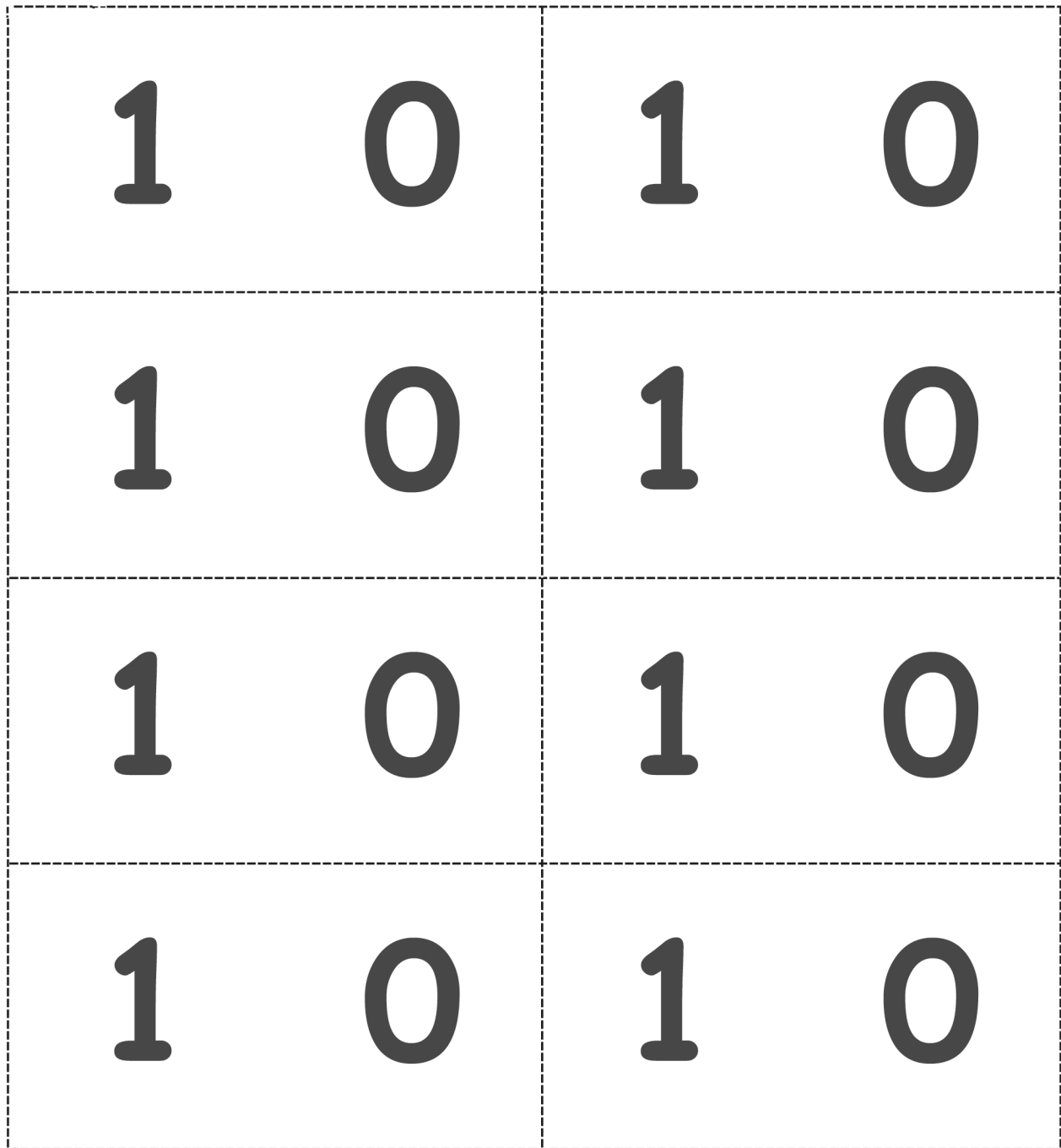
Note: Match to corresponding numeral side and copy double-sided on card stock.

large place value cards (5-group side)



Lesson 6:

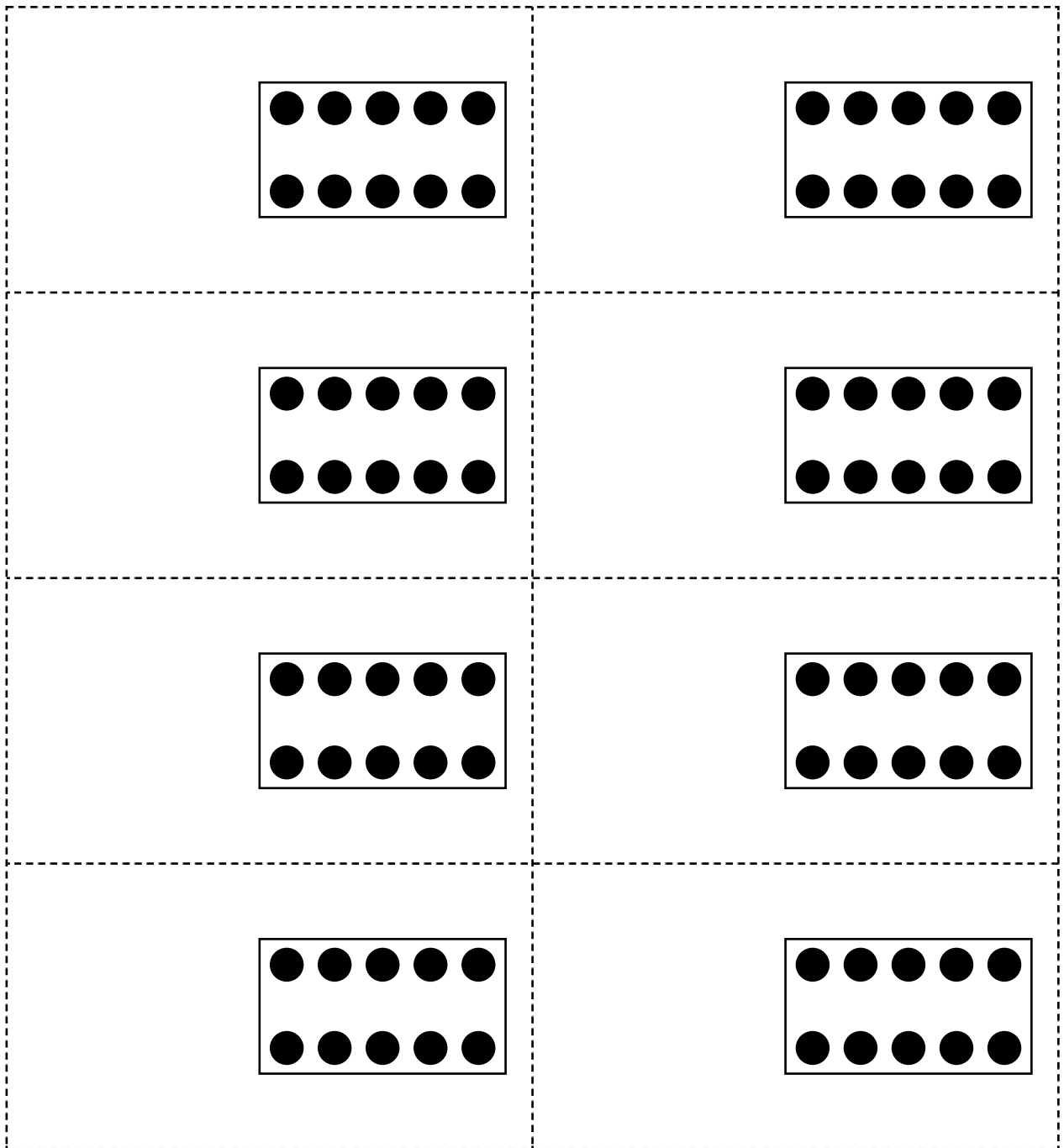
Model with objects and represent numbers 10 to 20 with place value or place value cards.



Note: Copy double-sided with the place value 10 cards (5-group side) on card stock. Each student needs one, double-sided place value 10 card. This card is used with 5-group cards 1–9 (Lesson 1 Fluency Template 2), which combined, make the full set of place value cards.

Place value 10 cards (numeral side)





Note: Copy double-sided with the place value 10 cards (numeral side) on card stock. Each student needs one, double-sided place value 10 cards. This card is used with 5-group cards 1–9 (Lesson 1 Fluency Template 2), which combined, make the full set of place value cards.

Place value 10 cards (5-group side)

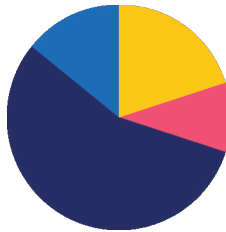


Lesson 7

Objective: Model and write numbers 10 to 20 as number bonds.

Suggested Lesson Structure

■ Fluency Practice	(10 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(28 minutes)
■ Student Debrief	(7 minutes)
Total Time	(50 minutes)



Fluency Practice (10 minutes)

- Dot Cards of Eight **K.2D, K.2I** (4 minutes)
- Counting **K.2A, K.5A** (3 minutes)
- Decompose Teen Numbers **K.2I** (3 minutes)

Dot Cards of Eight (4 minutes)

Materials: (T/S) Dot cards of 8 (Lesson 6 Fluency Template)

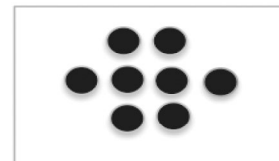
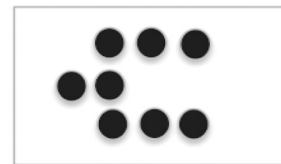
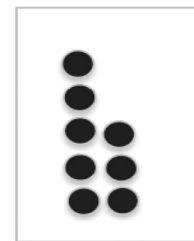
Note: This fluency activity gives students an opportunity to develop increased familiarity with decompositions of eight and practice seeing part–whole relationships.

T: (Show a card with 8 dots.) How many dots do you count?
Wait for the signal to tell me.

S: 8.

T: How can you see them in 2 parts?

S: (Students come up to the card.) I saw 4 here and 4 here.
→ I saw 5 here and 3 here. → I saw 6 here and 2 here.



Repeat with other cards. Pass out the cards for students to work with a partner.

Counting (3 minutes)

Note: Extending the counting sequence on partners' fingers prepares students to model teen numbers as 10 ones and some ones.

Partners hover their hands as if playing the piano. Student on the teacher’s right begins by “playing” the pinky of the left hand and continuing from left to right. Once a finger is counted, it remains down on the keyboard.

Students count their own and their partner’s fingers first the Say Ten way, ten 1, ten 2, etc., and then in standard form. Have them count down from 20 to 0 if they finish early.

Decompose Teen Numbers (3 minutes)

Materials: (T) Large place value cards (Lesson 6 Template 1) (emphasize the breaking apart of numbers by separating the cards as students say numbers the Say Ten way and the regular way.)

Note: Breaking apart teen numbers with the place value cards prepares students to work with number bonds in today’s Concept Development.

T: (Show 12.) Say the number the regular way.

S: 12.

T: (Separate the cards.) Say 12 the Say Ten way.

S: Ten 2.

Continue with the following possible sequence: 13, 14, 19, 11, 10, 15, 17, 16, 18.

Application Problem (5 minutes)

Materials: (S) place value cards: 1 place value 10 card (Lesson 6 Template 2) and 5-group cards 1–9 (Lesson 1 Fluency Template 2)

Levi drew 10 smiley faces and 5 smiley faces. He put them together and had 15 smiley faces. Draw the 15 smiley faces as 10 smiley faces and 5 smiley faces. Then, draw 15 with place value cards when the zero is hiding and when the zero is not hiding.

Note: Word problems involving quantities above 10 begin in Grade 1. Many of the application problems in Module 5 are simply decomposition and composition experiences (K.2E, K.2F). Note that the problems do not ask, “How many in all?” or “How many?” Also note that there is no unknown in problems of this type.



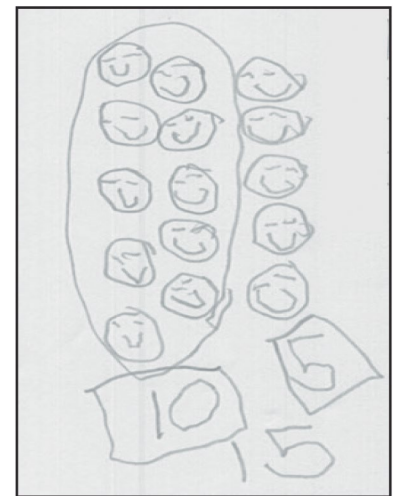
NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

If students need more support with the Application Problem, pair them with a partner or put them in a small group to solve the problem. Form a small group, and assign “jobs” so students hold each other accountable.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

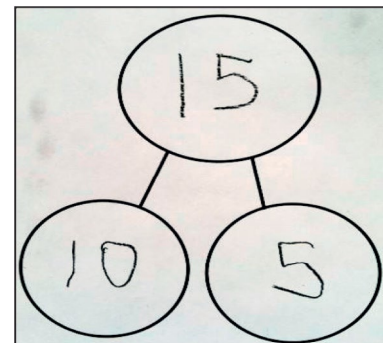
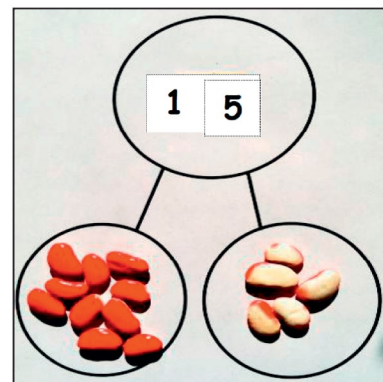
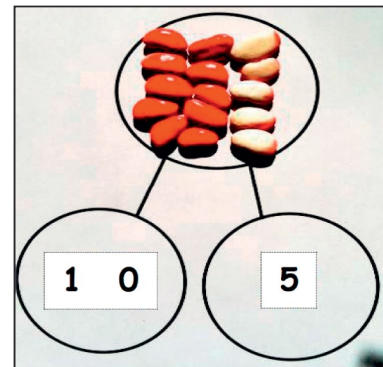
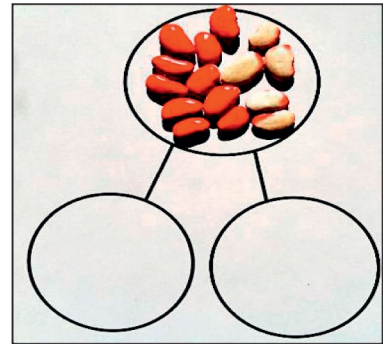
Scaffold the lesson for students who need more support, including some emergent bilingual students, by introducing the terms *total* and *part*. Use pictures of other visual aids of a total and a part. Post the words with the visual on the word wall so that students can continuously refer to them.



Concept Development (28 minutes)

Materials: (T) Large place value cards (Lesson 6 Template 1), (S) 20 two-sided counters in a clear plastic bag (white beans spray painted red on one side, commercial two-sided counters, etc.), number bond (Template) within a personal white board, 1 set of place value cards: 1 place value 10 card (Lesson 6 Template 2) and 5-group cards 1-9 (Lesson 1 Fluency Template 2) (per pair)

- T: Here is Levi's number with my place value cards.
- T: Show Levi's number with your 2-sided counters in the "total place" of your number bond. Make 10 ones a different color from the other ones.
- S: (Students do so.)
- T: Our number bond is not complete! We haven't shown the parts!
- T: What number parts are made by the two colors?
- S: 10 ones and 5 ones.
- T: Show those 2 parts with your own place value cards.
- T: (See the picture to the right.) Is 15 beans the same number as 10 and 5?
- S: (Give the students time to recount.) Yes.
- T: Now, our number bond is correct!
- T: Let's switch it. Slide your counters down to be the two parts: 10 ones in a part and 5 ones in a part.
- T: Show 15 with your place value cards in the total place of your number bond.
- T: Does 15 tell us the total number of beans in the 2 parts?
- S: (Give students time to count.) Yes.
- T: Now, our number bond is correct again!
- T: Let's replace the place value cards with a written number. Slide the cards off the total place. What number will you write?
- S: 15.
- T: Slide off your beans from the parts. What numbers will you write to take their place?
- S: 10 and 5.
- T: Is 15 the same as 10 and 5?
- S: Yes.
- T: What is the total?
- S: 15 (or ten 5).



- T: What are the parts?
- S: 10 and 5.
- T: 15 is the same as ten 5. Our number bond is correct again!
- T: Use your beans and place value cards to make number bonds that are correct.

Repeat the sequence with different numbers of beans. Let students go to work independently as they are able while guiding a smaller group that still needs guided practice. Do not let the equality be unresolved. For example, their number bond is not correct if they have 10 beans and 5 beans but nothing in the total place. The parts must always be equal to the total. Students may realize they can switch the order of the 10 ones and extra ones. That is good!

Close the session by having students write a number bond without using the template. This is review from Module 4 where they learned about the “total place” and how to draw a number bond.

Name Rosario Date _____

Look at the place value cards or the 10-frame cards. Use your cards to show the number. Write the number as a number bond.

Problem Set (8 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Be sure that students whisper speak as they work. For example, when saying “ten 2,” they write the 1 and then the 2. By saying “ten 2” simultaneously, they internalize the meaning of the 1 as standing for 10 ones.

Student Debrief (7 minutes)

Lesson Objective: Model and write numbers 10 to 20 as number bonds.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience. Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Circle 10 smiley faces. Draw a number bond to match the total number of faces.



Any combination of the questions below may be used to lead the discussion.

- Tell me about the pattern you see on your Problem Set.
- How are the number bonds and place value cards helping you to understand the numbers from eleven to twenty?
- How does counting the Say Ten way help you understand?
- How is this 1 in thirteen the same as this 1 in nineteen? When you made your number bonds, what stayed the same and what changed?
- When you see the number eleven, how are those two 1s different?

Exit Ticket (3 minutes)

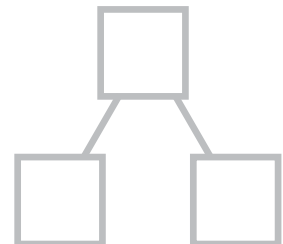
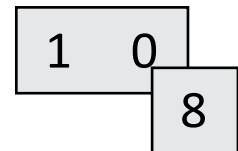
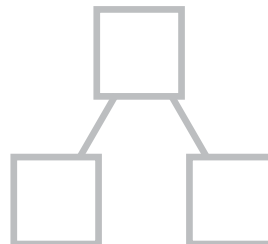
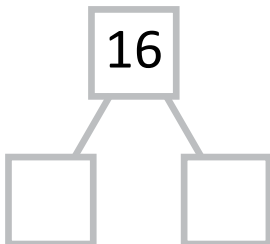
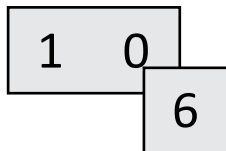
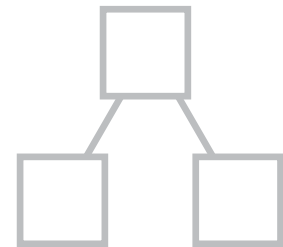
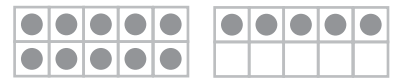
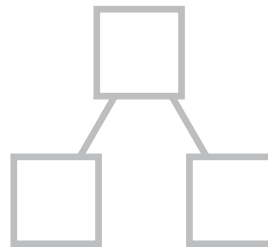
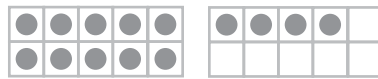
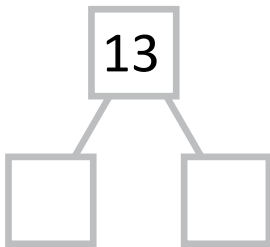
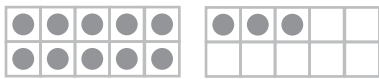
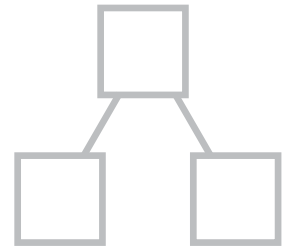
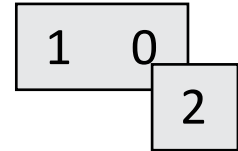
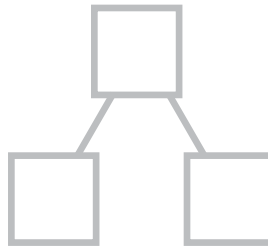
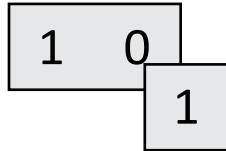
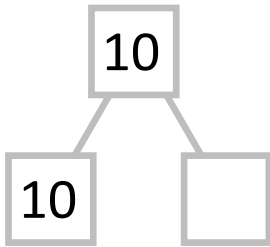
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and plan more effectively for future lessons. The questions may be read aloud to the students.

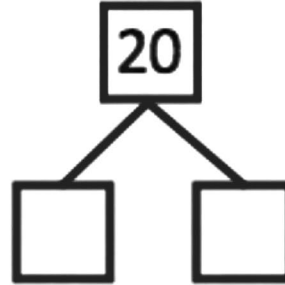
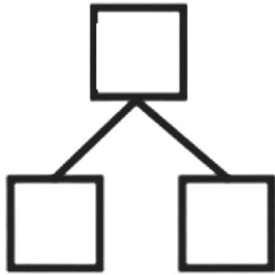
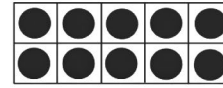
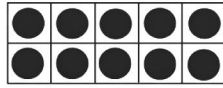
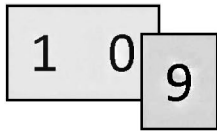


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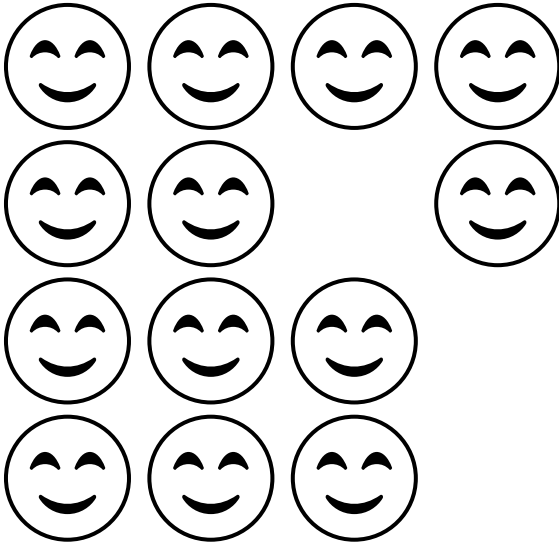
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Look at the place value cards or the 5-group cards. Use your cards to show the number. Write the number as a number bond.





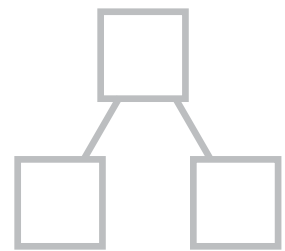
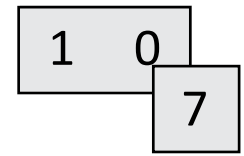
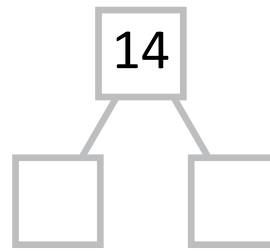
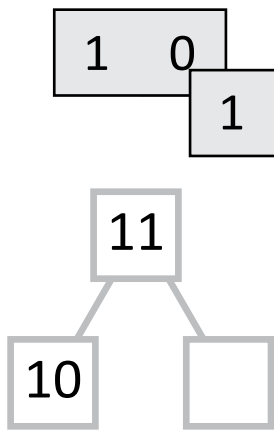
Circle 10 smiley faces. Draw a number bond to match the total number of faces.



Name _____

Date _____

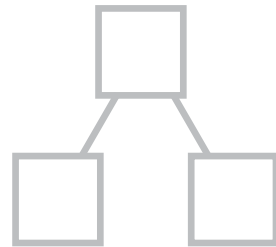
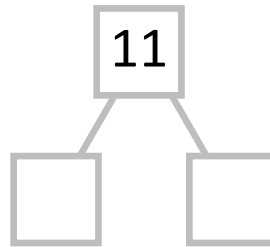
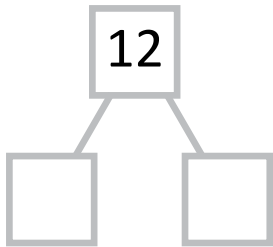
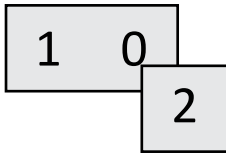
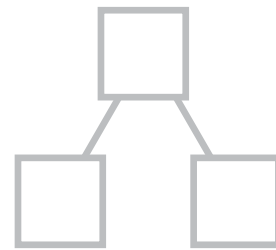
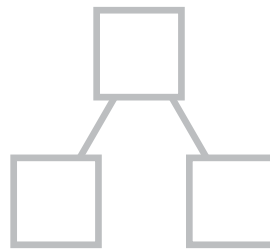
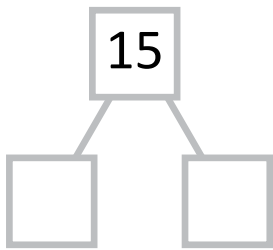
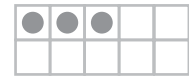
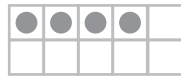
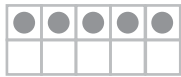
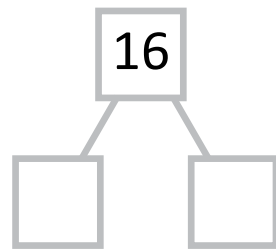
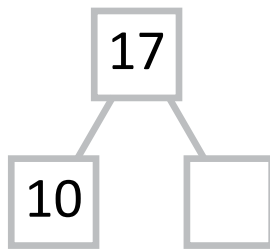
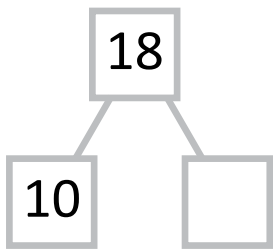
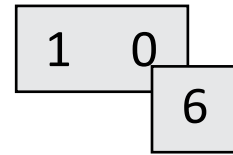
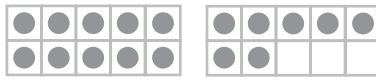
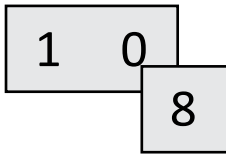
Look at the place value cards or the 5-group cards. Use your cards to show the number. Write the number as a number bond.

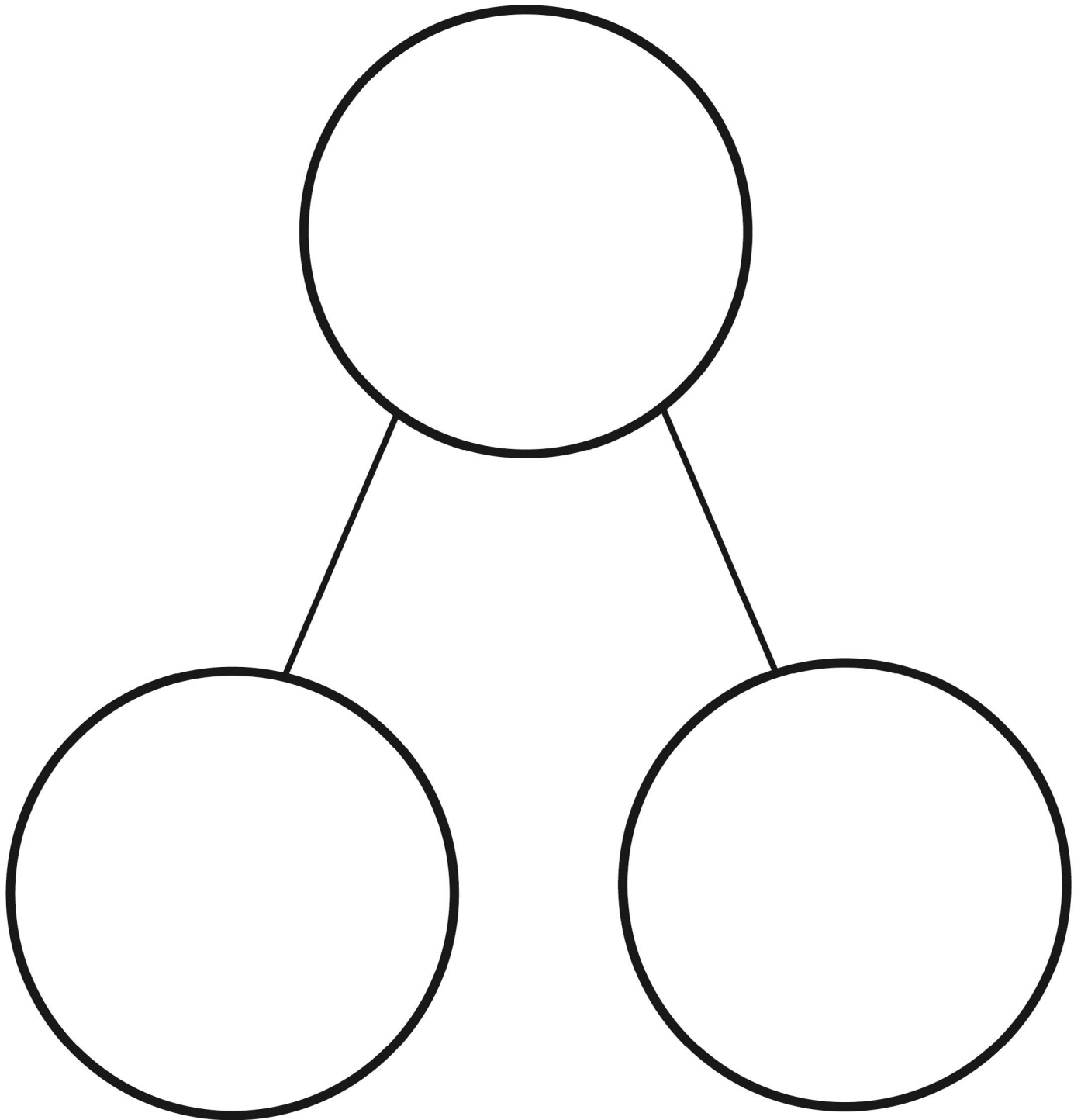


Name _____

Date _____

Look at the place value cards or the 5-group cards. Use your cards to show the number. Write the number as a number bond.





number bond

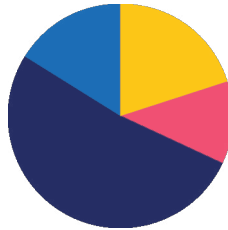


Lesson 8

Objective: Model teen numbers with materials from concrete to abstract.

Suggested Lesson Structure

■ Fluency Practice	(10 minutes)
■ Application Problem	(6 minutes)
■ Concept Development	(26 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (10 minutes)

- Number Bonds of Eight **K.2I** (4 minutes)
- Separating Ten Ones Inside Teen Numbers **K.2C** (3 minutes)
- Teen Number Bonds **K.2I** (3 minutes)

Number Bonds of Eight (4 minutes)

Materials: (T) Dot cards of 8 (Lesson 6 Fluency Template) (S) Personal white board

Note: This fluency activity gives students an opportunity to develop increased familiarity with compositions of eight and to review number bonds.

T: (Show a dot card, and indicate 7 and 1 as parts.) Say the larger part. (Give students time to count.)

S: 7.

T: Say the smaller part.

S: 1.

T: What is the total number of dots? (Give time to count.)

S: 8.

T: Write your number bond.

Continue with 5 and 3, 4 and 4, 6 and 2, 8 and 0.

Separating Ten Ones Inside Teen Numbers (3 minutes)

Materials: (S) Bag with about 20 small objects

Note: This activity gives continued practice in locating 10 ones embedded in the teen numbers and allows students to experience conservation.



T: Empty your bag. Put all the items on your work mat. Count out 10 ones, and move them together into a bunch.

T: (Wait while students complete the task.) How many things are in your bunch?

S: 10.

T: Are there some outside your bunch?

S: Yes.

T: Push all your things back together. Spread them all out over your work mat.

Repeat this process two or three more times.

Teen Number Bonds (3 minutes)

Materials: (T) Number bond cards (Fluency Template)

Note: This activity advances the work with teen numbers by allowing students to see that the parts of a number bond can be switched around, and the total remains the same.

T: (Show a number bond with 10 and 5 as parts.) Say the number sentence starting with 10.

S: 10 and 5 makes 15.

T: Flip it.

S: 5 and 10 makes 15.

Continue with 10 and 1, 10 and 9, 10 and 4, 10 and 8, 10 and 2, 10 and 6, 10 and 3, 10 and 7.

Application Problem (6 minutes)

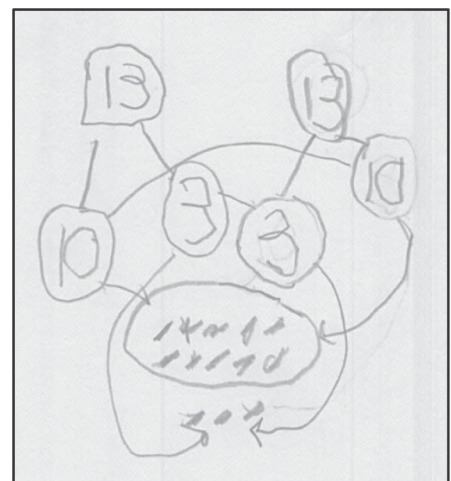
Peter drew a number bond of 13 as 10 and 3. Bill drew a number bond, too, but he switched around the 10 and 3. Show both Bill's and Peter's number bonds. Draw a picture of thirteen things as 10 ones and 3 ones. Explain your thinking to your partner about what you notice about the two number bonds.

Note: The students have noticed that the parts of a number bond can be switched around in Module 4. Make it exciting for them to find out that the same rules, or math truths, apply to larger numbers, too!



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

To support students, including some emergent bilingual students, in explaining what they see, let them work with a student who speaks their own language. This is the key in illustrating the commutative property in a very student-friendly setting.



Concept Development (26 minutes)

Materials: (S) personal white board; bag of place value cards: 1 place value 10 cards (Lesson 6 Template 2) and 5-group cards 1–9 (Lesson 1 Fluency Template 2), bag of 10 linking cubes in one color and 10 linking cubes in another color (per pair)

Part 1: Modeling Teen Numbers 11–20 with Linking Cubes and Place Value Cards.

- T: (Write 11 on the board.) What number is this?
 S: Eleven!
 T: How would you say it the Say Ten way?
 S: Ten 1.
 T: Please write the number 11 on your personal white board. When I ask you to show me your board, show me.
 S: (Write 11.)
 T: Show me!
 S: (Hold up their personal white boards.)
 T: Partner A, open the bag with the place value cards, and put them on your work mat. With your partner, put them in order from 10 to 1. (Wait.)
 T: Partner B, open the bag with the linking cubes, and put them on your work mat.
 T: Now, I want you to work with your partner to show the number. Partner A, show the number with the place value cards, and remember to hide the zero!
 T: Partner B, show the number with the linking cubes. Use one color to show 10 ones and the other color to show the other ones.
 T: Check each other’s work. Explain why you’re both showing 11.

Repeat the process with the numbers 12–19.

Part 2: Modeling Teen Numbers 11–20 with Place Value Cards.

- T: Move the place value cards and linking cubes to the side of your desk.
 T: (Write 15 on the board.) What is the number?
 S: Fifteen!
 T: The Say Ten way?
 S: Ten 5.
 T: Write 15 on your personal white board, and then show me.
 T: Return to the place value cards and linking cubes. This time, Partner A is going to show 15 with the dot side of the place value cards, and Partner B is going to show 15 with the numeral side. After you check each other’s work, you’ll switch.

Repeat the process above with numbers 11–19.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some emergent bilingual students may need more support distinguishing between words such as *thirteen* and *thirty* and *fourteen* and *forty*. Instruct them to practice saying “thirteen” and “thirty” as you point to both the numeral and the word written under each numeral.



Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time. Have students use the bag of 20 small objects from today's fluency activity as they complete the Problem Set.

Student Debrief (8 minutes)

Lesson Objective: Model teen numbers with materials from concrete to abstract.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

Have a set of 5-group cards, place value cards, and 20 linking cubes in two different colors ready to display.

- What is the same/different about the 5-group cards and the place value cards?
- How can you prove 20 is the same as 2 ten?
- When you write the number 18 on your personal white board, how is it the same and different from the number 18 when you show it with place value cards or 5-group cards?
- Which is your favorite way to show a number—with linking cubes, the place value cards, the 5-group cards, or just writing the number? Why?
- Count up to 20 in standard form, and count back to 0 the Say Ten way.
- Who can prove that the 1 in 14 is 10 ones, not 1 one?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name Ben Date _____

Use your materials to show each number as 10 ones and some more ones.
Use your 5-Groups way of drawing. Show each number with your place value cards. Whisper count as you work.

11: One ten card and one one card. Drawing shows one group of 10 dots and one dot.

18: One ten card and eight one cards. Drawing shows one group of 10 dots and eight individual dots.

15: One ten card and five one cards. Drawing shows one group of 10 dots and five individual dots.

14: One ten card and four one cards. Drawing shows one group of 10 dots and four individual dots.

12: One ten card and two one cards. Drawing shows one group of 10 dots and two individual dots.

17: One ten card and seven one cards. Drawing shows one group of 10 dots and seven individual dots.

20: Two ten cards. Drawing shows two groups of 10 dots.

13: One ten card and three one cards. Drawing shows one group of 10 dots and three individual dots.



Name _____

Date _____

Use your materials to show each number as 10 ones and some more ones. Use your 5-groups way of drawing. Show each number with your place value cards. Whisper count as you work.

11

18

15

14



12

17

20

13



Name _____ Date _____

Use your materials to show the number as 10 ones and some more ones.
Use your 5-groups way of drawing.

1 6

Use your cubes to show the number. Then, color in the cubes to match the number.

1 2

Name _____

Date _____

Use your materials to show each number as 10 ones and some more ones.
Use your 5-groups way of drawing.

1 5

1 3

Ten seven

Ten one



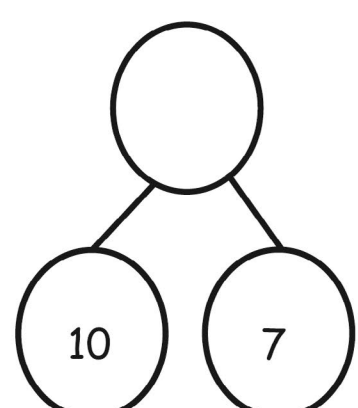
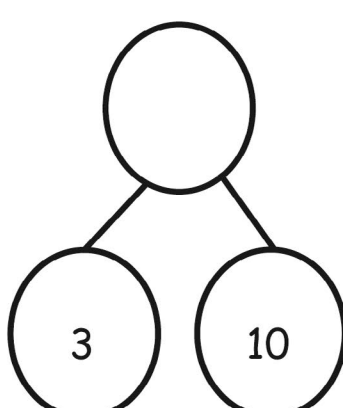
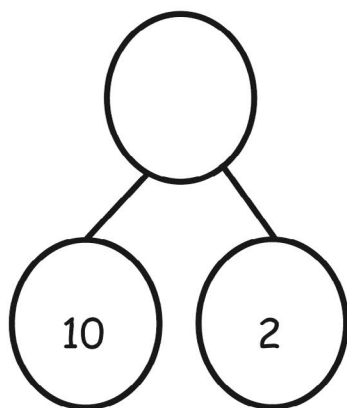
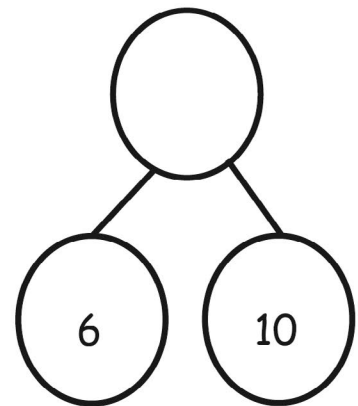
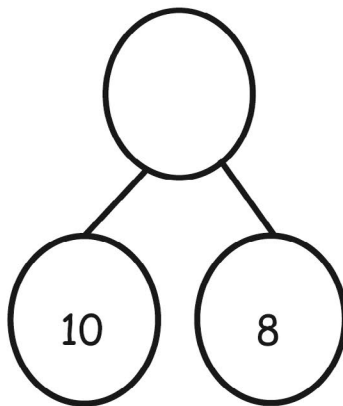
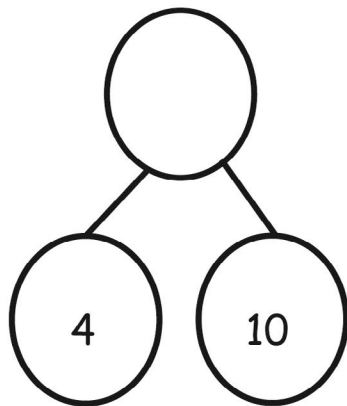
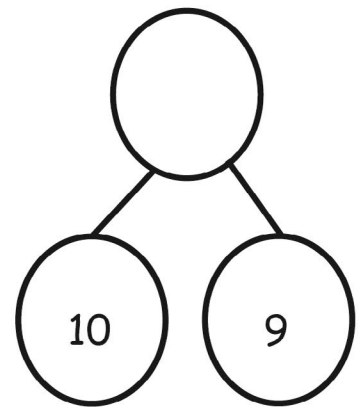
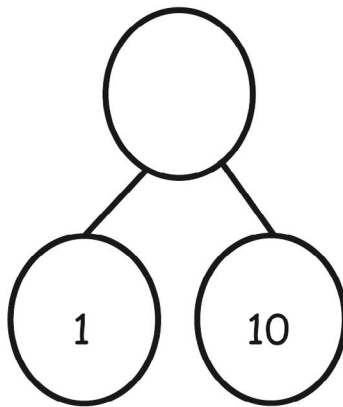
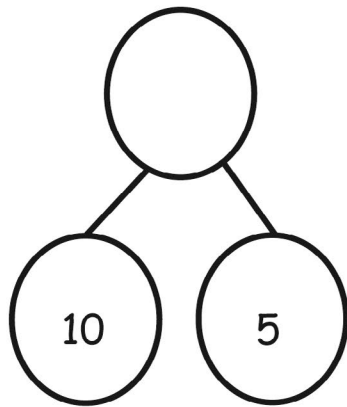
1 2

1 6

2 ten

Ten four





number bond cards

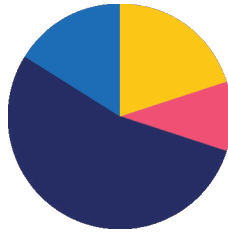


Lesson 9

Objective: Draw teen numbers from abstract to pictorial.

Suggested Lesson Structure

■ Fluency Practice	(10 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(27 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (10 minutes)

- Dot Cards of Nine **K.2D, K.2I** (4 minutes)
- How Many Is One More? **K.2D, K.2F** (2 minutes)
- Grouping Teen Numbers into 10 Ones **K.2E, K.2I** (4 minutes)

Dot Cards of Nine (4 minutes)

Materials: (T/S) Dot cards of 9 (Fluency Template)

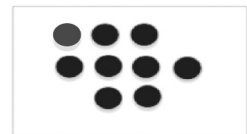
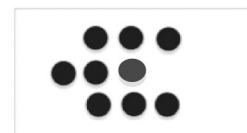
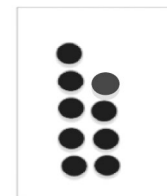
Note: This fluency activity gives students an opportunity to develop increased familiarity with decompositions of nine and practice seeing part-whole relationships.

T: (Show a card with 9 dots.) How many dots do you count? Wait for the signal to tell me. Get ready (snap).

S: 9.

T: How can you see them in two parts?

S: (Students come up to the card.) I saw 5 here and 4 here. → I saw 3 here and 6 here. → I saw 2 here and 7 here.



Repeat with other cards. Pass out the cards for students to work with a partner.

How Many Is One More? (2 minutes)

Materials: (T) Large 5-group cards (Lesson 1 Fluency Template 1)

Note: This fluency activity advances the familiar work with the pattern of *1 more* as it requires students to visualize an additional dot on the 5-groups.

T: (Show 3.) How many dots do you see?

S: 3.

T: What's one more than 3?

S: 4.

T: Let's continue without the 5-group cards. I'll say a number and you say the number that is 1 more. 3.

S: 4.

Repeat with all the numbers through 10 in random order.

Grouping Teen Numbers into 10 Ones (4 minutes)

Materials: (S) Bag with about 20 small objects and work mat

Note: The bags should have a variety of objects between 11 and 20.

Note: Practice separating and counting objects as ten ones and some ones solidifies students' understanding of teen numbers.

T: Empty your bag. Put all the items on your work mat. Count out 10 ones, and move them together into a bunch.

T: (Wait while they work.) How many ones are in your bunch?

S: 10 ones.

T: How many are not in your bunch?

S: 3 ones.

T: Say the number sentence.

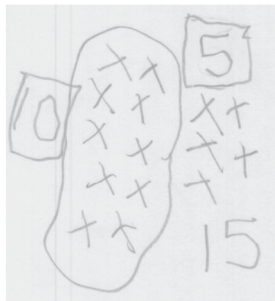
S: 10 ones and 3 ones equals 13 ones.

T: Push all your things back together. Spread them all out over your work mat.

Repeat process 2 or 3 more times. Ask students if the same 10 things are in the bunch each time.

Application Problem (5 minutes)

Jenny drew 15 things with 1 chip and 5 more chips. Draw 15 things as 10 ones and 5 ones, and explain to your partner why you think Jenny made her mistake.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Students needing more proficiency practice may need to model Jenny's mistake and count the quantity so that they can compare it to the fifteen chips. Provide students with counters so that they can show the correct solution to the problem and explain her mistake.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Challenge students who have demonstrated proficiency by extending the Application Problem and asking, "If Jenny made the same mistake representing 18, how might she show it?" and "How many more chips does Jenny need to correct her mistake?"



Concept Development (27 minutes)

Materials: (S) Double 10-frame (Template) within a personal white board

- T: I'm going to write a number on the board. I want you to show that number by putting circles or dots inside the 10-frames.
- T: (Write 10 on the board.) Say the number.
- S: Ten!
- T: Draw circles or dots to show ten. When I say show me, hold up your white board.
- T: Show me. How many ones did you draw?
- S: Ten ones.
- T: Very good. Erase your boards. (Write 14.) Say the number.
- S: Fourteen!
- T: Whisper the number the Say Ten way as you fill in your 10-frames to show it.
- S: Ten 4 (whispering while filling in 10-frames).
- T: Talk with a partner to explain your drawing and how you grouped the dots.
- T: (Write 18.) Say the number the Say Ten way.
- S: Ten 8.
- T: Whisper the number the regular way as you fill in your 10-frames.
- S: Eighteen (whispering while filling in 10-frames).
- T: Talk with your partner. Explain why your picture shows ten 8.

Continue this way with 15 and 19.

- T: Now, let's try something different. Turn your board over to the blank side. I'm going to show a number. I want you to make a drawing that shows that many circles. Then, I want you to circle 10 ones so we can see the parts that make up the number.
- T: (Show 16. Wait.)
- T: Show me.
- T: How many ones did you draw?
- S: Sixteen ones.
- T: How did you group the sixteen ones?
- S: Ten ones and 6 ones.
- T: Yes! Let's do another.

Continue this way through the other teen numbers.



**NOTES ON
MULTIPLE MEANS
OF REPRESENTATION:**

Some students, including some emergent bilingual students, may need support with comparing the 10-frame drawing and circle drawings. Support them by referring to the images. For the teen numbers, be sure to post the numerals along with the written word. Having numbers that sound alike, like thirteen *and* thirty clearly differentiated on the word wall will help them keep them apart.



Problem Set

Students should do their personal best to complete the Problem Set within the allotted time. Direct students to count as they represent the numbers. Have them whisper count as they work and fill one complete 10-frame before moving on to the next. Have them show their numbers with place value cards.

Student Debrief (8 minutes)

Lesson Objective: Draw teen numbers from abstract to pictorial.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How are your 10-frame drawings and your circle drawings the same and different?
- Look at your 10-frame drawings with your partner. Did you draw the number 17 the same way? If not, explain why both drawings show 17. Do the same for the number 16.
- Compare your 10-frame drawings with your circle drawings. Is one drawing faster for you to read and understand than the other? Explain your thinking.
- (Do a finger flash in mixed order from 10 to 20, and have students say the numbers the Say Ten way.)

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name Dan Date _____

Whisper count as you draw the number. Fill one ten-frame first. Show your numbers with your place value cards.

12	17

16	13

Draw and circle 10 ones and some more ones to show each number.

20	11

Choose a teen number to draw. Circle 10 ones and some ones to show each number.

14	12



Name _____

Date _____

Whisper count as you draw the number. Fill one 10-frame first. Show your numbers with your place value cards.

12

17

16

13

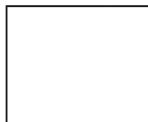


Draw and circle 10 ones and some more ones to show each number.

20

11

Choose a teen number to draw. Circle 10 ones and some ones to show each number.



Name _____

Date _____

Show the number by filling in the 10-frames with circles.

15			

19									

Draw circles to show the number. Circle 10 ones.

18

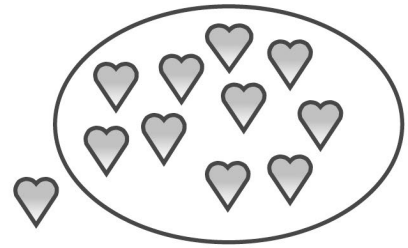
14

Name _____

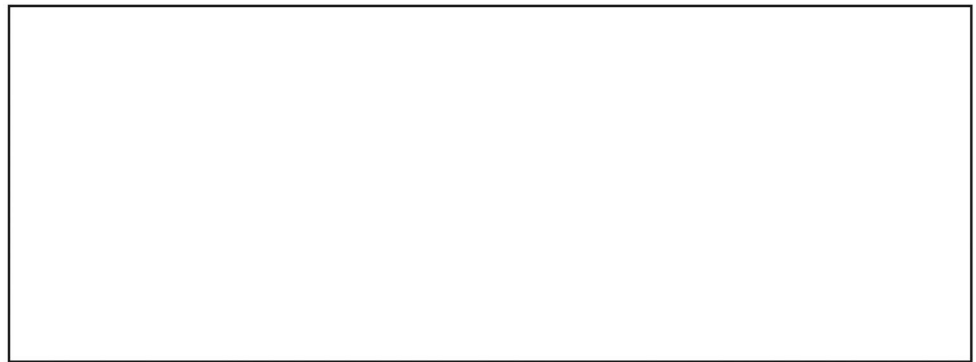
Date _____

For each number, make a drawing that shows that many objects.
Circle 10 ones.

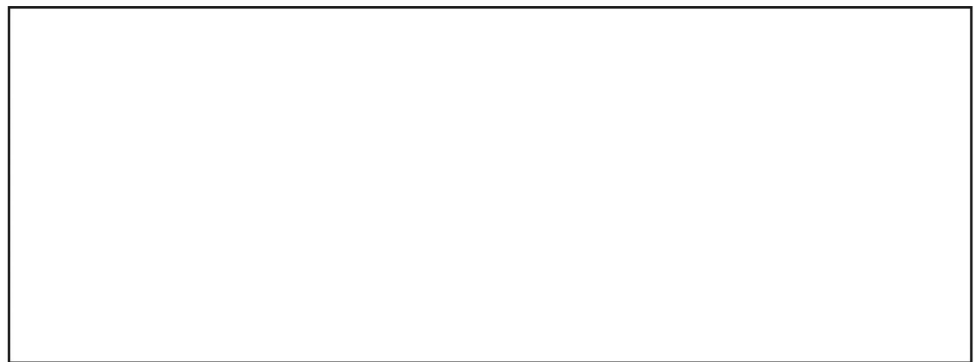
11



16



20



19

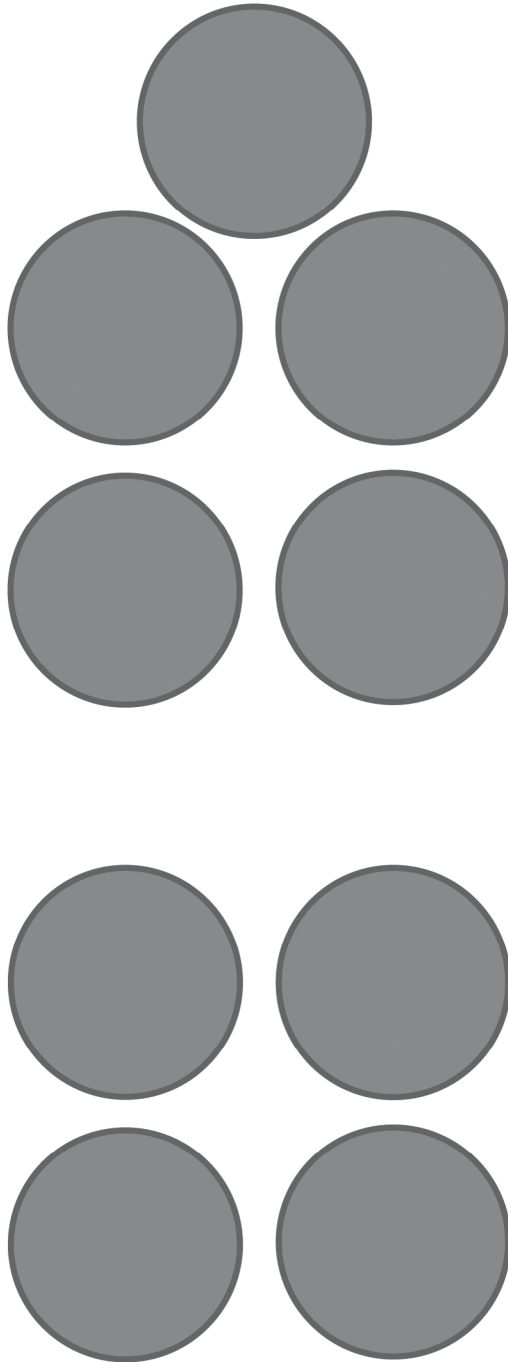


14



12

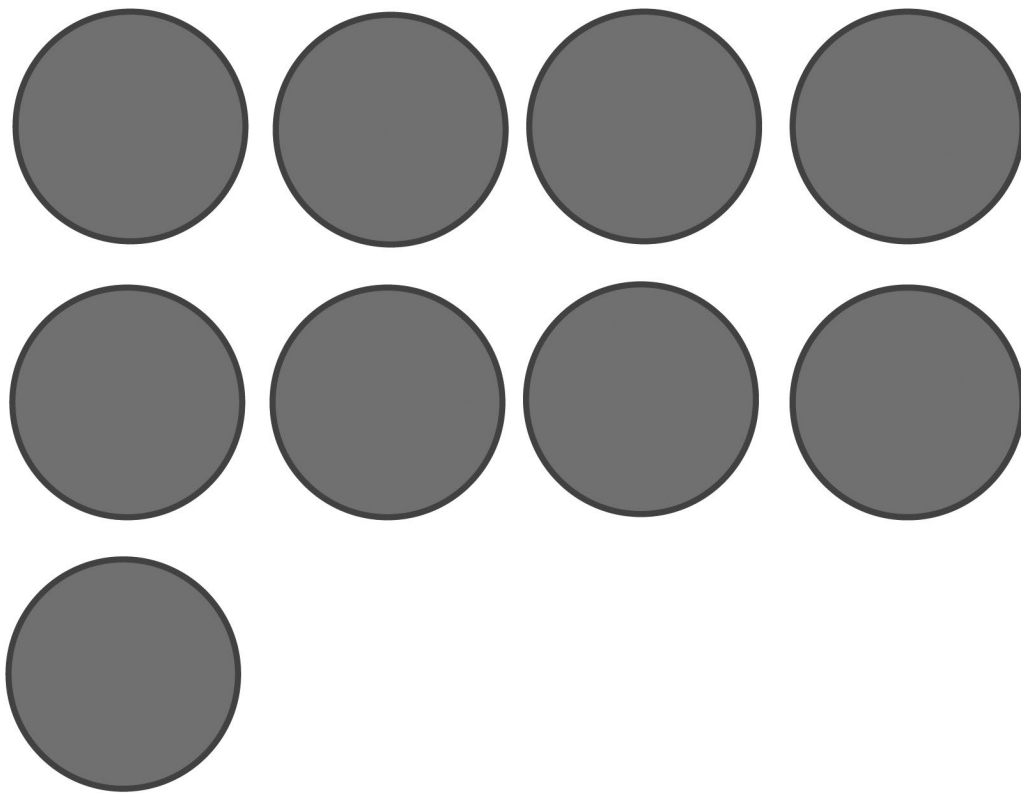




dot cards of 9

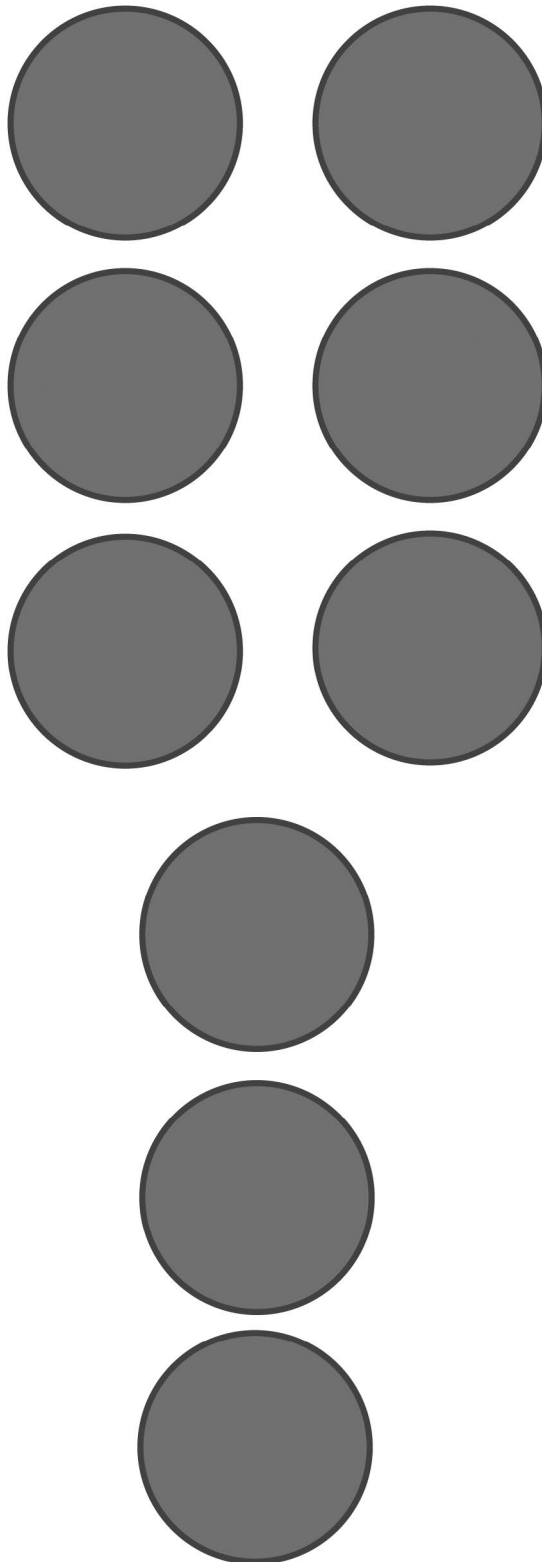


Lesson 9: Draw teen numbers from abstract to pictorial.



dot cards of 9

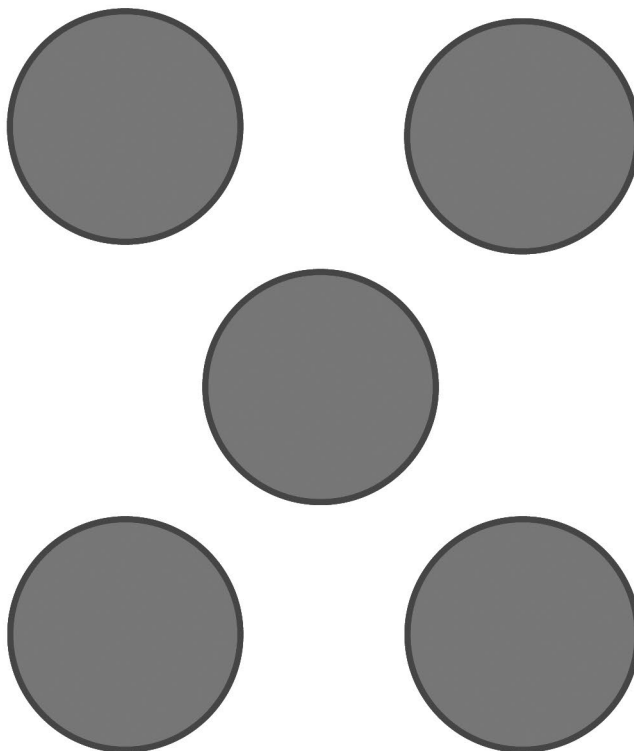
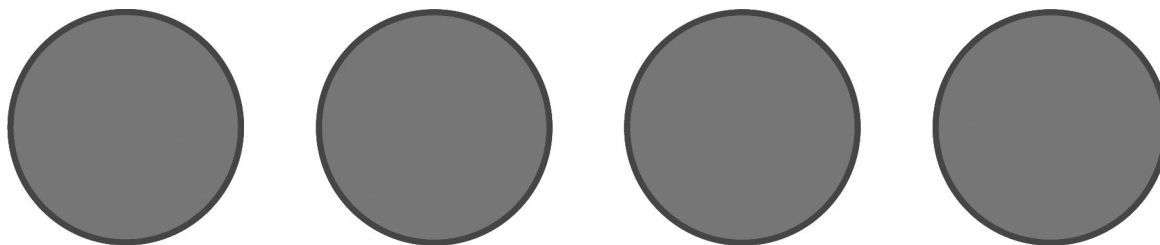




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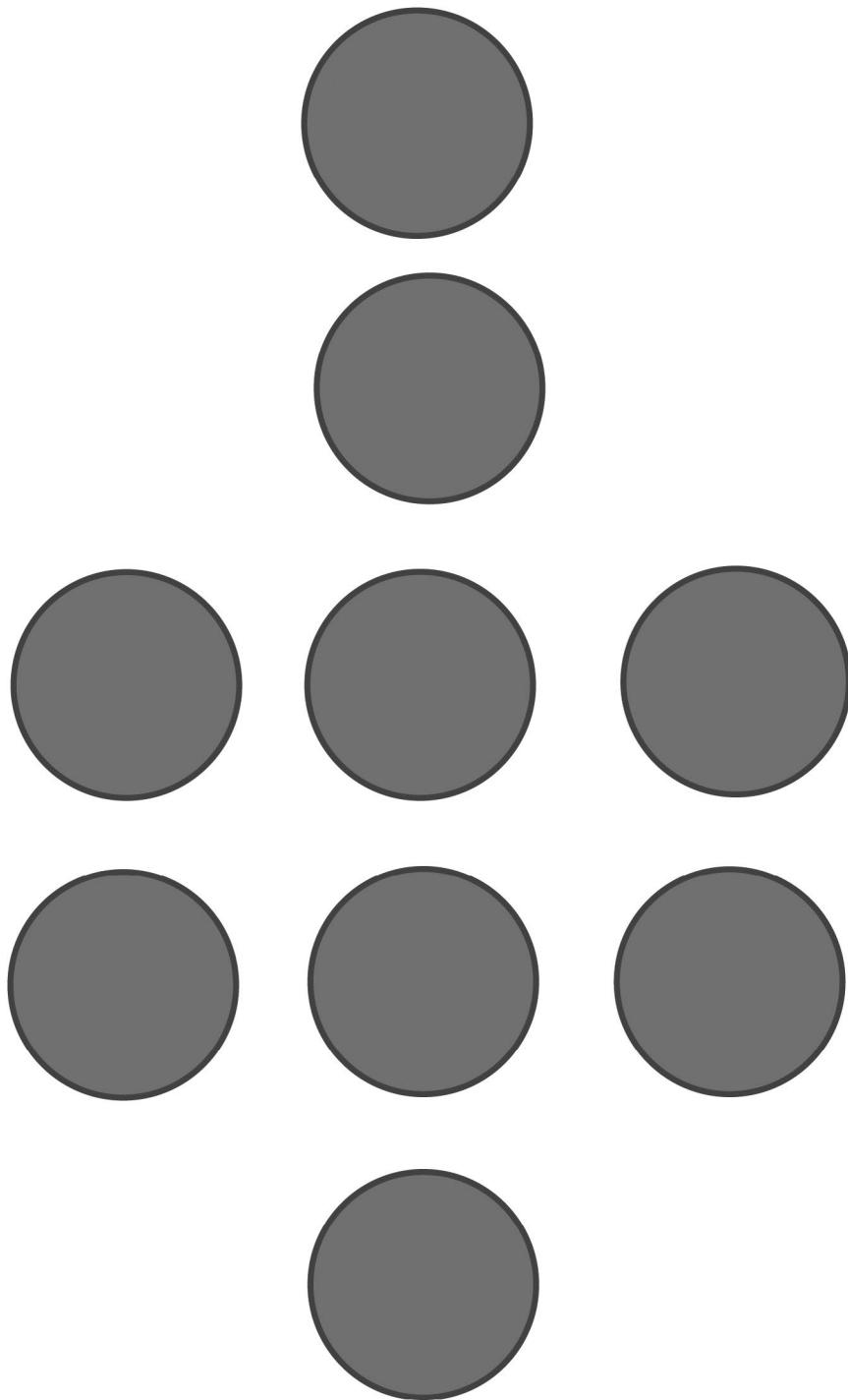


Lesson 9: Draw teen numbers from abstract to pictorial.



dot cards of 9

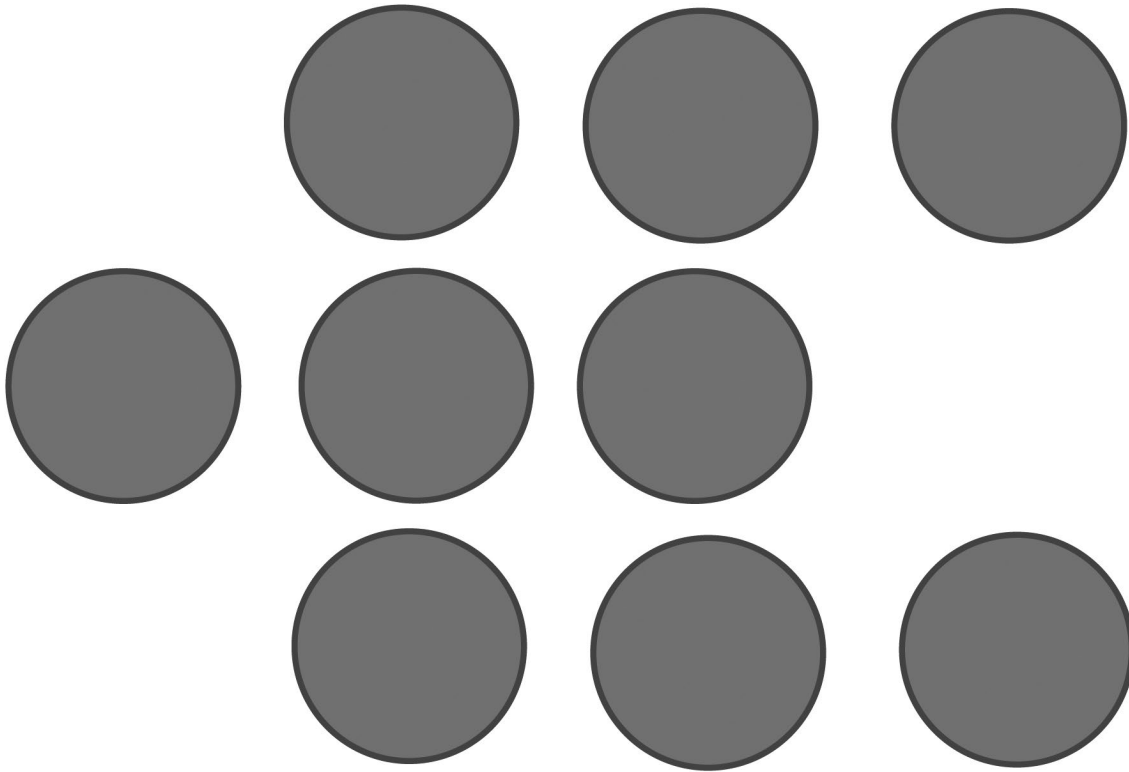




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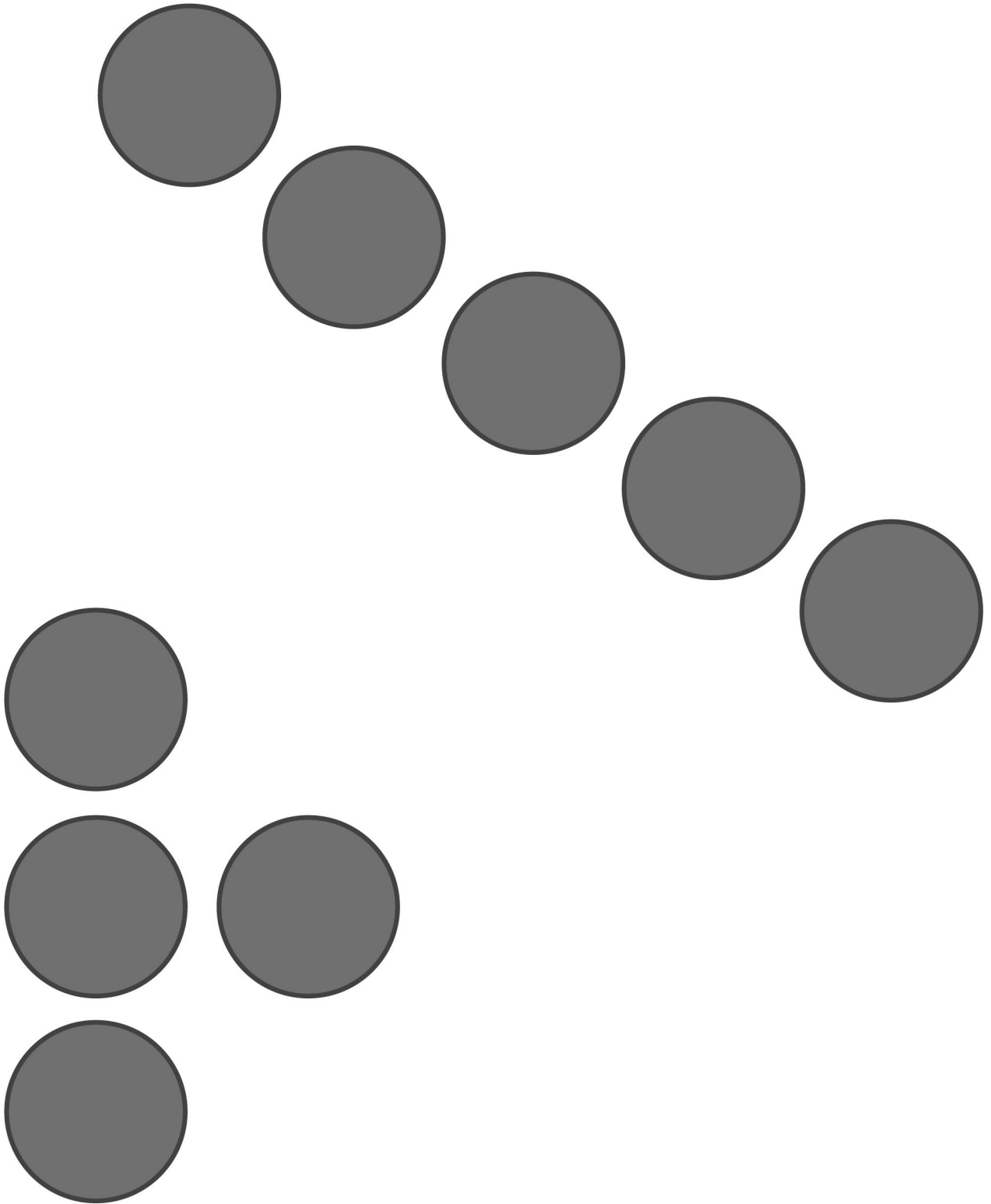


Lesson 9: Draw teen numbers from abstract to pictorial.



dot cards of 9

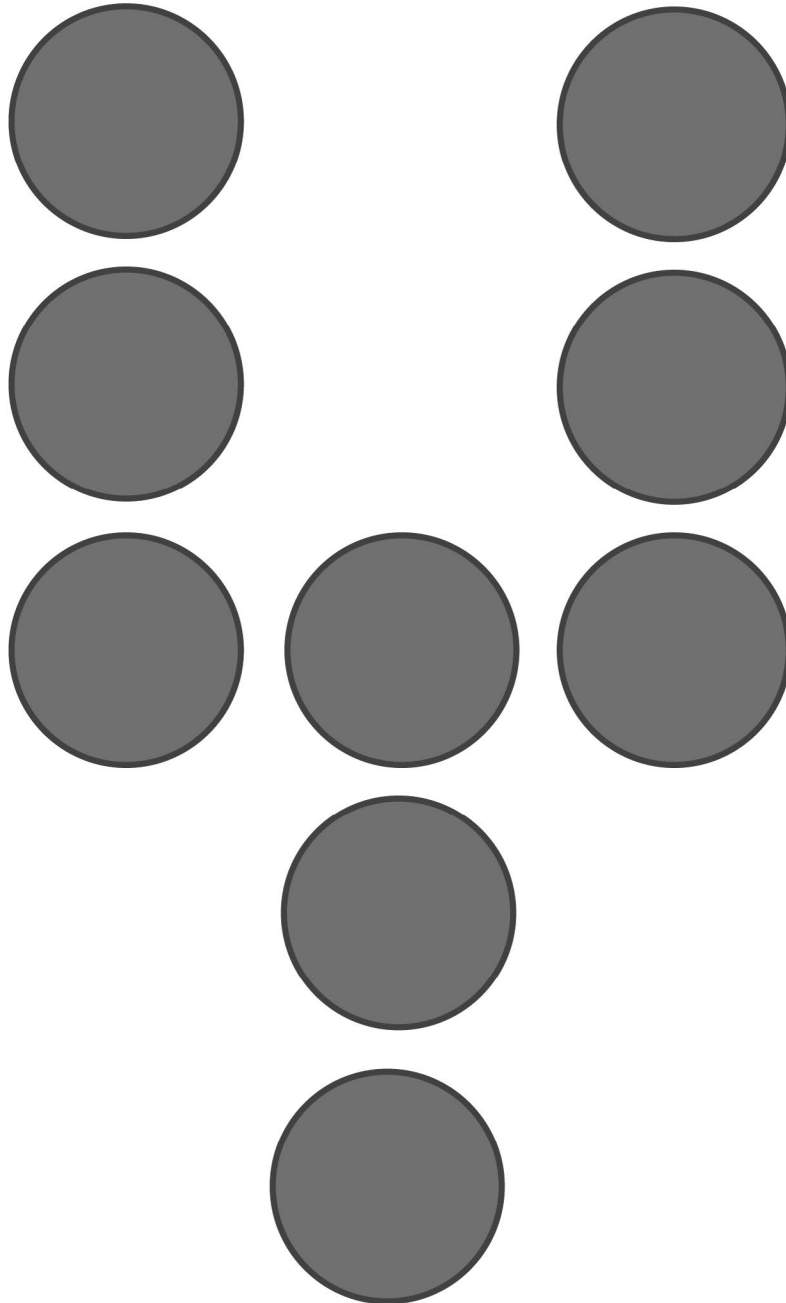




dot cards of 9

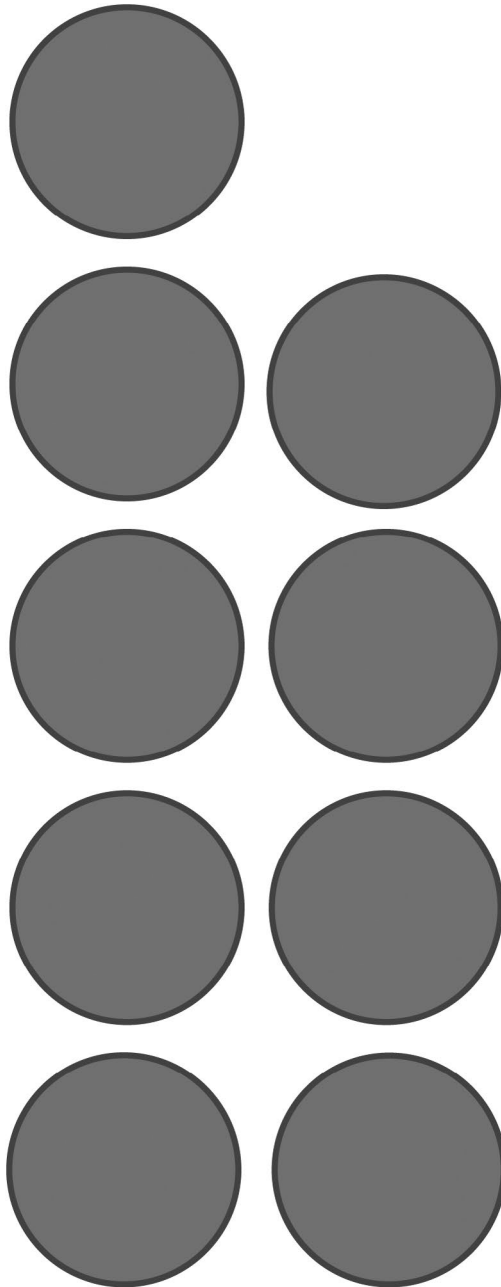


Lesson 9: Draw teen numbers from abstract to pictorial.



dot cards of 9





dot cards of 9



Lesson 9: Draw teen numbers from abstract to pictorial.

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double 10-frame





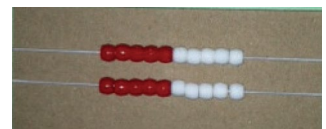
Topic C

Decompose Numbers 11–20, and Count to Answer “How Many?” Questions in Varied Configurations

K.2A, K.2C, K.2D, K.2E, K.2F, K.2G, K.2B

Focus Standards:	K.2A	Count forward and backward to at least 20 with and without objects.
	K.2C	Count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set regardless of their arrangement or order.
	K.2D	Recognize instantly the quantity of a small group of objects in organized and random arrangements.
	K.2E	Generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20.
	K.2F	Generate a number that is one more than or one less than another number up to at least 20.
	K.2G	Compare sets of objects up to at least 20 in each set using comparative language.
Instructional Days:	5	
Coherence -Links from:	GK–M4	Number Pairs, Addition and Subtraction to 10
	-Links to: G1–M2	Introduction to Place Value Through Addition and Subtraction Within 20

Topic C opens in Lesson 10 with students building a Rekenrek to 20, which they use to count and model numbers for the balance of the year. They deepen their understanding of the composition and decomposition of teen numbers as 10 ones and some more ones by showing, counting, and writing (**K.2B**) the numbers 11 to 20 using a variety of configurations: vertical towers, linear, array, and circular configurations. In each configuration, students count to answer “how many?” questions (**K.2C**) and realize that whatever the configuration, a teen number can be decomposed into 10 ones and some ones.



In Lessons 11 and 12, students are asked to count items in a set and record the total amount as a numeral. Sets are both concrete and pictorial in varying configurations, including towers or linear configurations, arrays, and circles. In Lesson 11, students are asked to record one more than the amount in the set. In Lesson 12, students are then asked to record one less than the amount in the set (**K.2F**). Next, in Lesson 13, students move teen quantities back and forth between linear and array configurations, practice counting strategies, and recognize that when they answer “how many?” the total has not changed. In Lesson 14, students tackle the most challenging configuration, the circle. Students circle 10 and see that, yes, the circle is composed of 10 ones and some ones, too. They become proficient at counting in all configurations to answer *how many* questions (**K.2C**). Finally, the topic culminates with Lessons 15 and 16 as students use comparative language to compare and generate sets of objects up to 20 (**K.2G**, **K.2E**).

A Teaching Sequence Toward Proficiency in Decomposing Numbers 11–20, and Counting to Answer “How Many?” Questions in Varied Configurations

- Objective 1:** Count forward and backward by ones on the Rekenrek.
(Lesson 10)
- Objective 2:** Generate a number that is one more than another number up to 20.
(Lesson 11)
- Objective 3:** Generate a number that is one less than another number up to 20.
(Lesson 12)
- Objective 4:** Show, count, and write to answer *how many* questions in linear and array configurations.
(Lesson 13)
- Objective 5:** Show, count, and write to answer *how many* questions with up to 20 objects in circular configurations.
(Lesson 14)
- Objective 6:** Use comparative language to compare sets of up to 20 objects.
(Lesson 15)
- Objective 7:** Generate sets that are *more than*, *less than*, or *equal to* a given number.
(Lesson 16)

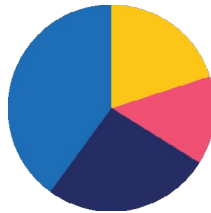


Lesson 10

Objective: Count forward and backward by ones on the Rekenrek.

Suggested Lesson Structure

■ Fluency Practice	(10 minutes)
■ Application Problem	(7 minutes)
■ Concept Development	(23 minutes)
■ Student Debrief	(10 minutes)
Total Time	(50 minutes)



Fluency Practice (10 minutes)

- Writing Teen Numbers **K.2B** (4 minutes)
- Showing Numbers with Hands **K.2B** (3 minutes)
- Counting **K.5A** (3 minutes)

Writing Teen Numbers (4 minutes)

Materials: (T) Linking cubes (S) Personal white board

Note: By writing the corresponding numeral for each part, and then the whole, students are continually reminded that the *1* in teen numbers refers to 10 ones.

- T: (Show 3 cubes.) Write the number.
 S: (Students write the numeral 3.)
 T: (Show 10 cubes.) Write the number.
 S: (Students write the numeral 10.)
 T: (Show 13 cubes.) Write the number.
 S: (Students write 13.)

Repeat the process for the following possible sequence: 10, 13, 19, 5, 17, 8, 18, 15, 12, 14, 16.

Showing Numbers with Hands (3 minutes)

Materials: (T) 20-bead Rekenrek

Note: Relating the group of 10 on the Rekenrek to students' own hands helps them internalize the structure of teen numbers.



T: (Show 12 on the Rekenrek.)

T: Show the two parts of the number on your fingers. Say the parts at the same time.

S: 10 (flashing ten fingers) and 2 (showing two fingers).

Continue with the following possible sequence: 13, 14, 19, 16, 18, 15, 11, 17, 20.

Counting (3 minutes)

Materials: (T) 20-bead Rekenrek

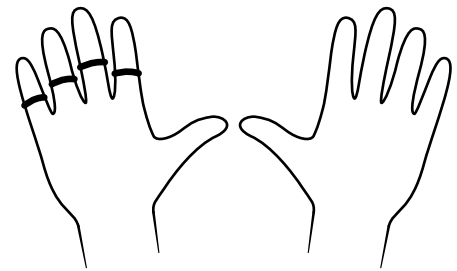
Note: Students relate Say Ten counting to conventional teen number names in this activity. Counting both ways, and in both directions, ensures that students remain alert to the sequence and do not simply extend a pattern of number words. If students struggle, return to a more manageable range (such as within 13 or 15), and later build up to work within 20.

Count by ones from 11–20, changing directions both the Say Ten way and the regular way.

Application Problem (7 minutes)

Ms. Garcia puts some rings on her fingers. She put rings on all her fingers on her left hand except her thumb. How many more rings does she need if she wants to put rings on all her fingers? How many rings does she need after she puts a ring on her left thumb? Draw a picture to help you.

Note: This problem is an application wherein students learn the number that makes 10 from any number less than 10. As a word problem, this is a *change unknown*, which is a Grade 1 problem type. Therefore, the number sentence is not asked for since missing addends are introduced in the fall of Grade 1.



Concept Development (13 minutes)

Materials: (S) Problem Set, bag of 10 red and 10 white pony beads, two 12-inch lengths of elastic, one 2.75-inch by 5.5-inch piece of chipboard (or cardboard strip) with an indentation (each 8.5-inch by 11-inch chipboard makes 4 Rekenreks)

Part 1

Distribute the Problem Set and the bag of 10 red and 10 white pony beads to each student.

T: On another day, Ms. Garcia puts 5 red rings and 5 white rings on her fingers. Use your red beads to show Ms. Garcia's red rings. Place them on the circles below Ms. Garcia's hands on your Problem Set.

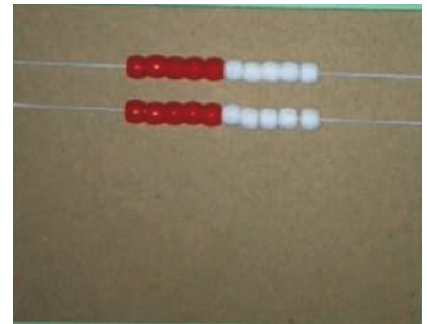


NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Scaffold the lesson for students who need more support, including some emergent bilingual students, by pointing to the hand with rings and asking, "How many have rings?" Then, point to the hand without rings and ask, "How many does she need to put on?"



- S: (Place 5 red beads on the circles below Ms. Garcia’s hands.)
- T: Use white beads to show Ms. Garcia’s white rings. Place them on the circles below Ms. Garcia’s hands on the Problem Set.
- S: (Place 5 white beads on the circles.)
- T: Count to find the total number of red and white beads in the circles.
- S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
- T: Below the circles, write the numbers you counted.
- S: (Write numbers 1–10.)
- T: Ms. Garcia’s friend, Ana, comes to visit. Ana likes Ms. Garcia’s rings and puts the same rings on her fingers to match. Put red and white beads on the circles below Ana’s hands on your Problem Set. Ana’s hands should look the same as Ms. Garcia’s hands.
- S: (Place 5 red beads and 5 white beads on the circles below Ana’s hands.)
- T: How many total beads are on your paper?
- S: 20.
- T: How do you know?
- S: I counted all of them. → I knew there were 10 beads for Ms. Garcia, so I counted on from 10.
- T: You already wrote numbers 1–10 below the top row of circles on your Problem Set. Now, write numbers 11–20 below the bottom row of circles.
- S: (Write 11–20.)
- T: We need to get ready for the next part of our lesson. When I clap my hands, we will put the beads back in our bags. We will do this as a class. As we put our beads in the bags, we will count backward from 20, saying one number for each bead we put back. You can use the numbers you wrote to help you count. (Clap hands.)
- T/S: 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.



Part 2

Distribute elastic and chipboard to each student.

T: Let’s use our beads to make a Rekenrek.

Demonstrate how to thread 5 red beads and 5 white beads on the elastic from left to right, beginning with the red beads. Once students have finished one row, have them thread the other row. Show students how to pinch the elastic at each end of a row to pick it up and place it on their chipboard (or cardboard strip), one row under the other. Circulate and tie the elastics for students, or have helpers tie the elastics after class for use in future lessons.

T: Sit next to your partner. Put one of your Rekenreks to the side and share the other Rekenrek.

S: (Place one Rekenrek aside.)



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

For students who need more proficiency practice with counting backward from 20 to 1 on their Rekenrek, have them count the Say Ten way first before counting the regular way. Counting the Say Ten way will help students recognize the backward pattern and make connections to counting the regular way.



- T: On the Rekenrek you and your partner are sharing, slide all the beads to the right. Now, work together to count your beads. As you count each bead, slide it to the left.
- S: (Slide and count 20 beads.)
- T: How many beads did you count?
- S: 20.
- T: All 20 beads should be on the left of your Rekenrek. Now, work together to count backward from 20. For each number you say, slide 1 bead back to the right of the Rekenrek.
- S: (Slide beads to the right, one at a time, and count down to zero.)
- T: How many beads are on the left of your Rekenrek now?
- S: 0.
- T: You can use the Rekenrek as a tool for counting. You can use it when counting forward and backward.

Gather student rekenreks and save for future lessons.

Problem Set

Today's Problem Set will be completed during the Concept Development. During Parts 1 and 2 of the Concept Development, students will write numerals 1–20 as they count up to 20. Writing the numbers will support students in counting backward.

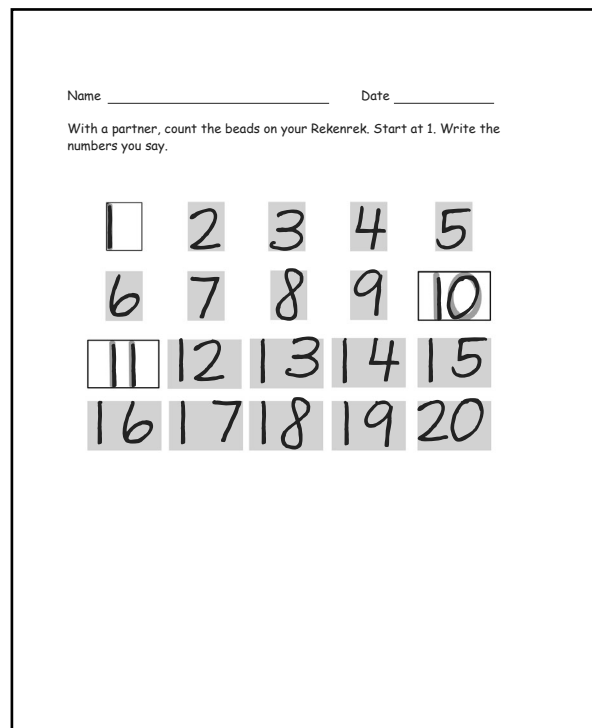
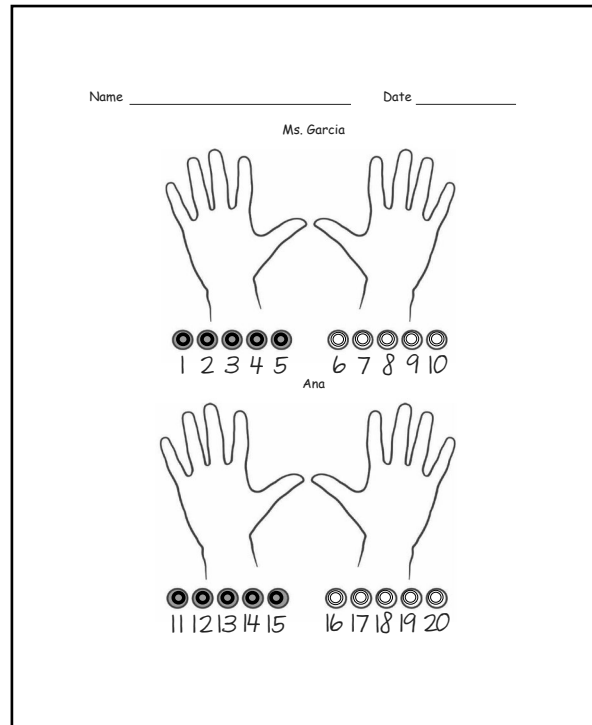
Because the goal of this lesson is on counting forward and backward, writing numerals is not an expectation and may be omitted if needed. Or the teacher may support students in recording numerals on the Problem Set.

Student Debrief 10 minutes)

Lesson Objective: Count forward and backward by ones on the Rekenrek.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. They can review counting forward and backward with a partner, using their Rekenrek as a tool. Look for misconceptions or misunderstandings that can be



addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson. Any combination of the questions below may be used to lead the discussion.

- How does the Rekenrek help you see a number like 6 without counting?
- How do the different colored beads on the Rekenrek help you know how many beads are showing?
- What happens to the number of beads as you count forward?
- What happens to the number of beads as you count backward?
- When might you see numbers count backward to 0 in everyday life? (Some examples include a microwave, a timer, and a clock at a sporting event.)

Exit Ticket (3 minutes)

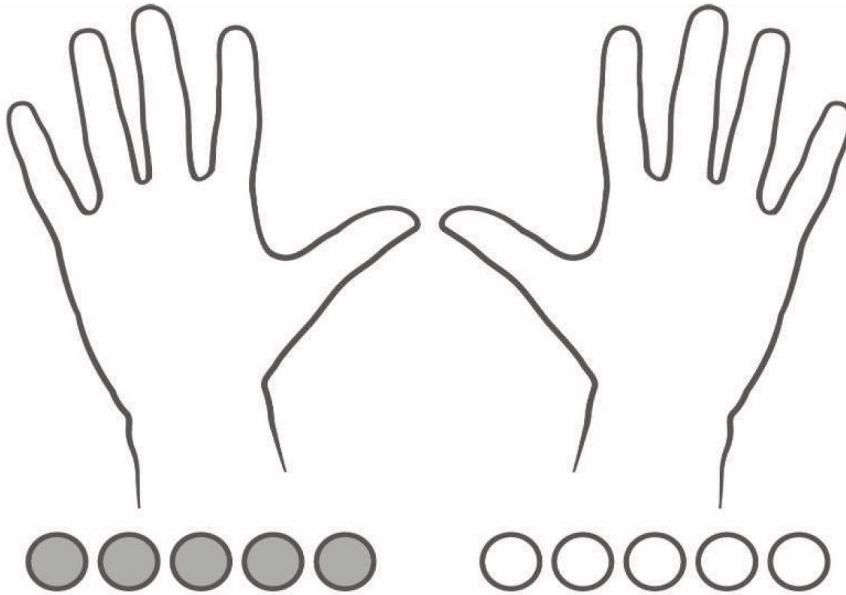
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



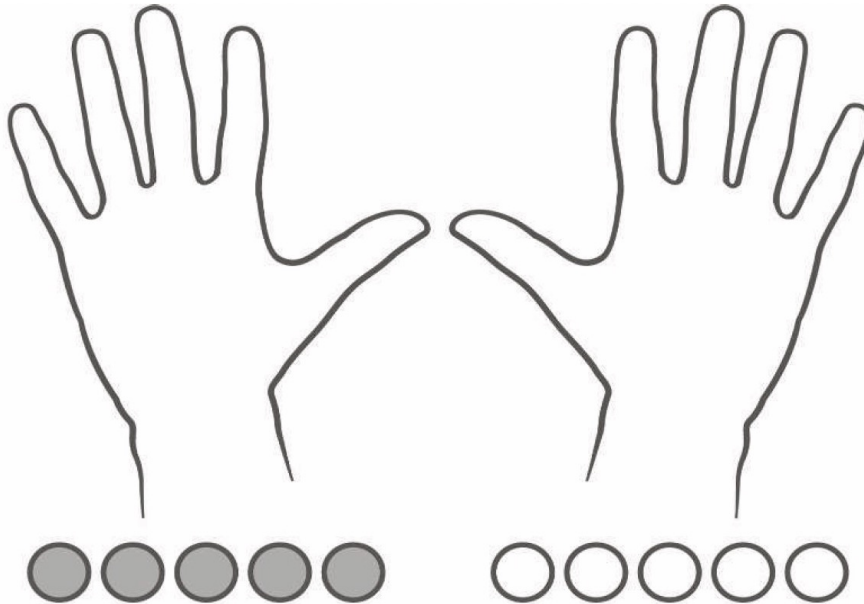
Name _____

Date _____

Ms. Garcia



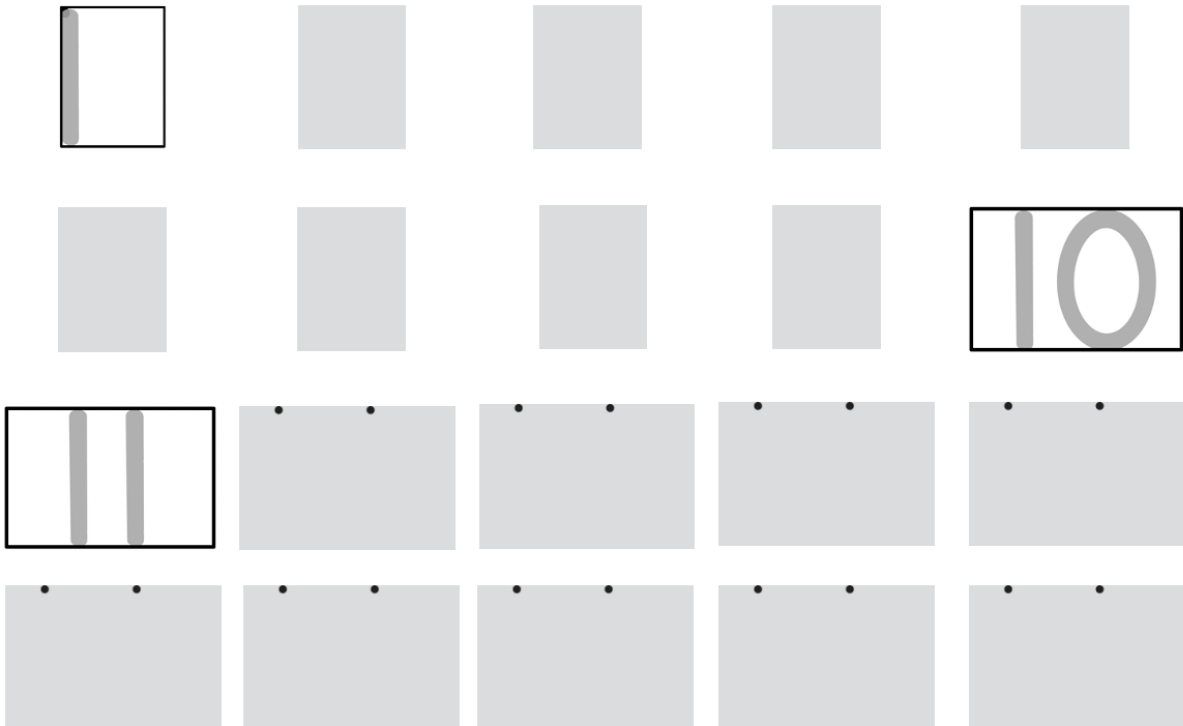
Ana



Name _____

Date _____

With a partner, count the beads on your Rekenrek. Start at 1. Write the numbers you say.



Name _____

Date _____

With a partner, count the beads on your Rekenrek. Start at 1. Write the numbers you say.

The Rekenrek grid consists of 20 squares arranged in four rows of five. The top row contains a square with the number '20' and four empty squares. The second row contains five empty squares. The third row contains a square with the number '10' and four empty squares. The bottom row contains four empty squares and one square with a vertical line on the left side.



Name _____

Date _____

Use the Rekenrek to count forward to 20. Draw to show what the Rekenrek looks like when you get to 20.

Count backward from 20 to 10 on your Rekenrek. Write the numbers you counted in order.

20				
				10



Name _____ Date _____

1. Count the beads. Write the numbers as you count.

_____ beads

2. There are 12 beads. Count back from 12 as you cross off each bead.

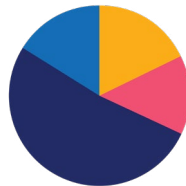


Lesson 11

Objective: Generate a number that is one more than another number up to 20.

Suggested Lesson Structure

■ Fluency Practice	(9 minutes)
■ Application Problem	(7 minutes)
■ Concept Development	(26 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (9 minutes)

- Counting on a Rekenrek **K.2B** (4 minutes)
- Saying Teen Numbers the Say Ten Way **K.5A** (2 minutes)
- One More **K.2F** (3 minutes)

Counting on a Rekenrek (4 minutes)

Materials: (S) Personal Rekenrek (Built in Lesson 10)

Note: Encourage students to show teen numbers in both horizontal (e.g., 13 as 10 on the top row and 3 on the bottom) and vertical (e.g., 13 as 10 red and 3 white) orientations. Students might also show numbers in 2 parts (e.g., 5 as 3 and 2).

T: Take out the Rekenrek that you made yesterday. I'm going to call out a number, and I want you to show it on your Rekenrek. (Wait while students prepare their Rekenreks.)

Possible sequence: 1, 2, 5, 6, 10, 11, 12, 13, 14, 15, 16, 15, 16, 17, 18, 19, 20, 19, 18, 17, 16, 15, 10, 5, 4, 3, 2, 1.

Saying Teen Numbers the Say Ten Way (2 minutes)

Note: Now that students have had ample experience with counting the Say Ten way, the goal is to build speed and accuracy.

T: I'm going to say a number. You say it the Say Ten way. Eleven.

S: Ten 1.

T: Twelve.

S: Ten 2.



Repeat process for possible sequence: 13, 17, 19, 14, 16, 18, 15, 20.

One More (3 minutes)

Materials: (T) 20-bead Rekenrek

Note: Students make use of the pattern of 1 more in numbers 1–9, to determine 1 more with teen numbers. Knowing that 4 ones are part of 14, for example, allows them to determine that 1 more is 15, just as 1 more than 4 is 5.

T: I want you to say one more than the number that you see on the Rekenrek. (Show 3.)

S: 4.

T: (Show 13.)

S: 14.

Continue with the following possible sequence: 5, 15, 1, 11, 4, 14, 7, 17, 8, 18, 9, 19, 6, 16.

T: Let's continue without the Rekenrek. I'll say a number, you say the number that is one more. 1 ten, 3.

S: 1 ten, 4.

T: Say it the regular way.

S: 14.

Continue with other teen numbers in random order. Eliminate the Say Ten Way when appropriate.

T: 15.

S: 16.

Continue with teen numbers in random order.

Application Problem (7 minutes)

Mary has 10 toy trucks. She told her mom she likes to spread them out on the floor. She said she doesn't like to put them away neatly in the little toy box because then there are fewer toys. Draw a picture to prove to Mary that the number of toy trucks is the same when they are all spread out as when they are in the little toy box.

Note: This Application Problem provides an opportunity for students to model conservation. Students draw to prove that the number of objects remains the same, despite the perceptual change.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Focus on academic vocabulary to help students who need more support, including some emergent bilingual students, with the Application Problem. Provide students with a template for their work. Adapt the template so that one side has a graphic or a picture to represent the floor and one side has a graphic to represent the toy box.

Concept Development (26 minutes)

Materials: (T) Sentence frame (Template) (S) 2 sets of 10 linking cubes (10 in one color and 10 in another color)

Note: Notice that we are not saying “20 is 1 more *than* 19.” This is very complex linguistically for many kindergarten students who can say “19 is more than 18” without quantifying the difference. They simply are seeing and analyzing that each successive number is one larger (**K.2F**).

T: Show me a tower of 10 cubes

T: (Students show a tower of 10.) How many cubes are you holding?

S: Ten.

T: Add one more cube. How many do you have now?

S: 11.

T: Show me 14. (Point to the first sentence frame.) If you were to add one more, how many would you have in all?

S: 15.

T: How can you check your answer?

S: We can add one more cube and count. → We can think about the number that comes next when we count.

T: Good! Put one more cube on your tower.

S: (Show 16.)

T: How many cubes do you have now?

S: 16.

T: Repeat with me, “15. 1 more is 16.”

S: 15. 1 more is 16.

Use the sentence frame to help students express the relationship of adding one to a given number. Continue adding one more cube to several numbers within 20.

Move from teacher modeling with objects to encouraging students to solve problems on their own. Students may use connecting cubes or counting strategies to solve.

T: Now, let’s try to solve a couple of problems. As you work, you may use your connecting cubes or just think about the next number in the counting sequence. Miguel has a train 12 cars long. He attaches 1 more car to the train. How many cars does he have now?

S: 13.

T: How did you get 13?

S: I built a train of 12 cubes and added 1 more cube. → I said the number that comes after 12 when I count.

T: Correct. 12. 1 more is 13.



Use the sentence frame to help students express the relationship of adding one to a given number. Provide additional problems for students to solve. (Example: Nina builds a tower 18 blocks tall. Then she adds 1 block to the top of her tower. How many blocks tall is her tower now?)

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time. As students find the numbers that are one more, have them continue to say the relationship of each number to its preceding number. Example: Fifteen. 1 more is 16.

Student Debrief (8 minutes)

Lesson Objective: Generate a number that is one more than another number up to 20.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner.


They can use manipulatives, draw pictures, count on, or count all to solve as needed. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.


Any combination of the questions below may be used to lead the discussion.


- What do you notice as we count from 1 to ___?
- What is 1 more than 15? How did you find the solution?
- If you did not have connecting cubes or a picture in front of you, how would you find one more?
- How would you teach a friend to find “one more” for any number?

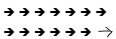
Name Tam Date _____


1. Count and write the number.
Draw 1 more. Then write the new number.

 6, 1 more is 7.


 10, 1 more is 11.


 8, 1 more is 9.


 13, 1 more is 14.

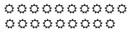
 17, 1 more is 18.


2. Count each set. Then, draw a line to the number that tells “one more.”

 _____ 16


 _____ 19

 _____ 6

 _____ 20

 _____ 9

3. Draw or count to solve.
Dana made a chain of 12 paper clips. Then, she added 1 more paper clip to the chain. How many paper clips are in Dana’s chain now?



Dana has 13 paper clips in her chain now.



Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

**NOTES ON
MULTIPLE MEANS
OF ACTION AND
EXPRESSION:**

For students needing more proficiency practice, have them regularly work with you when they come to the carpet rather than with a partner. This provides them with much-needed extra time with the teacher.

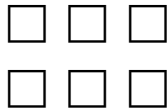


Name _____

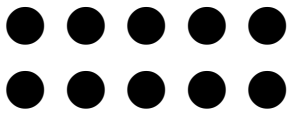
Date _____

1. Count and write the number.

Draw 1 more. Then write the new number.



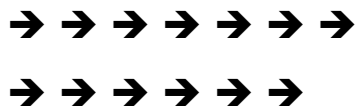
_____. 1 more is _____.



_____. 1 more is _____.



_____. 1 more is _____.



_____. 1 more is _____.



_____. 1 more is _____.



2. Count each set. Then, draw a line to the number that tells "one more."



16



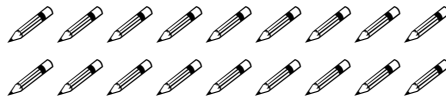
19



6



20



9

3. Draw or count to solve.

Dana made a chain of 12 paper clips. Then, she added 1 more paper clip to the chain. How many paper clips are in Dana's chain now?

Dana has _____ paper clips in her chain now.

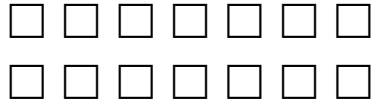


Name _____

Date _____

1. Count and write the number.

Draw 1 more. Then write the new number.



_____. 1 more is _____.



_____. 1 more is _____.

2. Draw or count to solve.

Andre made a stack of 8 blocks. Then, he added 1 more block to the stack. How many blocks does Andre have now?

Andre has _____ blocks in his stack now.



Name _____

Date _____

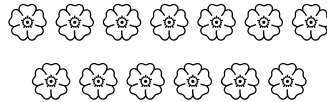
1. Count each set. Then, draw a line to the number that tells "one more."



11



10



12



14

2. Draw or count to solve.

Luna made a train of 7 cars. Then, she added 1 more car to the train.
How many cars are in Luna's train now?

Luna has _____ cars in her train now.



_____. 1 more is _____.

sentence frame

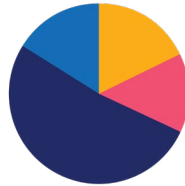


Lesson 12

Objective: Generate a number that is one less than another number up to 20.

Suggested Lesson Structure

■ Fluency Practice	(9 minutes)
■ Application Problem	(7 minutes)
■ Concept Development	(26 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (9 minutes)

- Write Teen Numbers **K.2B** (3 minutes)
- Show Teen Numbers **K.2B** (3 minutes)
- Count the Say Ten Way **K.2A, K.5A** (3 minutes)

Write Teen Numbers (3 minutes)

Materials: (S) One stick of 10 linking cubes that are the same color, 10 loose cubes of a different color, personal white board

Note: By writing the corresponding numeral for each part and then the whole, students are continually reminded that the 1 in teen numbers refers to 10 ones.

- T: Place your stick of ten cubes on your personal white board.
 T: Place 3 cubes next to your 10 cubes.
 T: Write the number of cubes that you placed on your board.
 T: (Students write 13.) Say the number.
 S: Ten 3. → Thirteen!

Repeat process for several other teen numbers.

Show Teen Numbers (3 minutes)

Materials: (S) One stick of 10 linking cubes that are the same color, 10 loose cubes of a different color

Note: A color change at 10 makes the two parts stand out visually, allowing students to compose teen numbers with efficiency.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Give students who need more support, including some emergent bilingual students, extra time to allow them to process the meanings of the essential terms in your lesson before calling for responses. Review and post key vocabulary (cube, more, less, remove), and allow extra conversation time while students are working.



- T: Hold up your stick of 10 cubes.
 T: Show me 11 cubes. Say the number the Say Ten way.
 S: Ten 1.
 T: Take off the extra one, and put it back in the pile of 10 ones.

Repeat process for several other teen numbers.

Count the Say Ten Way (3 minutes)

Note: Counting up and down prepares students to work with the pattern of 1 less in the Concept Development.

- T: Let's count the Say Ten way.

Guide students to count forward and backward between 10 and 20.

Application Problem (7 minutes)

Peter was sitting at lunch eating his french fries. He counted 8 left on his plate. He ate 1 french fry. He ate another french fry. Then, he ate another french fry. How many french fries did Peter have then?

Note: The purpose of this Application Problem is to simply prepare students for thinking about 1 less. Eight. 1 less is 7. Seven. 1 less is 6.



Concept Development (26 minutes)

Materials: (T) Sentence frame (Template) (S) 2 sets of 10 linking cubes (10 in one color and 10 in another color)

Note: Notice that we are not saying "19 is one less *than* 20." This is very complex linguistically for many kindergarten students who can say "19 is less than 20" without quantifying the difference. We simply are extending the "one more" lesson to "one less" as an opportunity for the students to notice the structure of the number system as they take off one from a set within 20.

- T: Show me a tower of 11 cubes.
 T: (Students show a tower of 11.) How many cubes are you holding?
 S: 11.
 T: Take off one cube. How many do you have now?
 S: 10.
 T: Show me 14. (Point to the first sentence frame.) If you were to take one off, how many would you have now?
 S: 13.
 T: How can you check your answer?



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Challenge students who who have demonstrated proficiency by providing them with extensions of the Application Problem to solve. Ask, "If Peter ate two fries at a time, how many would he have then? If Peter started with 18 fries and ate one at a time, how many would he have left? And, if Peter had 50 fries and he ate 1 and then another and then another, how many would he have then?"



- S: We can take off one cube and count. → We can think about the number that comes before 14 when we count. → We can count backward from 14.
- T: Good! Take off another cube.
- S: (Show 12.)
- T: How many cubes do you have now?
- S: 12.
- T: Repeat with me, “13. 1 less is 12.”
- S: 13. 1 less is 12.

Use the sentence frame to help students express the relationship of subtracting one from a given number. Continue taking off one cube from several numbers within 20.

Move from teacher modeling with objects to encouraging students to solve problems on their own. Students may use connecting cubes or counting strategies to solve.

- T: Now, let’s try to solve a couple problems. As you work, you may use your connecting cubes or use what you know about counting. Mica had a train 18 cars long. He took off 1 car in his train. How many cars does he have now?
- S: 17.
- T: How did you get 17?
- S: I built a train of 18 cubes and took off 1 cube. → I counted backward to find the number that comes before 18.
- T: Let’s practice counting down from 20. This will help you find the number that is one less.
- S: (Teacher and students counting together. Teacher may point to a counting tool, such as a hundred chart or calendar.) 20, 19, 18, 17, 16, 15, etc.

Provide additional problems for students to solve. (Example: Nina builds a tower 15 blocks tall. Then, she gives 1 of the blocks to her brother. How many blocks are in her tower now?) Use the sentence frame to help students express the relationship of adding one to a given number.

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time. As students find the numbers that are one less, have them continue to say the relationship of each number to its preceding number. Example: Fifteen. 1 less is 14.

Name Both Date _____

1. Count and write the number.
Cross off one to find “one less.” Then write the new number.

~~☒~~ □ □ □ □ □ □ 14, 1 less is 13.
□ □ □ □ □ □

● ● ● ● ● ● 10, 1 less is 9.
● ● ● ● ● ●

△ △ △ △ △ △ ~~△~~ 8, 1 less is 7.

~~→~~ → → → → → 13, 1 less is 12.
→ → → → →

2. Write the missing numbers as you count down.

18, 17, 16, 15, 14, 13, 12, 11



Student Debrief (8 minutes)

Lesson Objective: Generate a number that is one less than another number up to 20.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner.

They can use manipulatives, draw pictures, count back, or count all to solve as needed. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- When we counted backward from 10 to 1 earlier in the year, we noticed a 1-less pattern. Does the 1-less pattern continue with teen numbers? How do you know?
- What is 1 less than 15? How did you find the solution?
- If you did not have connecting cubes or a picture in front of you, how would you find one less?
- How would you teach a friend to find “one less” for any number?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students’ understanding of the concepts that were presented in today’s lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

3. Count each set. Then, draw a line to the number that tells “one less.”

4. Draw or count to solve.
Lucia made a chain of 10 paper clips. Then, she took off one paper clip from the chain. How many paper clips are in Lucia’s chain now?

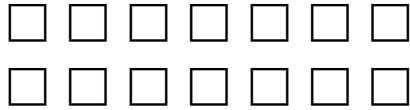
Lucia has 9 paper clips in her chain now.

Name _____

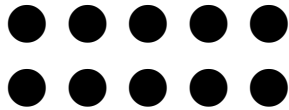
Date _____

1. Count and write the number.

Cross off one to find "one less." Then write the new number.



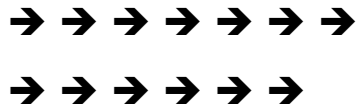
_____. 1 less is _____.



_____. 1 less is _____.



_____. 1 less is _____.



_____. 1 less is _____.

2. Write the missing numbers as you count down.

18, 17, 16, _____ 14, 13, 12, _____



3. Count each set. Then, draw a line to the number that tells "one less."



14



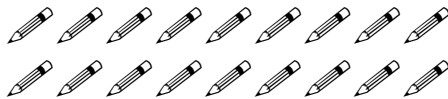
17



4



18



7

4. Draw or count to solve.

Lucia made a chain of 10 paper clips. Then, she took off one paper clip from the chain. How many paper clips are in Lucia's chain now?

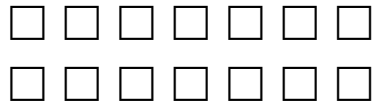
Lucia has _____ paper clips in her chain now.

Name _____

Date _____

1. Count and write the number.

Cross off one square to show "one less." Then write the new number.



_____. 1 less is _____.

2. Write the missing number as you count down.

16, 15, 14, 13, 12, _____

3. Draw or count to solve.

José made a stack of 8 blocks. Then, he took off one block from the stack. How many blocks does José have now?

José has _____ blocks in his stack.



Name _____

Date _____

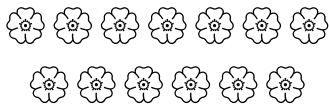
1. Count each set. Then, draw a line to the number that tells "one less."



9



8



10



12

2. Write the missing numbers as you count down.

20, 19, 18, _____

10, 9, 8, _____

_____. 1 less is _____.

sentence frame



Lesson 13

Objective: Show, count, and write to answer *how many* questions in linear and array configurations.

Suggested Lesson Structure

■ Fluency Practice	(9 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(28 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (9 minutes)

- Count the Say Ten Way **K.2A, K.5A** (3 minutes)
- Show Teen Numbers **K.2B** (3 minutes)
- Write Teen Numbers with Tower Configurations **K.2B** (3 minutes)

Count the Say Ten Way (3 minutes)

Note: Counting up and down prepares students to count and answer *how many* questions accurately in the Concept Development.

T: Let's count the Say Ten way.

Guide students to count forward and backward between 10 and 20.

Show Teen Numbers (3 minutes)

Materials: (S) 2 sticks of 10 linking cubes that are different colors

Note: This activity gives students continued practice with counting in linear configurations and guides students to efficiency with the color change at 10.

T: There are 10 cubes on each of your sticks. Connect your 2 cube sticks.

S: (Students connect cube sticks.)

T: Say the number the Say Ten way.

S: 2 tens.

T: Take off 1 cube, and put it on the carpet space in front of you.

S: (Students do so.)

- T: Say how many you have now the Say Ten way.
 S: Ten 9.
 T: Say how many you have the regular way.
 S: 19.

Repeat the process for three or four other teen numbers.

Write Teen Numbers with Tower Configurations (3 minutes)

Materials: (T) 1 stick of 10 linking cubes that are the same color, 10 loose cubes of a different color
 (S) Personal white board

Note: The color change, along with the Say Ten way, supports students in accurately writing teen numbers. Guide students to recognize groups of cubes as ten ones and some ones, rather than count all.

- T: (Hold a tower of 12 connected linking cubes, with the bottom 10 a different color than the top 2.) Write the number on your personal white board.
 S: (Students write 12.)
 T: Say the number the Say Ten way.
 S: Ten 2.
 T: Say the number the regular way.
 S: 12.

Repeat the process for several other teen numbers.

Application Problem (5 minutes)

Vincent's father made 15 tacos for the family. Show the 15 tacos as 10 tacos and 5 tacos. Draw a number bond to match.

Note: This Application Problem is a simple experience of decomposition. We can ask students to draw the decomposition in 5-groups, another name for a ten-frame configuration, but which has the advantage of emphasizing the five.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Provide students who need more support with learning aids in the form of counters to model the Application Problem. Give them a number bond template to complete the task. Scaffolding the Application Problem allows students to complete the task and focus on the lesson.



Concept Development (28 minutes)

Materials: (S) 2 sticks of 10 linking cubes with a color change at five, personal white board, personal Rekenrek (from Lesson 10); set of place value cards: 1 place value 10 card (Lesson 6 Template 2) and 5-group cards 1–9 (Lesson 1 Fluency Template 2) (per pair)

- T: Count in order from 1 to 20.
 S: 1, 2, 3, ..., 20.
 T: Count from 10 to 20 the Say Ten way.



- S: Ten 1, ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8, ten 9, 2 tens.
- T: Partner A, show the number that is one more than 13 on the Rekenrek.
- T: Partner B, show the number that is one more than 13 with the place value cards.
- T: Check that you are each showing the same number. What is the number?
- S: 14.
- T: Count from 14 up to 20.
- S: 14, 15, 16, 17, 18, 19, 20.
- T: Partner B, show the number that is one more than 7 on the Rekenrek.
- T: Partner A, show the number that is one more than 7 with the place value cards.
- T: What is the number?
- S: 8.
- T: Count from 8 up to 20.

Repeat with two more numbers so that each partner uses both representation tools a second time.

- T: (Pass out the linking cubes.)

Have students connect the linking cubes to create a continuous number train to 20. Have them count to see they have 2 sticks of 10 ones.

- T: Show me ten 7 cubes.
- T: (Allow students time to finish.) How many cubes is that?
- S: Ten 7. → Seventeen!
- T: Make your long number train of 2 sticks of 10 again. Break it, and put 1 stick below the other. How many cubes do you have now?
- S: (Count again, as needed.) 10 here and 10 here. → 2 tens. → Twenty!

Have students break the linking cube sticks at the color change. Have them place the shorter sticks one below the other. Guide students to place the sticks in four rows and recount the cubes from left to right starting from the top with number 1 and continuing this way to the fourth row of 16 to 20. Have them recount to get better at it. They will enjoy the chance to recount.

- T: (Allow students time to finish.) How many cubes did you count?
- S: 20.
- T: (Revisit the process.) Put the sticks back into one train from 1 to 20. Count. Break the stick into 2 sticks of 10 cubes. Count. Break the sticks to make 4 sticks of 5. Count.
- T: (Allow students time to finish.) How many cubes do you have now? Count to check.
- S: 20.

Before doing the Problem Set, give students a personal white board or blank paper.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students, including some emergent bilingual students, may need support with the term *one more*. Review the term by modeling it. Show two linking cubes, and say “one more” as you add another cube to the two. Practice asking *how many* questions, and count with them until they get accustomed to answering the question.



- T: Now, I will say a number and you will draw the same number of dots in rows. Draw 12 dots. (Rows do not need to be equal.)
- S: (Draw 12 dots in rows.)
- T: Turn to your partner and count their dots. If they don't have 12 dots, draw more dots or erase some dots until there are 12.
- S: (Check partner's drawings.)
- T: Erase your boards. Draw 18 dots.

Continue the process using a variety of numbers up to 20.

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Student Debrief (8 minutes)

Lesson Objective: Show, count, and write to answer *how many* questions in linear and array configurations.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Have students always check their work with a partner once they bring it to the carpet. Encourage them to notice, if they don't, that the number of ducks is the same. Ask: "How do they look different?" "Is there another way we can put the 16 ducks?"

Be sure they compare how they showed 15 and 12 in rows in the last two problems. Then, possibly discuss:

- T: Count the cubes as I lay them down. (Place 10 ones in a horizontal line.)
- S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
- T: What is one more than 10? (Add a cube.)
- S: 11.
- T: One more than 11? (Add a cube.)
- S: 12.
- T: How many cubes do you see?
- S: 12.

Name Ang Date _____

The ducks found some tasty fish to eat in the boxes! Count up on the number path.

Write the missing numbers for the boxes that have a duck on top.

12 14 16 18 20

Write the missing numbers for the boxes that have a duck on top.

11 15 16 19 20

How many ducks do you count?

16 16

Draw a set of circles equal to the number in the box. Draw your circles in rows.

15

Draw a set of squares equal to the number in the box. Draw your squares in rows.

12



T: (Slide the cubes into a vertical line.) Do I still have 12 cubes? How do you know?

T: (Slide the cubes into different rectangular array configurations, asking after each change, “How many do I have now?”)

Guide students to see that the number of objects is the same regardless of how they are arranged. Let them close the lesson by showing 12 cubes in different rows to a partner. (Rows do not have to be complete.)

Exit Ticket (3 minutes)

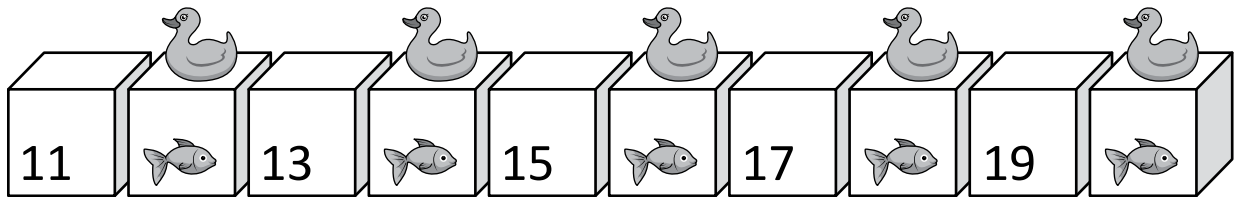
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students’ understanding of the concepts that were presented in today’s lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____

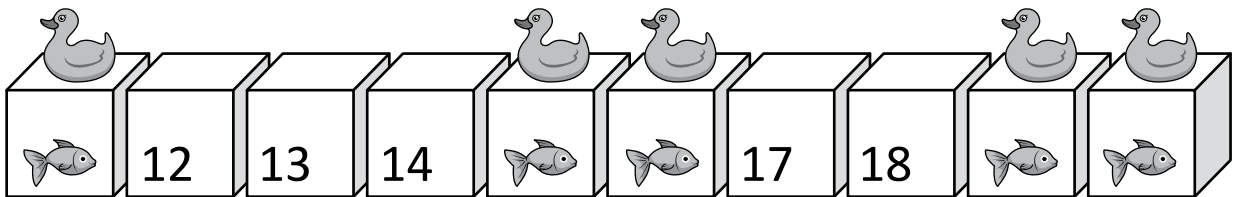
Date _____

The ducks found some tasty fish to eat in the boxes!
Count up on the number path.

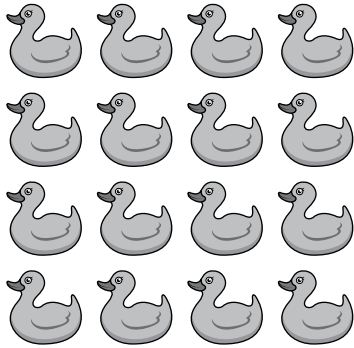
Write the missing numbers for the boxes that have a duck on top.

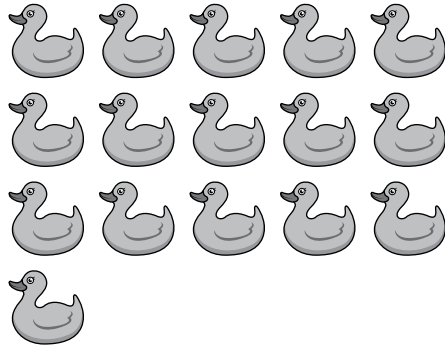


Write the missing numbers for the boxes that have a duck on top.



How many ducks do you count?





Draw a set of circles equal to the number in the box.
Draw your circles in rows.

15

Draw a set of squares equal to the number in the box.
Draw your squares in rows.

12

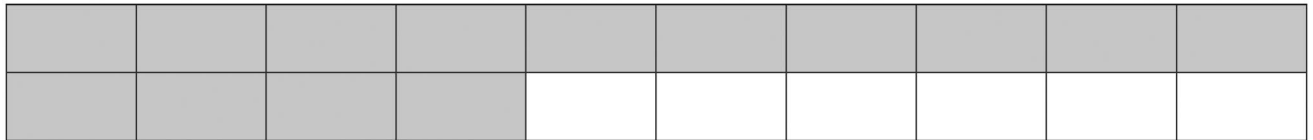


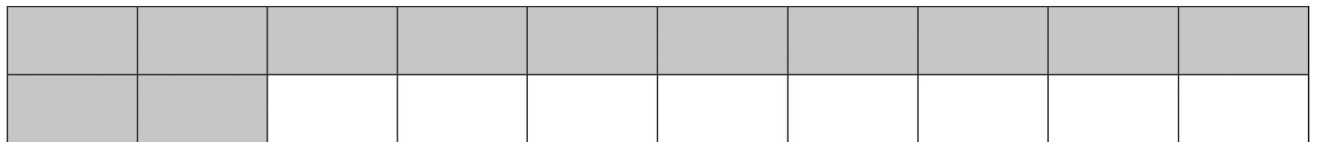
Name _____

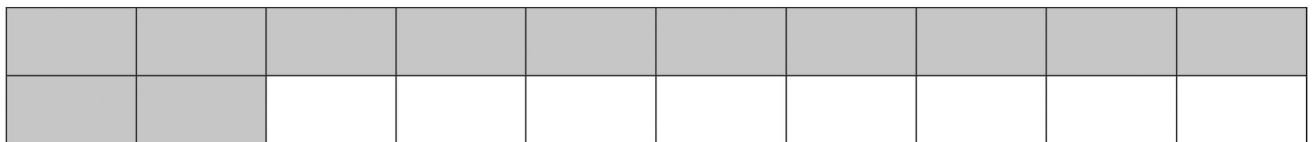
Date _____

Draw a set of 16 dots. Draw your dots in rows.

Look at the 3 sets of blocks below. Count the shaded blocks in each set and write how many.









Name _____

Date _____

Count the objects. Draw dots to show the same number on the double 10-frames.



A 3x4 grid of 12 fish. The first two rows have 4 fish each, and the third row has 4 fish. An arrow points to two empty 2x5 grids.

A 5x4 grid of 20 apples. The first four rows have 4 apples each, and the fifth row has 3 apples.

An arrow points to two empty 2x5 grids.



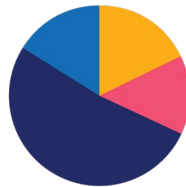
Lesson 13: Show, count, and write to answer *how many* questions in linear and array configurations.

Lesson 14

Objective: Show, count, and write to answer *how many* questions with up to 20 objects in circular configurations.

Suggested Lesson Structure

■ Fluency Practice	(9 minutes)
■ Application Problem	(7 minutes)
■ Concept Development	(26 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (9 minutes)

- Write Teen Numbers with Arrays **K.2B** (3 minutes)
- Place value cards for Teen Numbers **K.5A** (3 minutes)
- Teen Counting Array Template **K.2C, K.2D** (3 minutes)

Write Teen Numbers with Arrays (3 minutes)

Materials: (T) Pre-drawn arrays (S) Personal white board

Note: Now that counting in arrays with teen numbers has been introduced, the goal is to develop speed and accuracy. Encourage students to locate 2 fives, or a group of 10, within each array to facilitate counting.

T: (Project a 5 by 3 array of stars.) On your personal white board, write the number of stars you see.

S: (Students write 15.)

T: Say the number the Say Ten way.

S: Ten 5.

T: Say the number the regular way.

S: 15.

Repeat the process for three or four other teen numbers.

Place Value Cards for Teen Numbers (3 minutes)

Materials: (T) Large place value cards (Lesson 6 Template 1)

Note: This activity reminds students that the *1* in teen numbers refers to 10 ones, preparing them for answering *how many* questions in writing.

T: (Hold the 10 card and 5 card so that it appears as 15.) Say the number.

S: 15.

T: Say the number the Say Ten way.

S: Ten 5.

Break apart the cards into 10 and 5. Repeat the process for other teen numbers.

Teen Counting Array Template (3 minutes)

Materials: (S) Teen counting array (Fluency Template)

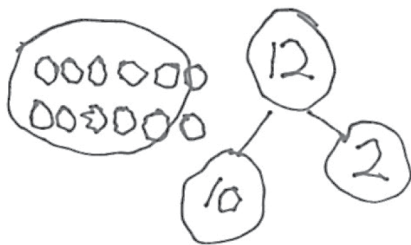
Note: Repeated experiences with counting in arrays lead students to efficiency over time. Guide students to see 10 as 2 fives to determine the total skillfully.

Have students locate the teen counting array. Have students count how many are in each array.

Application Problem (7 minutes)

Eva put her 12 cookies on a cookie sheet in 2 rows of 6. Draw Eva's cookies. Show her 12 cookies as a number bond of 10 ones and 2 ones using your place value cards. Circle the 10 cookies that are inside the 12 cookies.

Have students explain how the parts of the number bond match the parts of their drawing and the place value cards with a partner.



Note: This Application Problem serves as a bridge from the previous lesson's focus on organizing and counting objects in an array configuration. It also reviews the grade-level standard of understanding teen numbers as ten ones and some more ones.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Scaffold the Application Problem for students who need more support, including some emergent bilingual students. Add gestures when reading the Application Problem. Hold both arms straight out when reading "rows," and make a large circle with both arms while reading the direction "circle the 10."



Concept Development (26 minutes)

Materials: (S) double 10-frame mat (Lesson 9 Template) within a personal white board; Teen numeral and dot cards (only numeral cards from 10–20) (Template), paper plate or round mat, bag of 20 counting objects (per pair)

- T: Let's see how well you can show, count, and write numbers!
- T: Partner A, draw a card and tell your partner the number. You can say the number the regular way or the Say Ten way.
- T: Partner B, put that number of objects around the outside edge of your plate. (Guide them to use the edge of the plate to make a circular configuration.)
- T: Now, take turns counting the objects. How many are there?
- T: Partner B, now you get to draw the card, and Partner A will show it.
- T: Count the objects. How many are there?

Repeat the process two or three times.

- T: Let's try something different. We won't use the number cards for this.
- T: Partner A, put any number of objects you want in a circle around the edge of your plate.
- T: Partner B, count the objects and write the number on your personal white board.
- T: Now, Partner B gets to put any number of objects in a circle around the edge of the plate, and Partner A counts them and writes the number on her personal white board.

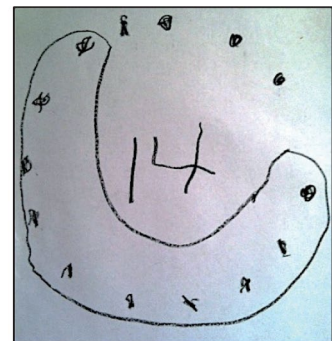
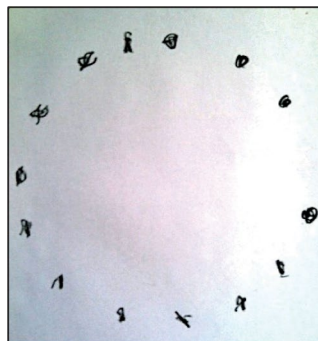
Repeat the process two or three times.

- T: This time, Partner A, write any number between 11 and 20 on your personal white board. Partner B, count out that many objects as you place them in a circle around the edge of the plate. How many objects are there?
- T: Partner A, count each object as you move it from the circle to the 10-frame to check that the count is correct. How many objects are there?
- T: Now, Partner B, you get to write any number between 11 and 20 on your personal white board. Partner A, count out



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

For students needing more proficiency practice, scaffold Concept Development work. Provide a plate with 20 empty circles drawn around the edge. This will serve as a visual container for students when they are showing numbers up to 20. For further support, label the circles with numbers 1–20 to help students with sorting.



that many objects as you place them in a circle around the edge of the plate. How many objects are there?

- T: Partner B, count each object as you move it from the circle to the 10-frame to check that the count is correct. How many objects are there?

Repeat the process two or three times.

Before using the Problem Set, have students use the plate to draw dots in a circular shape and count each other's dots. Have them circle 10 dots to prove that they counted correctly (as pictured below).

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Student Debrief (8 minutes)

Lesson Objective: Show, count, and write to answer *how many* questions with up to 20 objects in circular configurations.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- What do you notice about all of the pictures?
- Which way do you like to count—when we show the number in a circle or when we show it as a tower? Why?
- Did the number change when you moved the objects from the circle to the 10-frame? Why not?
- (Show objects in a circle configuration, and have students count how many. Then, slide the objects to change the circle into a line.) How can you prove that the number is still the same? Tell



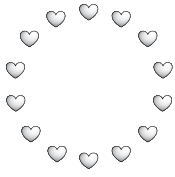
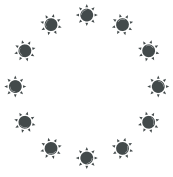
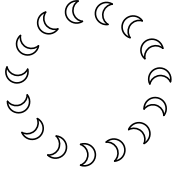
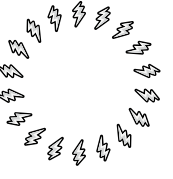
NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

For students who have demonstrated proficiency, provide an opportunity for deeper understanding.

- Ask students how many different ways they can count the objects.
- Possible answers can be as follows: by ones, by twos, by threes, and by counting a ten and then counting the remaining objects.

Name Nelson Date _____

Whisper count how many objects there are. Write the number.

 <div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">14</div>	 <div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">12</div>
 <div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">15</div>	 <div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">18</div>

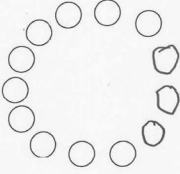
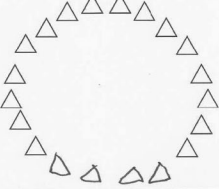


your partner. Did he prove it to you? What are some ways you proved it? Which ways were the most convincing?

Exit Ticket (3 minutes)

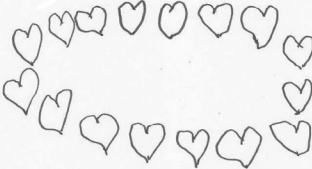
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Whisper count and draw in more shapes to match the number.

<div data-bbox="966 373 1026 430" data-label="Text"> <p>13</p> </div> 	<div data-bbox="1263 373 1323 430" data-label="Text"> <p>20</p> </div> 
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Early finishers: Write your own teen number in the box. Draw a picture to match your number.

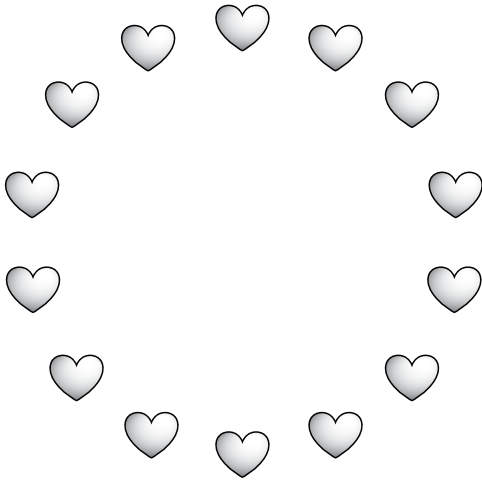
16

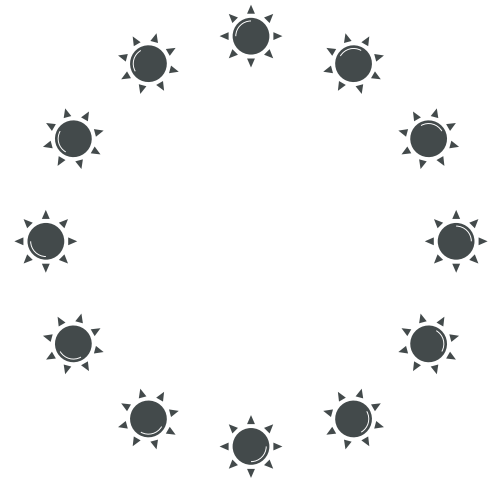


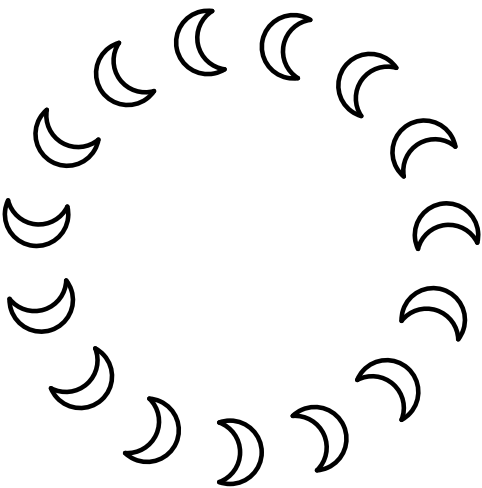

Name _____

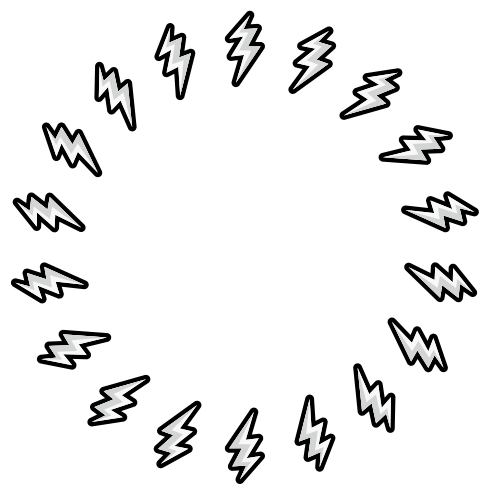
Date _____

Whisper count how many objects there are. Write the number.





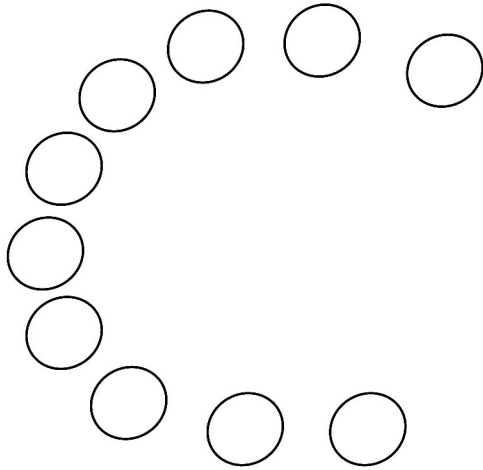




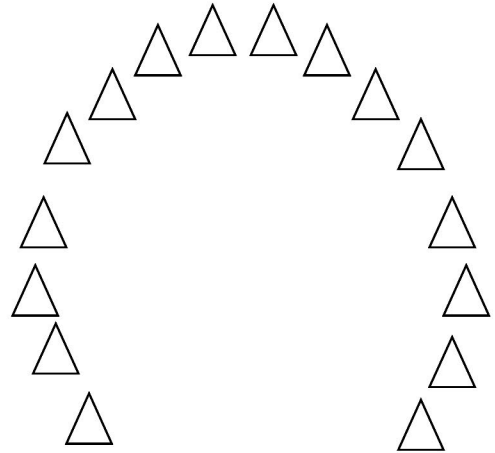


Whisper count and draw in more shapes to match the number.

13



20



Early finishers: Write your own teen number in the box. Draw a picture to match your number.



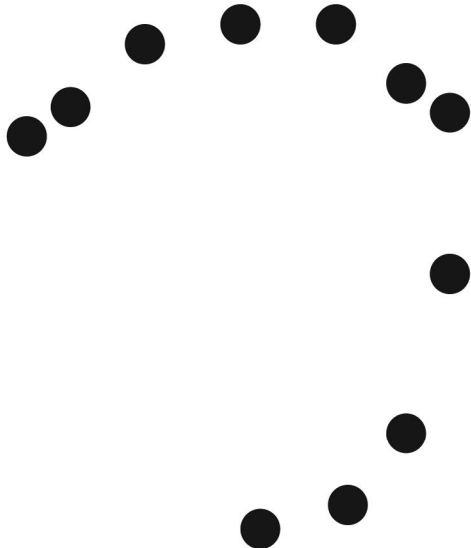
Name _____

Date _____

Count the stars. Write the number in the box.



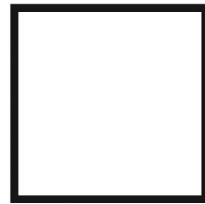
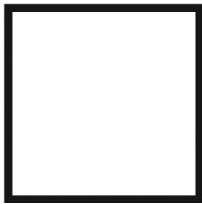
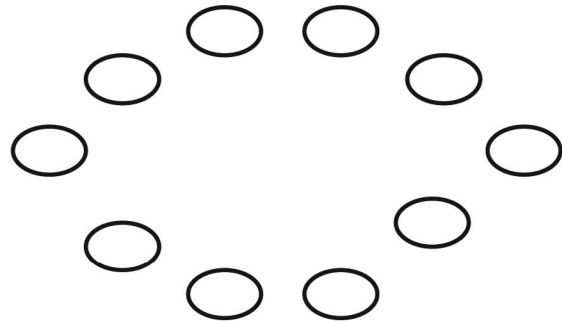
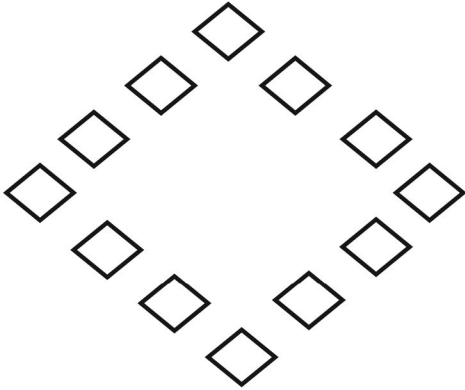
Whisper count and draw in more dots to match the number.



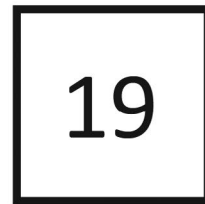
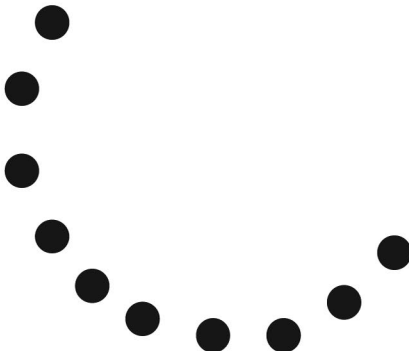
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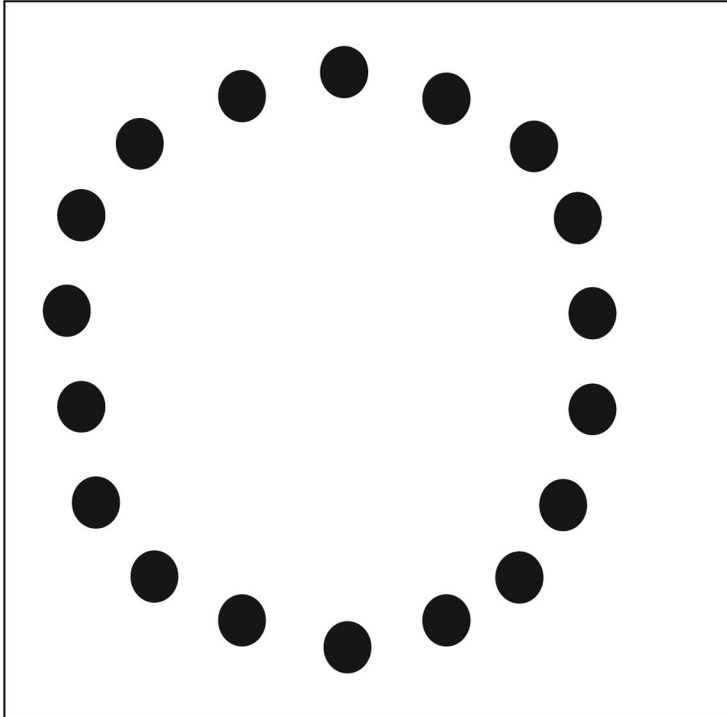
Count the objects in each group. Write the number in the boxes below the pictures.



Count and draw in more shapes to match the number.



Count the dots. Draw each dot in the 10-frame. Write the number in the box below the 10-frames.



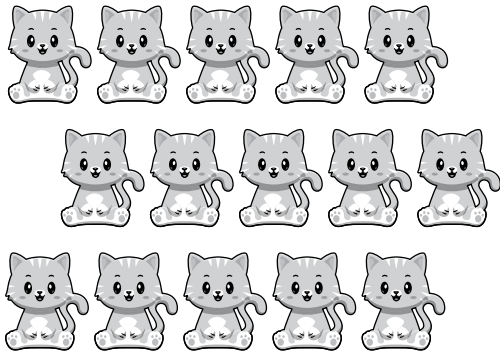
Write a teen number in the box below. Draw a picture to match your number.

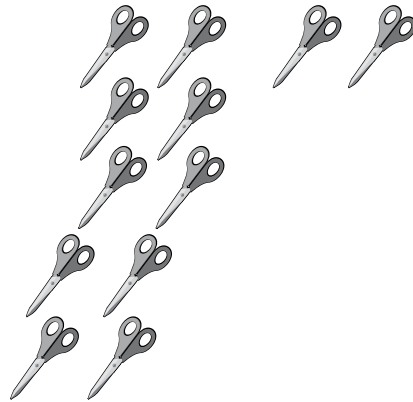


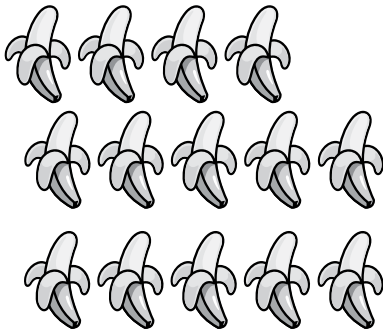
Name _____

Date _____

Count the objects in each group and write the number.



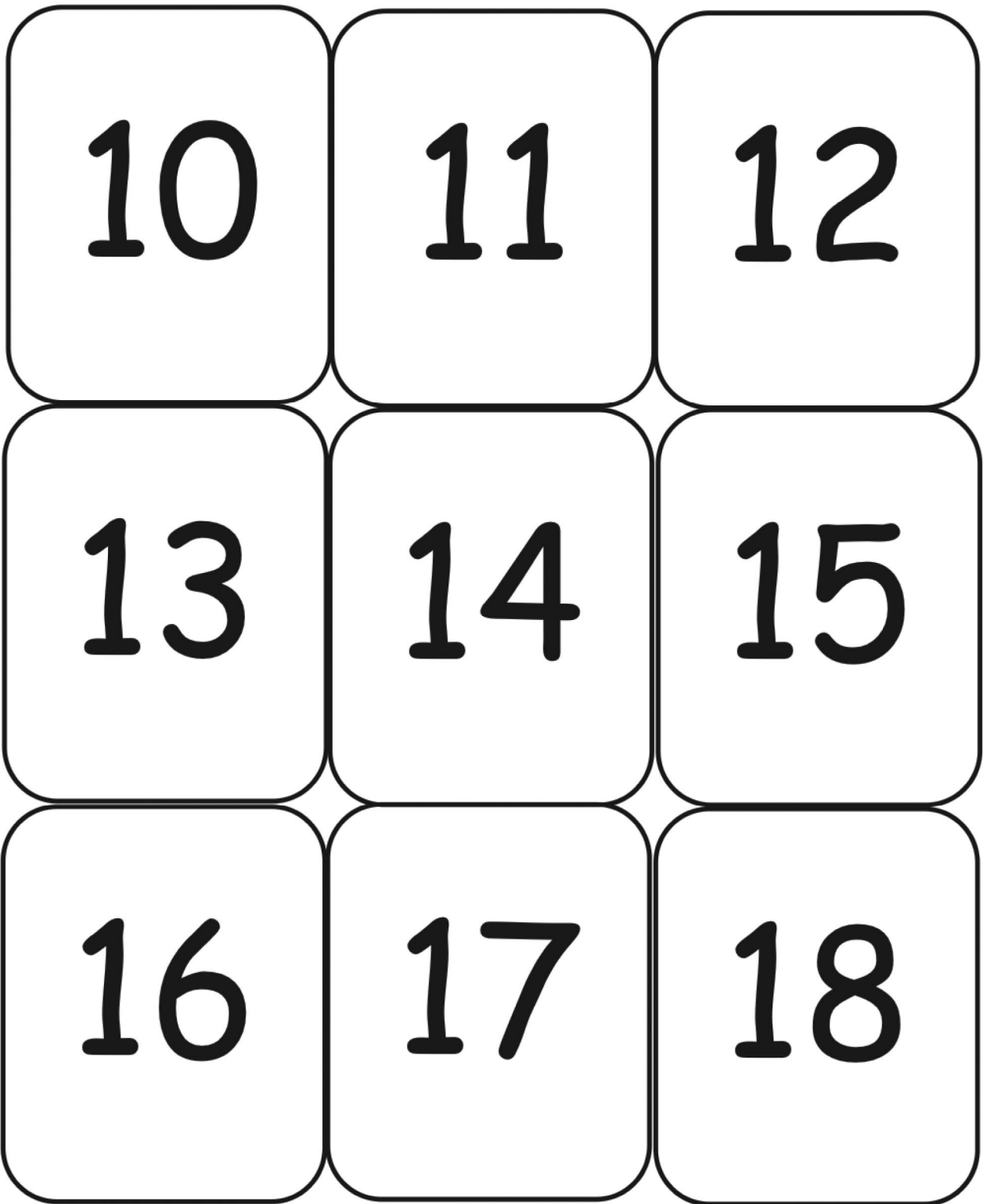






teen counting array



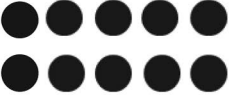
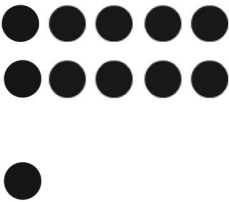
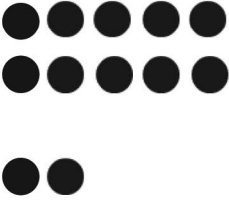
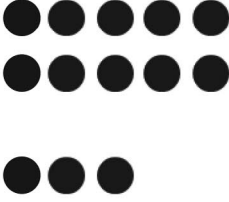
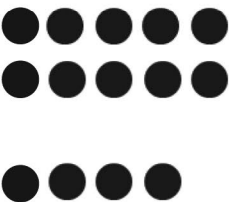
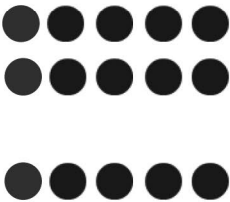
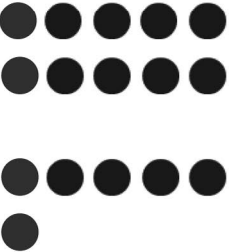


teen numeral cards



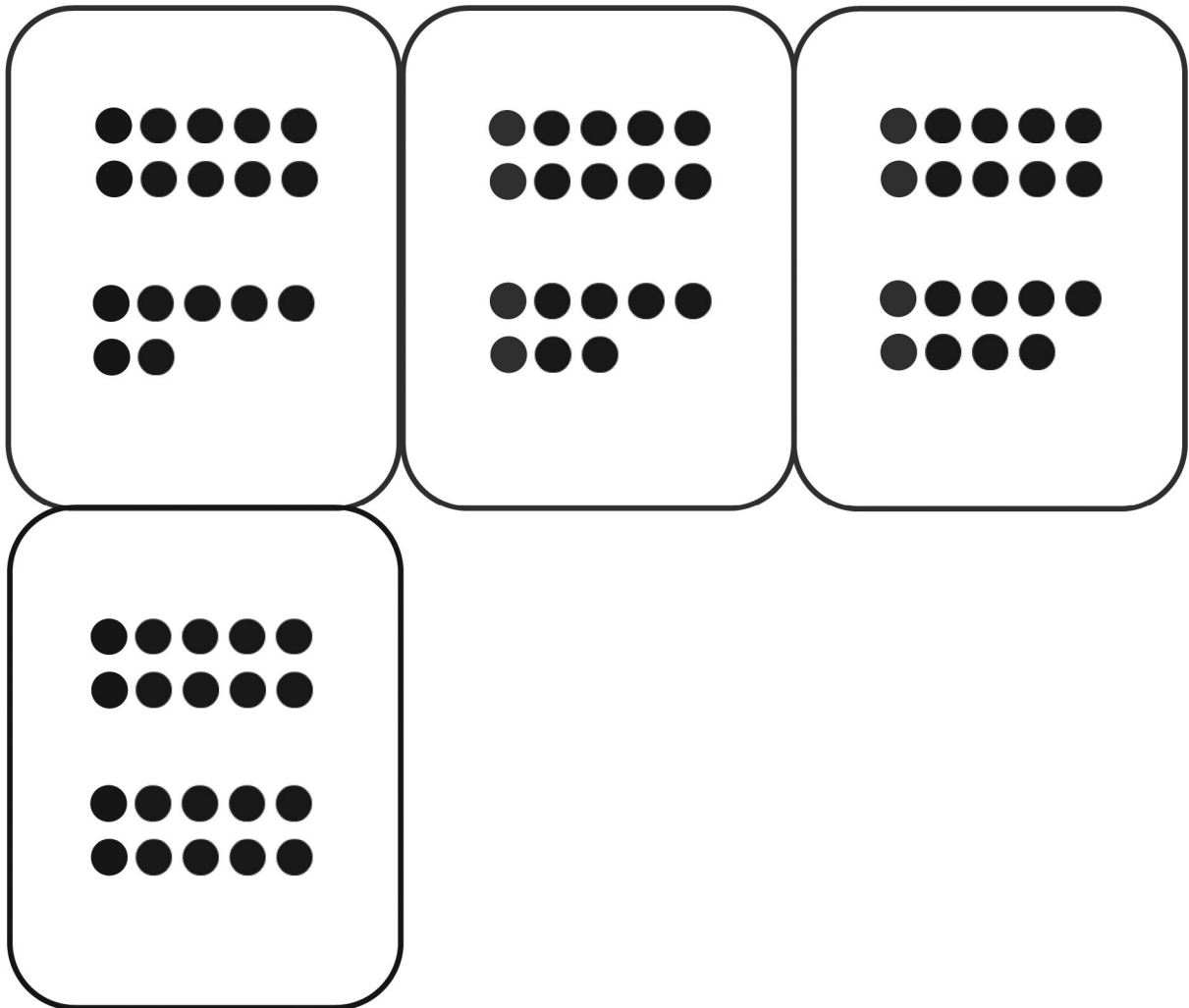
Lesson 14:

Show, count, and write to answer *how many* questions with up to 20 objects in circular configurations.

19	20	
		
		

teen numeral and dot cards





Note: Only numeral cards are used in this lesson. Set aside full set for later use. Consider copying on card stock for durability.

teen numeral and dot cards

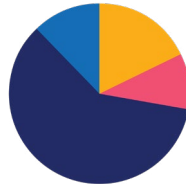


Lesson 15

Objective: Use comparative language to compare sets of up to 20 objects.

Suggested Lesson Structure

■ Fluency Practice	(9 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(30 minutes)
■ Student Debrief	(6 minutes)
Total Time	(50 minutes)



Fluency Practice (9 minutes)

- Count the Say Ten Way **K.2A, K.5A** (3 minutes)
- Show Teen Numbers **K.2B** (3 minutes)
- Write Teen Numbers with Tower Configurations **K.2B** (3 minutes)

Count the Say Ten Way (3 minutes)

Note: Counting up and down prepares students to count and answer *how many* questions accurately in the Concept Development.

T: Let's count the Say Ten way.

Guide students to count forward and backward between 10 and 20.

Show Teen Numbers (3 minutes)

Materials: (S) 2 sticks of 10 linking cubes that are different colors

Note: This activity gives students continued practice with counting in linear configurations and guides students to efficiency with the color change at 10.

T: There are 10 cubes on each of your sticks. Connect your 2 cube sticks.

S: (Students connect cube sticks.)

T: Say the number the Say Ten way.

S: 2 tens.

T: Take away 1 cube and put it on the carpet space in front of you.

- S: (Students do so.)
 T: Say how many you have now the Say Ten way.
 S: Ten 9.
 T: Say how many you have the regular way.
 S: 19.

Repeat the process for three or four other teen numbers.

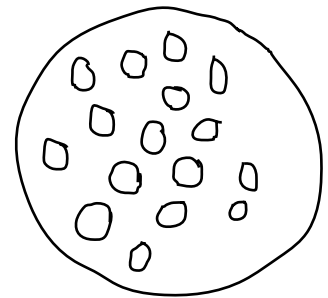
Write Teen Numbers with Tower Configurations (3 minutes)

Materials: (T) 1 stick of 10 linking cubes that are the same color, 10 loose cubes of a different color
 (S) Personal white board

Note: The color change, along with the Say Ten way, supports students in accurately writing teen numbers. Guide students to recognize groups of cubes as ten ones and some ones, rather than count all.

- T: (Hold a tower of 14 connected linking cubes, with the bottom 10 a different color than the top 4.) Write the number on your personal white board.
 S: (Students write 14.)
 T: Say the number the Say Ten way.
 S: Ten 4.
 T: Say the number the regular way.
 S: 14.

Repeat the process for several other teen numbers.



Application Problem (5 minutes)

Marco put 16 pepperonis on his pizza. Draw Marco's pizza. Show his 16 pepperonis. Then share your picture with a partner. Count each other's pepperonis to ensure you each have 16.

Have students explain how they kept track of their counting as they worked to find the number of pepperonis.

Note: This Application Problem asks students to both produce a set for a given number and to count a set of items. The problem serves as review of prior lessons in preparation for using counting to compare sets of objects.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

For students who need more support representing the Application Problem pictorially, provide them with concrete manipulatives, such as counters, to show the 16 pepperonis. Then have students can use a drawing to replace each concrete manipulative and choose a strategy to track their count. Scaffolding the Application Problem provides all students with access to the content and prepares them for the Concept Development.



Concept Development (30 minutes)

Prior to the lesson, prepare bags containing differing amounts of small objects. Each bag should have 1–20 objects.

Materials: (T) Comparison words chart (Template)
(S) Bag of small objects, personal white board, blank piece of paper

Call students to stand on the rug. Separate students into two unequal groups, but do not disclose the number of students in each group.

T: In math, what does the word *equal* mean?

S: Same amount.

T: I just put you into two groups. How can we decide if both groups are equal? (Allow think time.)

S: Count each group. → Put the groups in lines and see if they are the same length.

T: Alright, let's start by lining up the two groups. (Arrange each group of students in an equally spaced line. Lines should be next to each other so they can be directly compared.) Do Group A and Group B look equal?

S: No.

T: Now, let's count each group to double-check. (As a class, count each group. Record the number of students in each group on the board.) Are the groups equal?

S: No. One group has 12 and the other has 9.

T: (Display the comparison words chart (Template).) This chart lists some words we can use to compare two groups. Listen as I read these words. (Read the words from the template and point to each word as you read it.)

T: With a partner, decide which of these words we can use to compare Group A with Group B.

S: More than. → Greater than.

T: Group A has more students than Group B. 12 is greater than 9.

T: With a partner, decide which of the words on the chart we can use to complete this sentence: Group B has...

S: Less than. → Fewer students than Group A.

T: Group B has fewer students than Group A. 9 is less than 12.

T: You can line up and match objects in two sets to compare them. You can also count the objects in each set to compare them.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Ask students to verbalize who has more objects and who has fewer objects for each round of the game Walk and Compare. For example, "I have 15 objects and you have 12 objects; 15 is more than 12." Or, "I have 13 objects and you have 18 objects; 13 is less than 18." Students who need more support, including some emergent bilingual students, benefit from verbalizing and hearing precise mathematical language.



Give each student a bag of objects. Strategically select which students will have bags containing small quantities of objects and which students will have bags containing large quantities.

- T: Let's play a game called Walk and Compare. Walk around the room, holding your bag of objects. When I say "stop," find a partner and sit where you are. Each partner will empty their bag of objects. Decide which partner has more objects and which has fewer.

Call on a pair of students to share their strategy for comparing sets with their partner. Encourage partners to use comparison language when describing their sets.

- T: Max and Ella, how did you compare your sets of objects?
S: We counted them. → I have 14 objects in my bag. → My bag only has 9 objects.
T: Use the words *more* or *fewer* to tell about these two sets of objects.
S: I have more objects than my partner. → I have fewer objects than my partner.
T: Max has more objects than Ella. Ella has fewer objects than Max.
T: Turn to your partner and use the words *fewer than* to compare your sets.

While the other partners are talking, ask each student in the selected pair to write the number of objects in their set on their personal white board. Then, cover each set of objects with a piece of paper and display each white board.

- T: Class, can you tell which group has more objects and which has fewer objects by looking at the numbers?
S: Yes, it's the same as before. → Max has 14. Ella has 9. → Max still has more objects than Ella.
T: Max still has more objects. 14 is greater than 9.
T: Turn to your partner and use the words *less than* to compare the numbers.
S: 9 is less than 14.

Encourage each student in a pair to write the number of objects in their set on their personal white board, cover their objects, and use comparison language (*greater than*, *less than*) to describe their number with their partner's number.

Repeat the game as time permits, allowing students to pair with new partners each time.



Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Distribute the Problem Set to students. Have students use comparison language to identify if a set is more than, fewer than, or equal to another set as well as if one number is greater than or less than another number. The directions for each problem should be read aloud and reread, as needed.

Student Debrief (6 minutes)

Lesson Objective: Use comparative language to compare sets of up to 20 objects.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

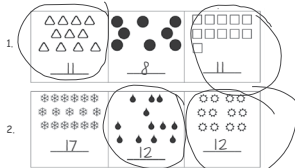
- Share your work with a partner. Which answers were the same? Which answers were different?
- What are some strategies for comparing sets of objects?
- How did our Application Problem relate to today's Problem Set?

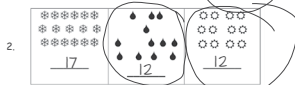
Exit Ticket (5 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

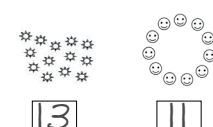
Name Sam Date _____

Count and write the number. Circle the two sets that are equal.

1. 

2. 

3. Count and write how many.




13 11

Circle the group that has more.

Circle the number that is greater.

4. Count and write how many.



15 12

Circle the group that has fewer.

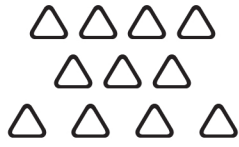
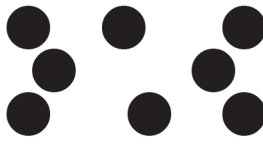
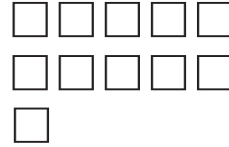
Circle the number that is less.

Name _____




Date _____

Count and write the number. Circle the two sets that are equal.

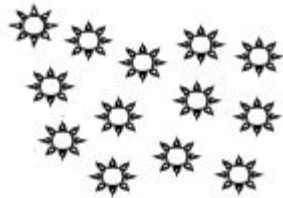
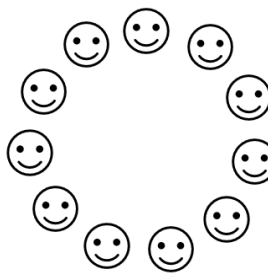
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2.

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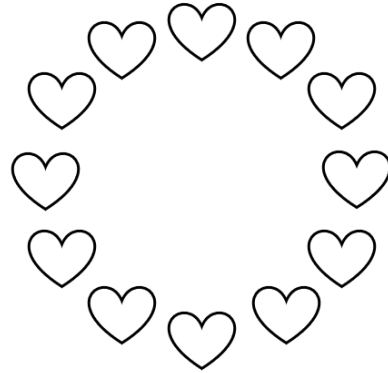
3. Count and write how many.

	
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Circle the group that has more.
 Circle the number that is greater.



4. Count and write how many.



Circle the group that has fewer.

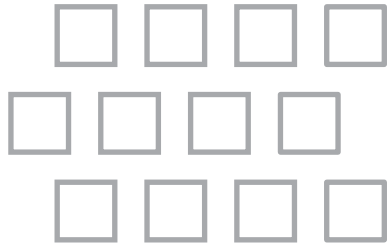
Circle the number that is less.

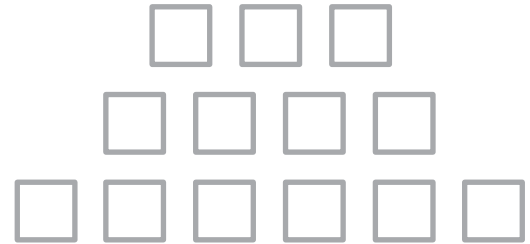


Name _____

Date _____

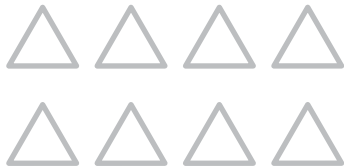
1. Count and write how many.

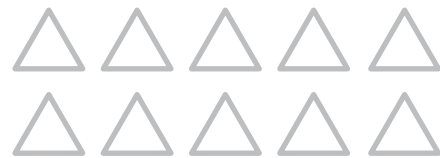




Circle the group that has more.
 Circle the number that is greater.

3. Count and write how many.





Circle the group that has fewer.
 Circle the number that is less.

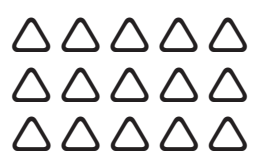
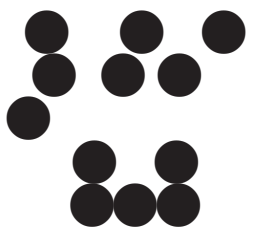
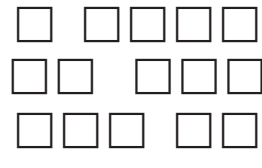


Name _____



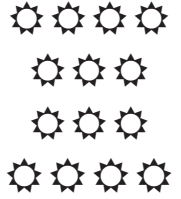
Date _____

Count and write the number. Circle the two sets that are equal.

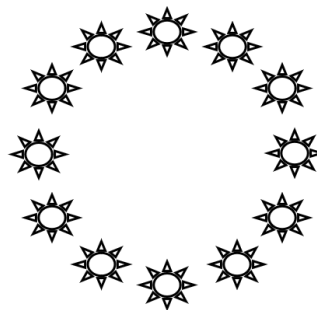
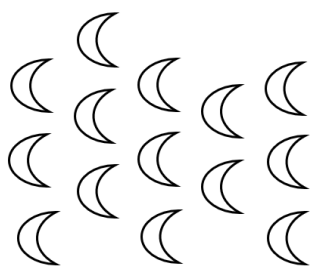
1.

 _____	 _____	 _____
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2.

 _____	 _____	 _____
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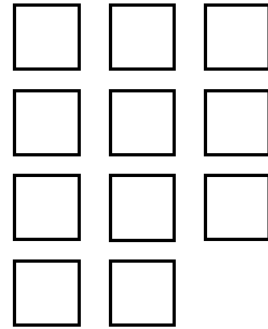
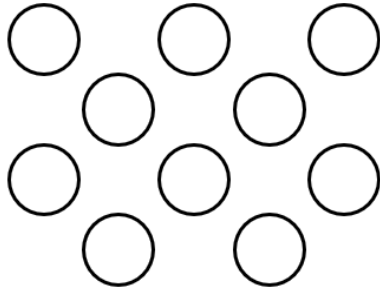
3. Count and write how many.



Circle the group that has more.
 Circle the number that is greater.



4. Count and write how many.



Circle the group that has fewer.

Circle the number that is less.



more than
greater than
less than
fewer than
equal to
same amount as

comparison words chart

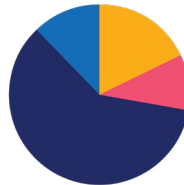


Lesson 16

Objective: Generate sets that are *more than*, *less than*, or *equal to* a given number.

Suggested Lesson Structure

■ Fluency Practice	(9 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(30 minutes)
■ Student Debrief	(6 minutes)
Total Time	(50 minutes)



Fluency Practice (9 minutes)

- Count the Say Ten Way **K.2A, K.5A** (3 minutes)
- Place value cards for Teen Numbers **K.5A** (3 minutes)
- Counting Teens **K.2C, K.2D** (3 minutes)

Count the Say Ten Way (3 minutes)

Note: Counting up and down prepares students to count and answer “how many?” questions accurately in the Concept Development.

T: Let’s count the Say Ten way.

Guide students to count forward and backward between 10 and 20.

Place Value Cards for Teen Numbers (3 minutes)

Materials: (T) Large place value cards (Lesson 6 Template 1)

Note: This activity reminds students that the 1 in teen numbers refers to 10 ones, preparing them for answering “how many?” questions in writing.

T: (Hold the 10 card and 7 card so that it appears as 17.) Say the number.

S: 17.

T: Say the number the Say Ten way.

S: Ten 7.

Break apart the cards into 10 and 7. Repeat the process for other teen numbers.



Counting Teens (3 minutes)

Materials: (S) Counting teens (Fluency Template)

Note: Repeated experiences counting sets organized in a group of ten and some additional one helps students connect meaning between the sets and digits within corresponding numbers.

Have students count each set and record the matching number.

Application Problem (5 minutes)

Materials: (T) Comparison words chart (Template) (S) Set of 20 connecting cubes

Have students build a tower of 1–20 connecting cubes. Once finished, have each student find a partner. Read the comparison language from the chart to students. Then have partners compare their towers of linking cubes by using the comparison language from the chart.

Repeat the activity as time permits, allowing students to pair with new partners each time.

Note: This Application Problem serves as review from yesterday’s lesson in which students learned they could compare two sets by lining them up or by counting.

Concept Development (30 minutes)

Prior to the lesson, prepare bags containing 20 small objects or manipulatives.

Materials: (T) 20 small objects (i.e., linking cubes), comparison words chart (Template 1), number path to 20 (Template 2) (S) Bag of 20 objects, white board

T: (Read the comparison words chart (Template) aloud.)

T: (Display a set of 10 objects and another set of 14 objects in straight rows next to each other.) Talk with a partner. Use the words from our comparison words chart.

S: The set of blue cubes has more than the set of red cubes. → There are fewer red cubes than blue cubes.

T: How did you know which set has more?

S: I counted each set. → They’re lined up next to each other, so I looked for the longer row.

T: (Label each set with a number.) How can we use the numbers to find out which set has fewer cubes?

S: 10 comes before 14 when we count. → 10 is smaller than 14.

T: Yes, we can say 10 is less than 14.

T: Today, we are going to try something different. Instead of me giving you two sets to compare, I am going to build the first set. Then, you will build the second set.

T: (Display a set of 16 objects. Arrange the objects in rows of 5 so students can quickly determine the total number.) How many objects are in my set?

- S: 16.
- T: Write the number 16.
- T: Build a set that has *fewer than* my set. (Provide wait time.) How many cubes are in your set?
- S: (Students' responses vary.) $15 \rightarrow 12 \rightarrow 3$.
- T: Write the number of cubes in your set next to the 16.
- T: How is it possible that we have so many different answers? Are they all correct?
- S: Any number smaller than 16 is correct.
- T: *Fewer than* and *less than* mean smaller than. (Display a number path to 20.) Any number from 0 to 15 on the number path is a correct answer.
- T: Erase the number of cubes in your set but keep the 16.
- T: Amaya has 13 cubes. Write the number 13 next to the 16. Use the words *fewer than* to compare Amaya's cubes and my cubes.
- S: 13 cubes is fewer than 16 cubes. \rightarrow Amaya has fewer cubes.
- T: Use the words *less than* to compare the numbers 13 and 16.
- S: 13 is less than 16.
- T: Erase the number 13 but keep the 16.
- T: Now, build a set that has *more than* my set. (Provide wait time.) How many cubes are in your set?
- S: (Students' responses vary.) $17 \rightarrow 18 \rightarrow 19 \rightarrow 20$.
- T: Write the number of cubes in your set next to the 16.
- T: How is it possible that we have so many different answers? Are they all correct?
- S: Any number bigger than 16 is correct.
- T: *More than* and *greater than* mean bigger than. (Display a number path to 20.) Any number from 17 to 20 on the number path is a correct answer.
- T: Erase the number of cubes in your set but keep the 16.
- T: Now, build a set that is equal to my set. (Provide wait time.) How many cubes are in your set?
- S: 16.
- T: Write the number of cubes in your set next to the 16.
- T: Why is there only one answer this time?
- S: *Equal* means the same amount. We must have the exact same amount as you.
- T: How can you check to make sure you have the same amount as me?
- S: We can count to make sure each set has 16. \rightarrow We can line up the sets to make sure they are the same length.



**NOTES ON
MULTIPLE MEANS
OF ACTION AND
EXPRESSION:**

Fewer is used when discussing sets of objects (e.g., apples, fingers, cubes). *Less* is used when discussing numbers (e.g., I have 4. 1 less is 3.). It is important to model correct language, with the understanding that students are likely to use *less* because of its colloquial usage. Through repeated exposure to both terms, students may adopt *fewer* and use it interchangeably with *less* but should not be expected to make the distinction between the two.

Repeat this activity several times by using sets of objects between 1 and 20. Prompt students to make comparison statements about the sets of objects.



Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Distribute the Problem Set to students. Have students apply their knowledge of comparison words to draw sets that are more than, fewer than, or equal to other sets.

Student Debrief (6 minutes)

Lesson Objective: Generate sets that are *more than*, *less than*, or *equal to* a given number.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.


- Share your work with a partner. Which answers were the same? Which answers were different?
- Is it possible for you and your partner to have two different answers, yet both be correct? Why?
- What are some strategies for comparing sets of objects?
- How did our Application Problem relate to today’s Problem Set?

Exit Ticket (5 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students’ understanding of the concepts that were presented in today’s lesson and planning more effectively for future lessons. The questions may be read aloud to the students.


Name Pam Date _____

1. Count the squares.




There are 15 squares.

Draw a set of circles that has more than the set of squares.




2. Count the happy faces.





There are 13 happy faces.

Draw a set of lines that has fewer than the set of happy faces.



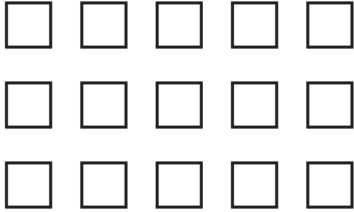
3. Count each set. Draw more shapes so both sets are equal.

Name _____

Date _____

1. Count the squares.



There are _____ squares.

Draw a set of circles that has more than the set of squares.

2. Count the happy faces.



There are _____ happy faces.

Draw a set of lines that has fewer than the set of happy faces.



3. Count each set. Draw more shapes so both sets are equal.



Name _____

Date _____

1. Count the stars.



There are _____ stars.

2. Draw a set of triangles that
has more than the set of stars.3. Draw a set of circles that is
fewer than the set of stars.

There are _____ triangles.

There are _____ circles.



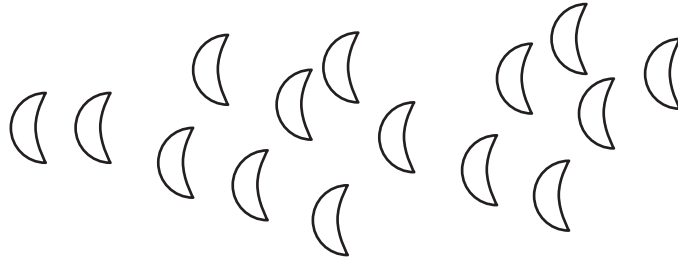
4. Draw a set of squares that is equal to the set of stars.

There are _____ squares.

Name _____

Date _____

1. Count the moons.



There are _____ moons.

2. Draw a set of lines that has fewer than the set of moons.

3. Draw a set of dots that has more than the set of moons.

There are _____ lines.

There are _____ dots.



4. Draw a set of circles that is equal to the set of moons.

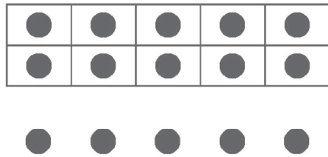
There are _____ circles.

Name _____

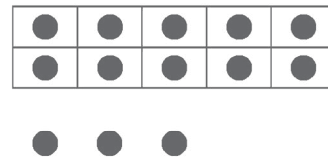
Date _____

Count the circles in each set and write the number.

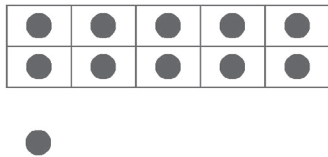
There are _____ circles.



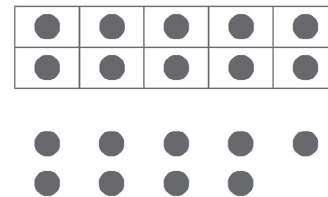
There are _____ circles.



There are _____ circles.



There are _____ circles.



counting teens



more than
greater than
less than
fewer than
equal to
same amount as

comparison words chart



1	2	3	4	5	
6	7	8	9	10	
11	12	13	14	15	
16	17	18	19	20	

number path





Topic D

Extend the Say Ten and Regular Count Sequence to 100

K.5A, K.2B, K.2D, K.2E, K.2F

Focus Standard:	K.5A	Recite numbers up to at least 100 by ones and tens beginning with any given number.
Instructional Days:	5	
Coherence -Links from:	GK–M1	Numbers to 10
-Links to:	G1–M2	Introduction to Place Value Through Addition and Subtraction Within 20

Topic D leads students beyond teen numbers up to 100 (**K.5A**). They begin by counting up and down to 100 both the regular way (ten, twenty, thirty, ...) and the Say Ten way (ten, 2 tens, 3 tens, ...). In Lessons 18 to 20, their work from 11 to 19 sets the foundation for success as they realize the number sequence of 1–9 is repeated over and over again within each decade as they count to 100. Students begin by counting within and then across decades (e.g., 28, 29, 30, 31, 32) (**K.5A**). Students also write some of the numbers ranging from 21 to 100 in Lessons 17 to 19, which goes beyond the Kindergarten standard to the Grade 1 standard **1.2C**. Writing numerals 21 to 100 is included here because of the wider range of activities they make possible; but is not assessed. This extension into Grade 1 content serves as enrichment for students.



A Teaching Sequence Toward Proficiency with Extending the Say Ten and Regular Count Sequence to 100

Objective 1: Count up and down by tens starting with any multiple of ten within 100.
(Lesson 17)

Objective 2: Count within tens by ones.
(Lesson 18)

Objective 3: Count across tens when counting by ones through 40.
(Lesson 19)

Objective 4: Count across tens by ones to 100 with and without objects.
(Lesson 20)

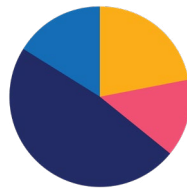


Lesson 17

Objective: Count up and down by tens starting with any multiple of ten within 100.

Suggested Lesson Structure

■ Fluency Practice	(11 minutes)
■ Application Problem	(7 minutes)
■ Concept Development	(24 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (11 minutes)

- Write Teen Numbers with Circular Configurations **K.2B, K.2D** (3 minutes)
- Teen Circular-Counting **K.2C** (5 minutes)
- Place value cards for Teen Numbers **K.2B, K.5A** (3 minutes)

Write Teen Numbers with Circular Configurations (3 minutes)

Materials: (T) Pre-drawn circular configurations (S) Personal white board

Note: Now that counting teen numbers in circular configurations has been introduced, the goal is to develop accuracy. Encourage students to select a starting point they can remember, so they know when to stop.

- T: (Project 13 stars in a circular configuration.) On your personal white board, write the number of stars that you see.
- S: (Students write 13.)
- T: Say the number the Say Ten way.
- S: Ten 3.
- T: Say the number the regular way.
- S: 13.

Repeat the process for 3 or 4 other teen numbers.

Teen Circular-Counting (5 minutes)

Materials: (S) Teen circular-counting (Fluency Template)

Note: This activity is a step up in complexity from the previous one, because students are counting out a set instead of counting an existing set. Whisper counting and marking the starting point facilitates accuracy in counting teen numbers in a circular configuration.

After distributing teen circular-counting, have students say each number the regular way and the Say Ten way. Then, have students whisper count as they draw more shapes to match the number indicated.

Place Value Cards for Teen Numbers (3 minutes)

Materials: (T) Large place value cards (Lesson 6 Template 1)

Note: This activity reinforces the grade level standard requiring students to understand that teen numbers are composed of ten ones and some additional ones.

T: (Place the 7 card on the 10 card to show 17.) Say the number.

S: 17.

T: Say the number the Say Ten way.

S: Ten 7.

Break apart the cards into 10 and 7.

Repeat this process for additional teen numbers.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

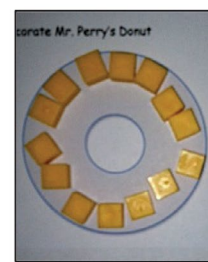
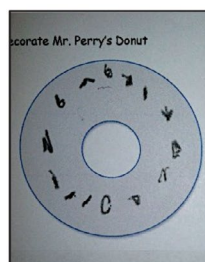
Scaffold the Application Problem for students who need more support, including some emergent bilingual students. Give them sentence starters to help them express how they tackled the challenge. For example, "I put _____ dots of chocolate on the donut."

Application Problem (7 minutes)

Materials: (S) Donuts (Template 1), 14 cubes

Mr. Perry is decorating donuts. He puts 14 little dots of chocolate in rows. Show him an idea about how to put the 14 dots in a circle on his donut. Use the cubes first, and then draw the chocolate dots on his donut. Show the total number of dots of chocolate with a number bond and the place value cards.

Note: This problem serves as an opportunity for students to apply their recent work with organizing and counting objects in linear and circular configurations. Using place value cards supports the understanding of 14 as ten ones and 4 ones.



Concept Development (24 minutes)

Materials: (T) 100-bead Rekenrek (S) Set of 10 small 10-frame cards (Template 2)

- T: (Invite students to the carpet and display the Rekenrek.) Count the beads as I move them. (Slide each bead from right to left.)
- S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
- T: How many beads are in this row?
- S: 10.
- T: (Point to the beads in the second row.) How many beads are in this row?
- S: 10.
- T: How can you tell there are ten beads?
- S: I see 5 red beads and 5 white beads, and 5 and 5 is 10. → It looks just like the first row.
- T: So, each row has how many beads?
- S: 10.
- T: Let's count all the beads. Should we count by ones or by tens? Which way is faster?
- S: By tens!
- T: Let's count by tens. (Slide each row from right to left as students count.)
- S: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.
- T: Now, let's count back. (From the bottom, sliding each row from left to right.)
- S: 100, 90, 80, 70, 60, 50, 40, 30, 20, 10.

Repeat the process, beginning with 20 beads and counting up by tens. Stop at 80 beads, then count back down by tens.

Have students return to their seats.

- T: Lay your 10-frame cards out at the top of your table.
- T: Let's count them the Say Ten way.
- S: Ten, 2 tens, 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens, 9 tens, 10 tens.
- T: And now count them the regular way.
- S: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.
- T: I will say a number the Say Ten way. Show that many cards in front of you.
- T: 3 tens.
- S: (Show 3 cards.)



**NOTES ON
MULTIPLE MEANS
OF ACTION AND
EXPRESSION:**

Scaffold the lesson for students who need more proficiency practice by having them work in a small group with the Rekenrek. Lead them in counting the Say Ten way while they move the row of beads.



**NOTES ON
MULTIPLE MEANS
OF ENGAGEMENT:**

Challenge students who have demonstrated proficiency by placing the ten card and two ones on the table. Have them count by tens starting with twelve (12, 22, 32, 42, 52, and so on).



- T: Start at 30 and count up by tens. Show another card each time you say a number.
 S: 30, ..., 40, 50, 60, 70, 80, 90, 100.
 T: How many total dots do you see on the cards you showed?
 S: 100.
 T: Now, slide each card back to the top of your table, and count down by tens as you do so.
 S: 100, 90, 80, 70, 60, 50, 40, 30, 20, 10, 0.
 T: Here's a new number: 4 tens.
 S: (Show 4 cards.)
 T: Start at 40 and count up by tens. Each time you say a number, show another card. This time, we will stop at 90.
 S: 40, 50, 60, 70, 80, 90.
 T: How many total dots are showing on the cards you showed?
 S: 90.
 T: Slide each card up and count down by tens as you go.
 S: 90, 80, 70, 60, 50, 40, 30, 20, 10, 0.

Repeat with the other multiples of ten.

Problem Set (6 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Note: This Problem Set asks students to write numbers greater than 20, which is a Grade 1 standard (1.2C). If students are not ready for this step, consider having them use numeral cards or simply tell the amount pictured.

After completing the Problem Set, have students fold the first page after 50 to see and analyze the “stairs” as one more ten is placed on each row. While students work, encourage them to count both in the regular way and the Say Ten way.

Name Nate Date _____

Count up by tens and write the numbers.

●●●●	10
●●●● ●●●●	20
●●●● ●●●● ●●●●	30
●●●● ●●●● ●●●● ●●●●	40
●●●● ●●●● ●●●● ●●●● ●●●●	50
●●●●	60
●●●● ●●●● ●●●● ●●●● ●●●● ●●●●	70
●●●● ●●●●	80
●●●● ●●●● ●●●● ●●●● ●●●● ●●●●	90
●●●● ●●●● ●●●● ●●●● ●●●● ●●●● ●●●●	100



Student Debrief (8 minutes)

Lesson Objective: Count up and down by tens starting with any multiple of ten within 100.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class, taking turns reading the numbers forward and back. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

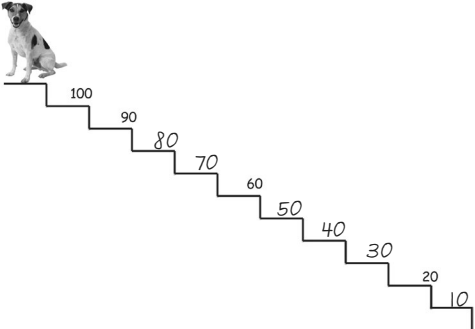
Any combination of the questions below may be used to lead the discussion.

- How would the picture of the stairs be different if you were counting by ones?
- What kinds of things could we count by tens?
- When might we count up by tens?
- When might we count down by tens?
- What tools can we use if we get stuck counting up or down by tens?
- Practice more counting on the Rekenrek.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Help the puppy down the stairs! Count down by tens. Write the numbers.



Count up by tens and write the numbers you say.
Use 10-frames to help as you count.

20 30 40 50 60 70 80

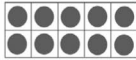
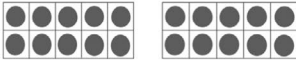
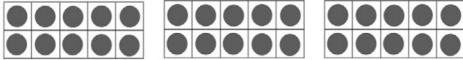


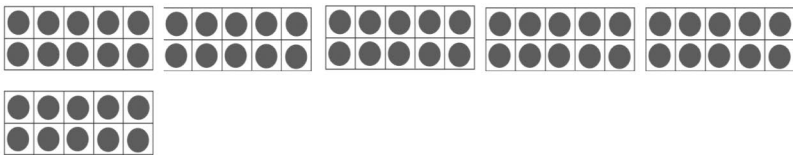
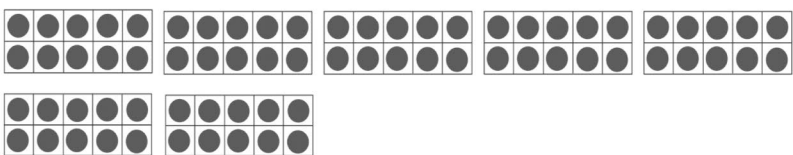
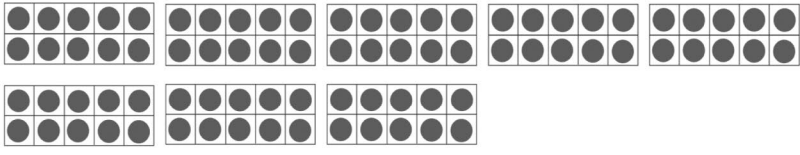
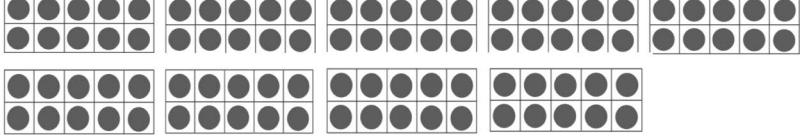
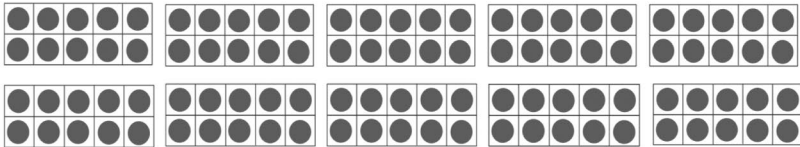
Count down by tens and write the numbers you say.
Use 10-frames to help as you count.

90 80 70 60 50 40 30

Name _____

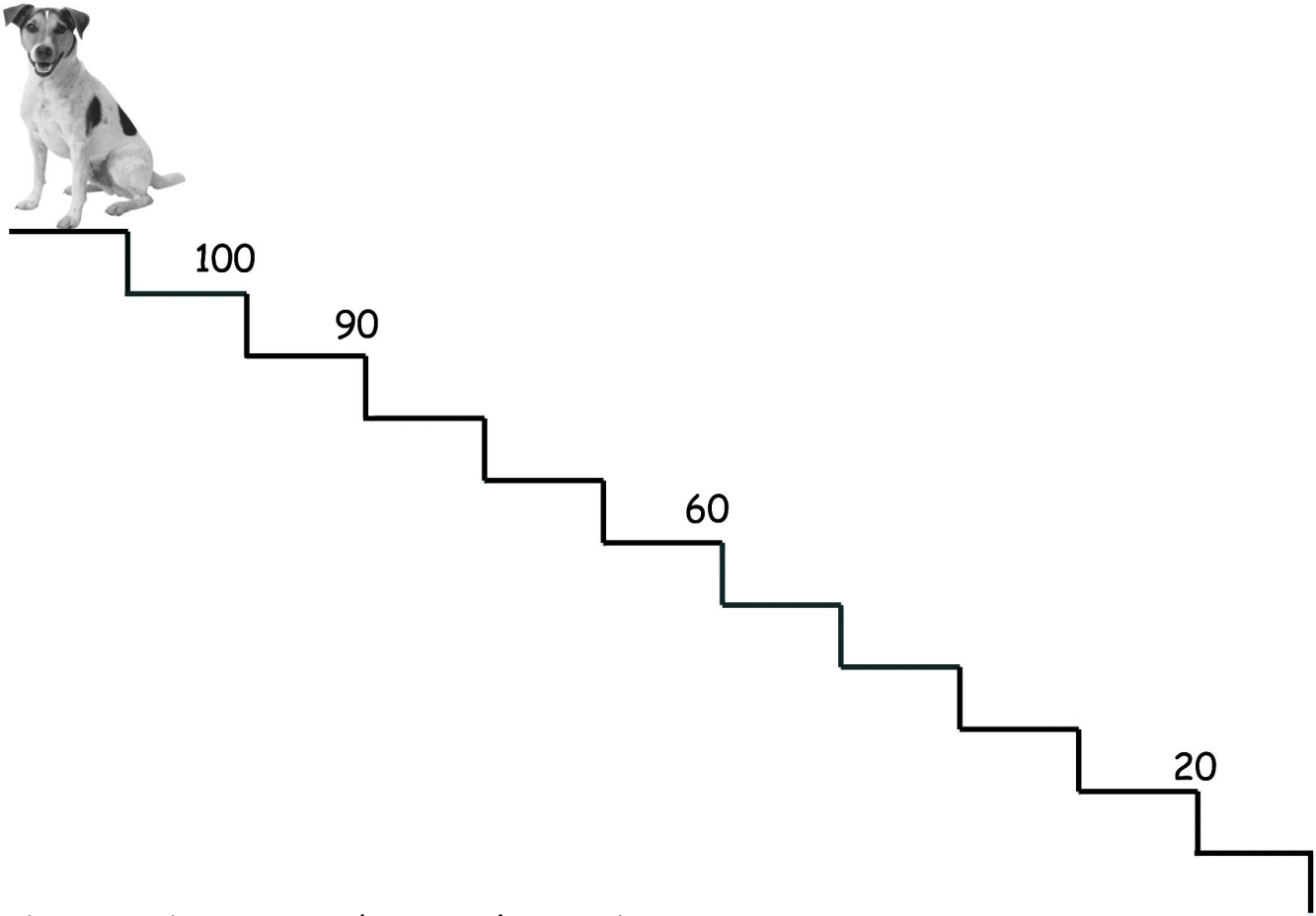
Date _____

Count up by tens and write the numbers.

	10
	20
	
	
	50
	
	
	
	
	



Help the puppy down the stairs! Count down by tens. Write the numbers.



Count up by tens and write the numbers you say.
Use 10-frames to help as you count.

20 _____ 80

Count down by tens and write the numbers you say.
Use 10-frames to help as you count.

90 _____ 30

Name _____

Date _____

Count up by tens and write the numbers you say.

Use 10-frames to help as you count.

40 _____ 100

30 _____ 90

Count down by tens and write the numbers you say.

Use 10-frames to help as you count.

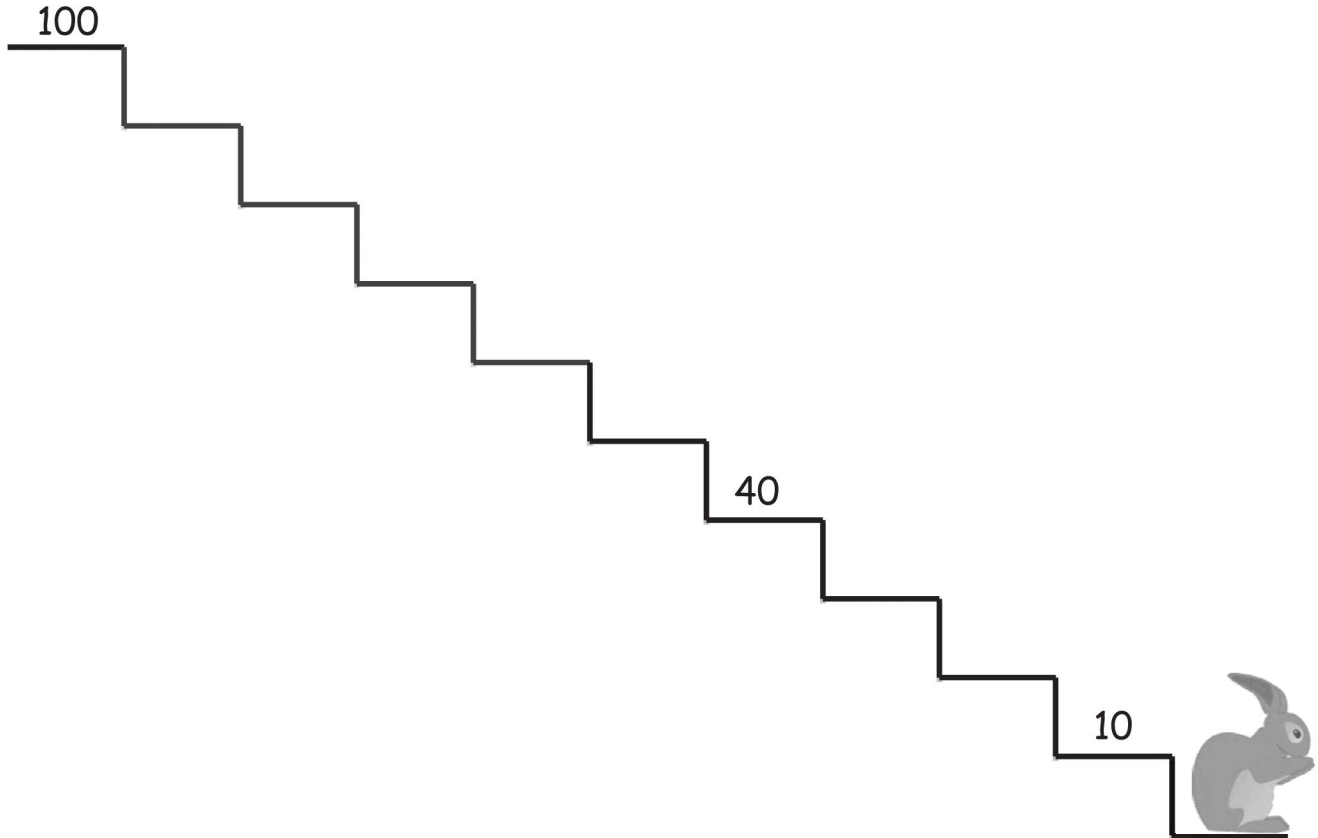
100 _____ 40

70 _____ 10



Name _____ Date _____

Count down by 10 and write the number on top of each stair.



Name _____

Date _____

Count up by tens and write the numbers you say.

Use 10-frames to help as you count.

10 _____ 70

Count down by tens and write the numbers you say.

Use 10-frames to help as you count.

80 _____ 20

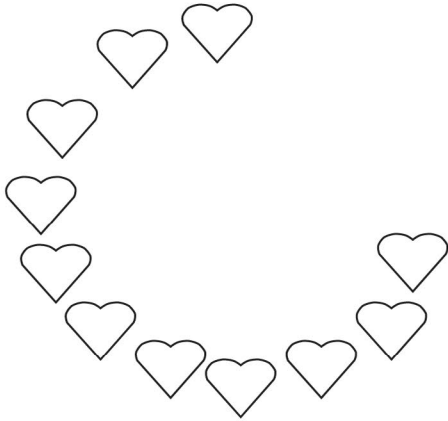


Name _____

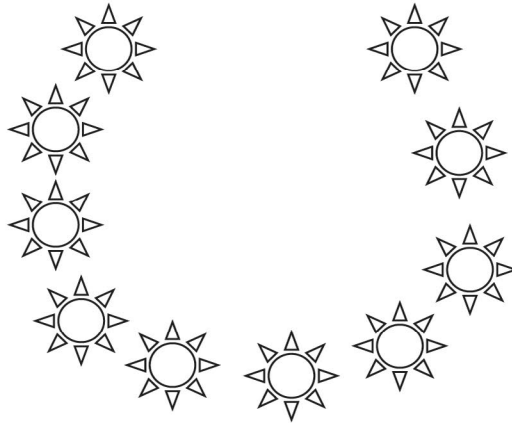
Date _____

Whisper count and draw in more shapes to match the number.

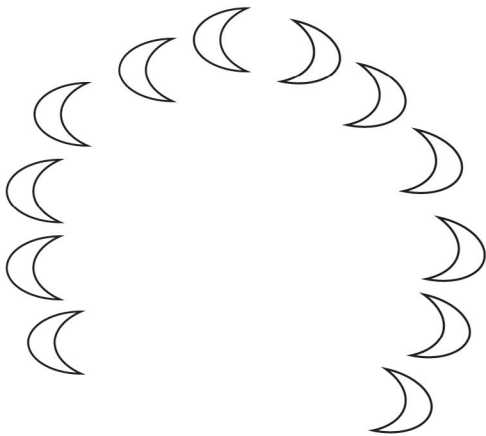
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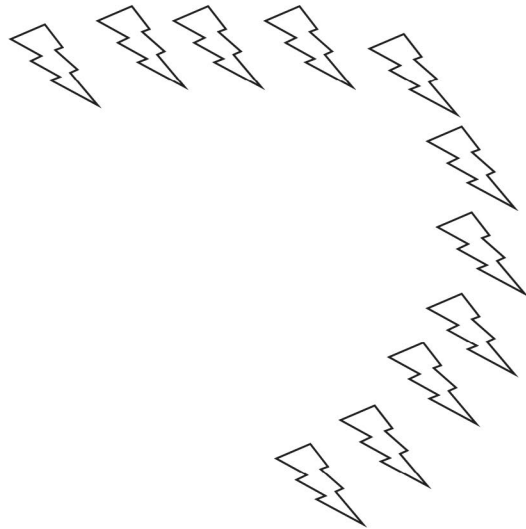
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15



17

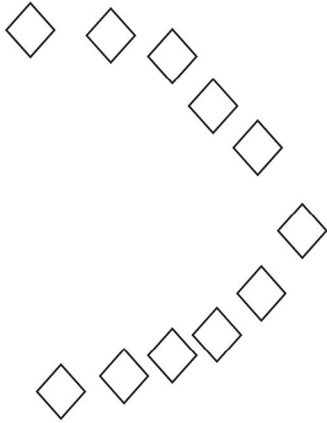


teen circular-counting

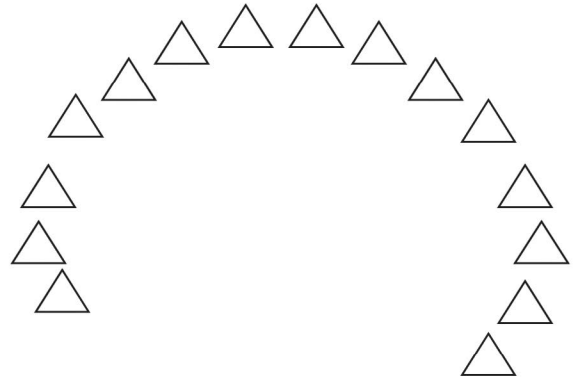


Whisper count and draw in more shapes to match the number.

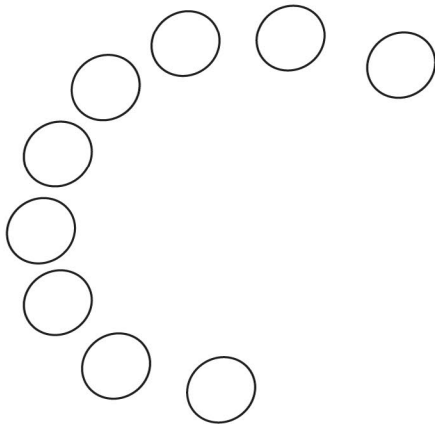
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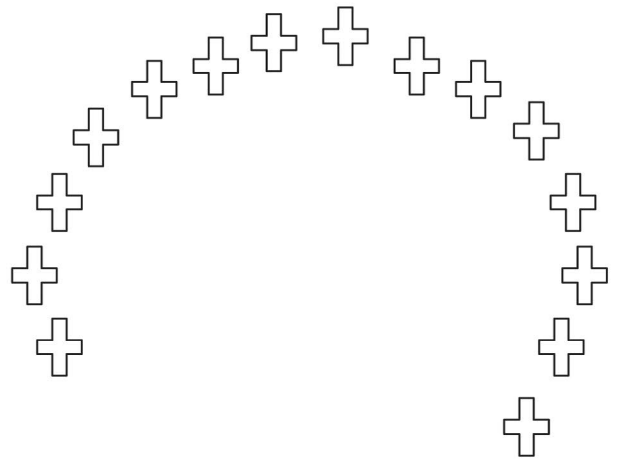
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13

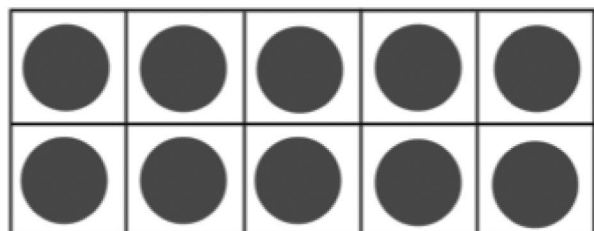
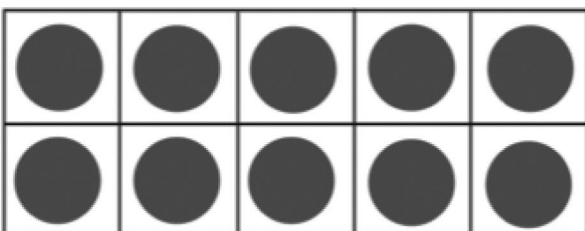
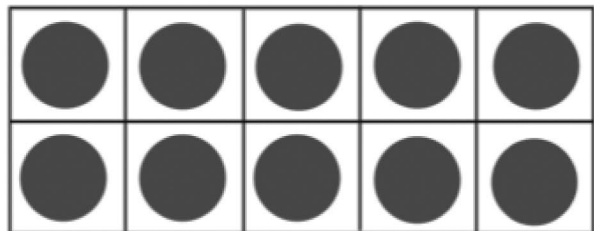
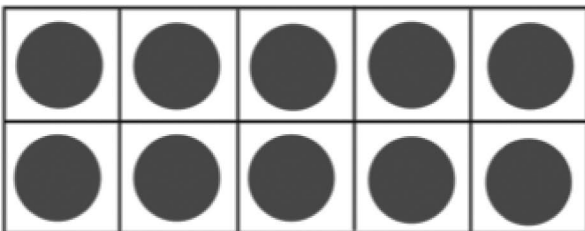
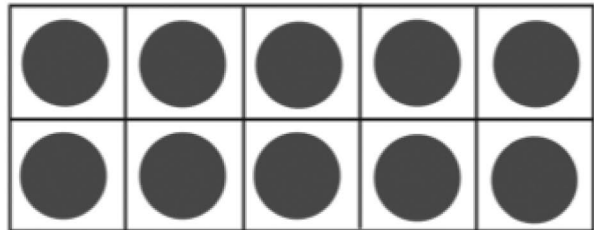
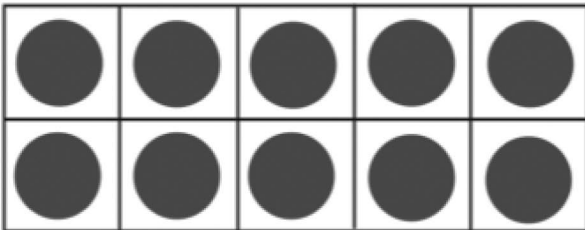
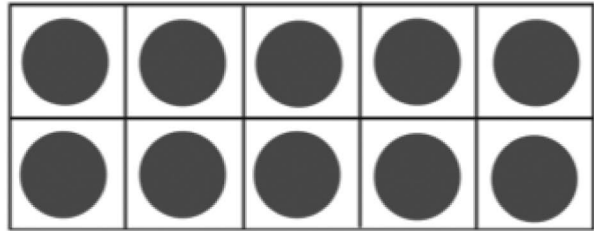
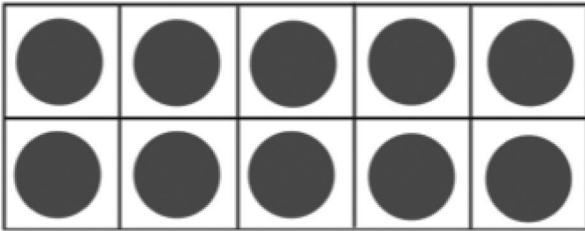
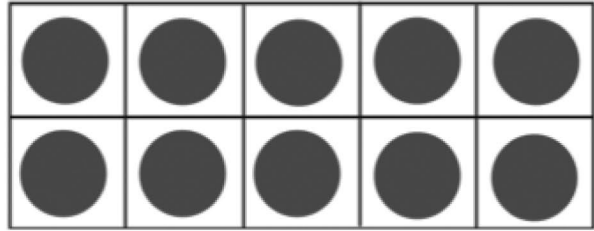
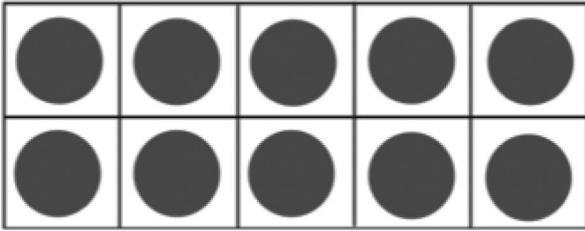


20



teen circular-counting





small 10-frame cards

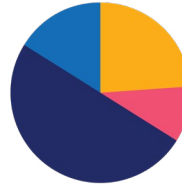


Lesson 18

Objective: Count within tens by ones.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(25 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- Place value cards for Teen Numbers **K.2C, K.2E** (7 minutes)
- Count by Tens the Say Ten Way **K.5A** (2 minutes)
- Count with 10-frame Cards **K.5A** (3 minutes)

Place Value Cards for Teen Numbers (7 minutes)

Materials: (S) place value cards: 1 place value 10 card (Lesson 6 Template 2) and 5-group cards 1–9 (Lesson 1 Fluency Template 2), interesting counters

Note: This activity provides practice with counting out 11–20 objects. Circulate around the classroom as students work, and observe how they organize their objects as they count. For students who need more support with counting accurately, consider suggesting they count out a pile of ten first, before counting out the additional ones. Some students might benefit from arranging their objects in a 5-group formation to match the cards.

Give each pair of students a set of place value cards, and have them place the number 10 in the middle. One partner gets 4 of the cards numbered 1–9, and the other partner gets the remaining 5 cards. The player with 5 cards puts one of his cards down on the ten. The other partner counts out that many interesting counters (shells, rocks, pennies). They then reverse roles.

Count by Tens the Say Ten Way (2 minutes)

Materials: (T) 100-bead Rekenrek

Note: This activity allows students to see the rows of ten increase and decrease as they count the Say Ten way.

T: (Show 10 on the Rekenrek.) Say the number you see.



S: Ten.

T: (Show 2 tens on the Rekenrek.) Say the number the Say Ten way.

S: 2 tens.

Work toward 100 and back to zero, occasionally changing direction.

Count with 10-frame Cards (3 minutes)

Materials: (S) Small 10-frame cards (Lesson 17 Template 2)

Note: This activity provides a visual representation that each ten is composed of ten ones. Students make the connection between pictorial and abstract numbers as they count the Say Ten way.

T: Place a 10-frame card in front of you.

S: (Students place a 10-frame card in front of them.)

T: Say the number.

S: Ten.

T: Place another 10-frame card in front of you.

S: (Students place a second 10-frame card in front of them.)

T: Say the number the Say Ten way.

S: 2 tens.

Continue with this possible sequence: 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens, 9 tens, and 10 tens.

Application Problem (5 minutes)

Materials: (S) 2-hand cards (Template)

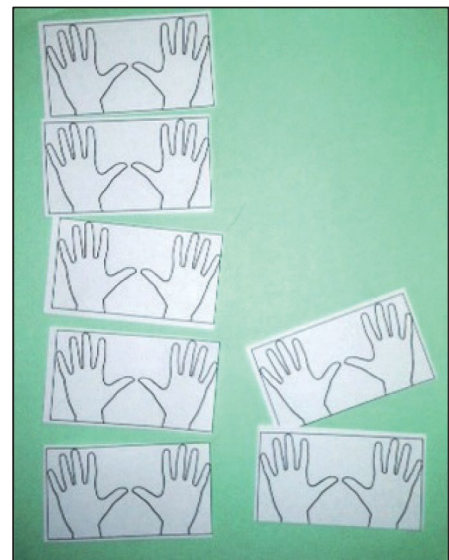
Some students are making handprints. 7 students are putting their handprints on a poster board. How many fingers will show on the poster? Use the 2-hand cards to help find out.

Note: This Application Problem is designed to help students make the natural connection between tens and their fingers. Please make adjustments to meet physical needs of individual students.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Let students who have demonstrated proficiency work independently or at a center in a small group. Give them many 10-frame cards since they may be able to go far beyond the rest of the class.



Concept Development (25 minutes)

Materials: (T) 10 pieces of tagboard (S) Small 10-frame cards (Lesson 15 Template 2), 9 counters

Demonstrate the following before having students do it with a partner:

Students count up from 0 to 9 as they place counters on their table in vertical 5-groups. When done, have them raise their hands to receive a 10-frame. They remove the nine counters the moment they are given the 10-frame. They then count from 10 to 19 while placing counters on the table as before. Then, hand them a new 10-frame as they remove the 9 counters, and have them count from 20 to 29 while placing the counters down. Do not mention trading or regrouping. For now, just tell the students that when they have counted to 29—or 39 or 49 or 59, etc.—to clear off all the ones, and they are given a new card of 10 ones. Show students how what they know about counting to 9 will help them count much larger numbers! The Say Ten way really shows that correlation.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students, including some emergent bilingual students, may need support with Say Ten counting. Alternate between Say Ten counting and regular counting. When the students are using their 10-frames and counters, have them whisper count. Puppets can help diffuse performance anxiety. One partner places the counters while the other partner controls the puppet, which counts.



Group Activity:

- T: (Create a path by laying the pieces of tagboard across the floor like stepping stones. Have fun creating a story with students about what is at the end of the path.) There's a magic pot at the end of this path, and if you can reach it, you can wish for anything you want! But to get there, you have to count in order from 30 to 39, or 40 to 49, or 50 to ...?
- S: 59.
- T: From 60 to ...?
- S: 69.
- T: Who would like to try to reach the magic pot? We'll help you count so you can get there.
- T: (Choose a student, and then write 30 on the board.) Let's help Miles count, starting at 30.
- S: (As student steps on each "stone.") 30, 31, 32, 33, 34, 35, 36, 37, 38, 39.
- T: He made it! What did you wish for? (Allow a quick response.)
- T: Who would like to go next?
- T: (Choose another student, and then write 50 on the board.) Let's help Victoria get to the magic pot!
- S: 50, 51, 52, 53, 54, 55, 56, 57, 58, 59.
- T: Victoria made it to the pot! What did you wish for?



Give 2 to 3 students a chance to walk the path to the magic pot, changing the start number each time to a larger number. Students count chorally and get excited by counting to larger numbers.

Afterward, remove 5 stepping stones. Start counting to the magic pot from 35 to 39, 45 to 49, and 75 to 79. Next, put 2 stepping stones back, and start counting to the pot from 23, 53, 83, and 93. Again, only count up to the number with nine in the ones place. Students will be blurting out and wanting to say the multiple of ten, but if they do, it means they cannot get to the magic pot! This creates suspense and enhances students' desire to know those numbers, which are covered in Lesson 20.

Problem Set (5 minutes)

Now that students have worked with the numbers orally and with concrete materials, on the Problem Set they model mathematics with the abstract number.

Students should do their personal best to complete the Problem Set within the allotted time.

Note: This Problem Set asks students to write numbers greater than 20, which is a Grade 1 standard (1.2C). If students are not ready for this step, consider having them use numeral cards or simply say the amount pictured.

Student Debrief (8 minutes)

Lesson Objective: Count within tens by ones.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner, taking turns reading the numbers forward and back. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at the numbers in the first row on your Problem Set. What is the same about the numbers? What is different?
- Use the Rekenrek to practice more counting within a sequence. Possibly count from 63 to 69, 72 to 79, and 84 to 89.

Name Xiomara Date _____

Count up or down by 1s. Help the animals get to their food.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name _____

Date _____

Count up or down by 1s. Help the animals get to their food.

20 22 24 26

40 44 46 48

92 98 99

Count up.



Count down.

63	64	<input type="text"/>	<input type="text"/>	<input type="text"/>
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66	<input type="text"/>	<input type="text"/>	<input type="text"/>
----	----------------------	----------------------	----------------------

Name _____

Date _____

Help the cow get to the barn by counting by 1s.

Help the boy get to his present. Count up by 1s. When you get to the top, count down by 1s.



Name _____

Date _____

Help the rabbit get his carrot. Count by 1s.

71 75

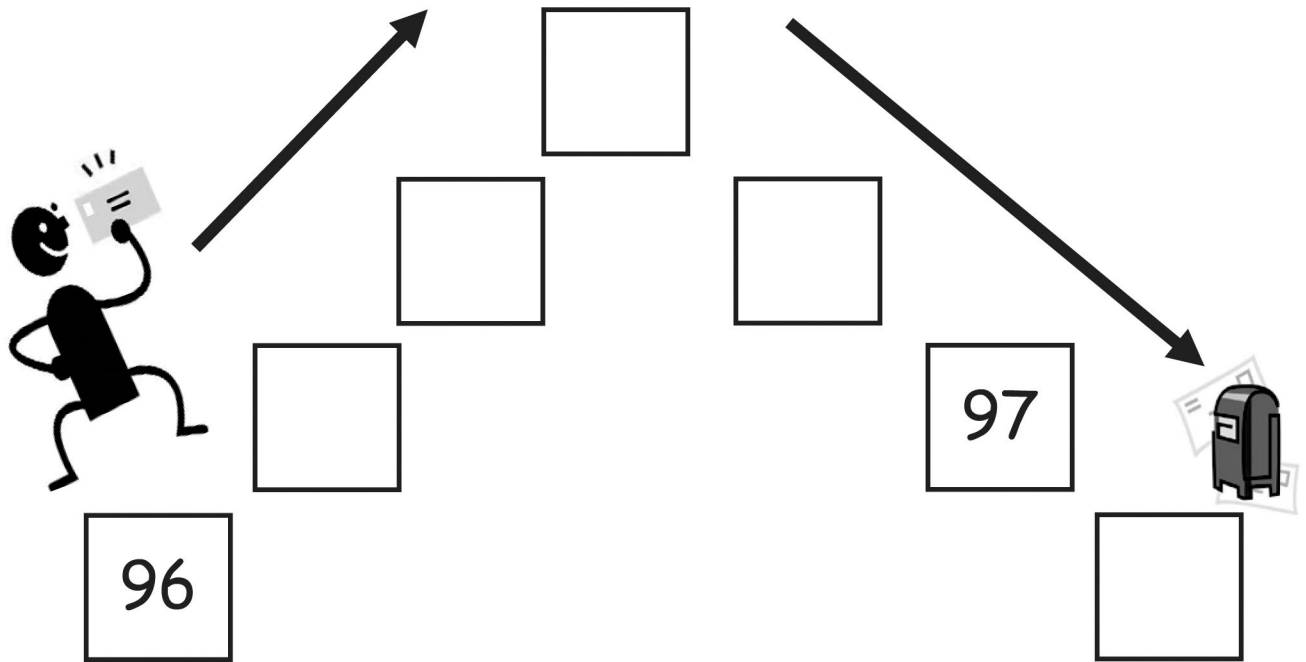
Count up by 1s, then down by 1s.

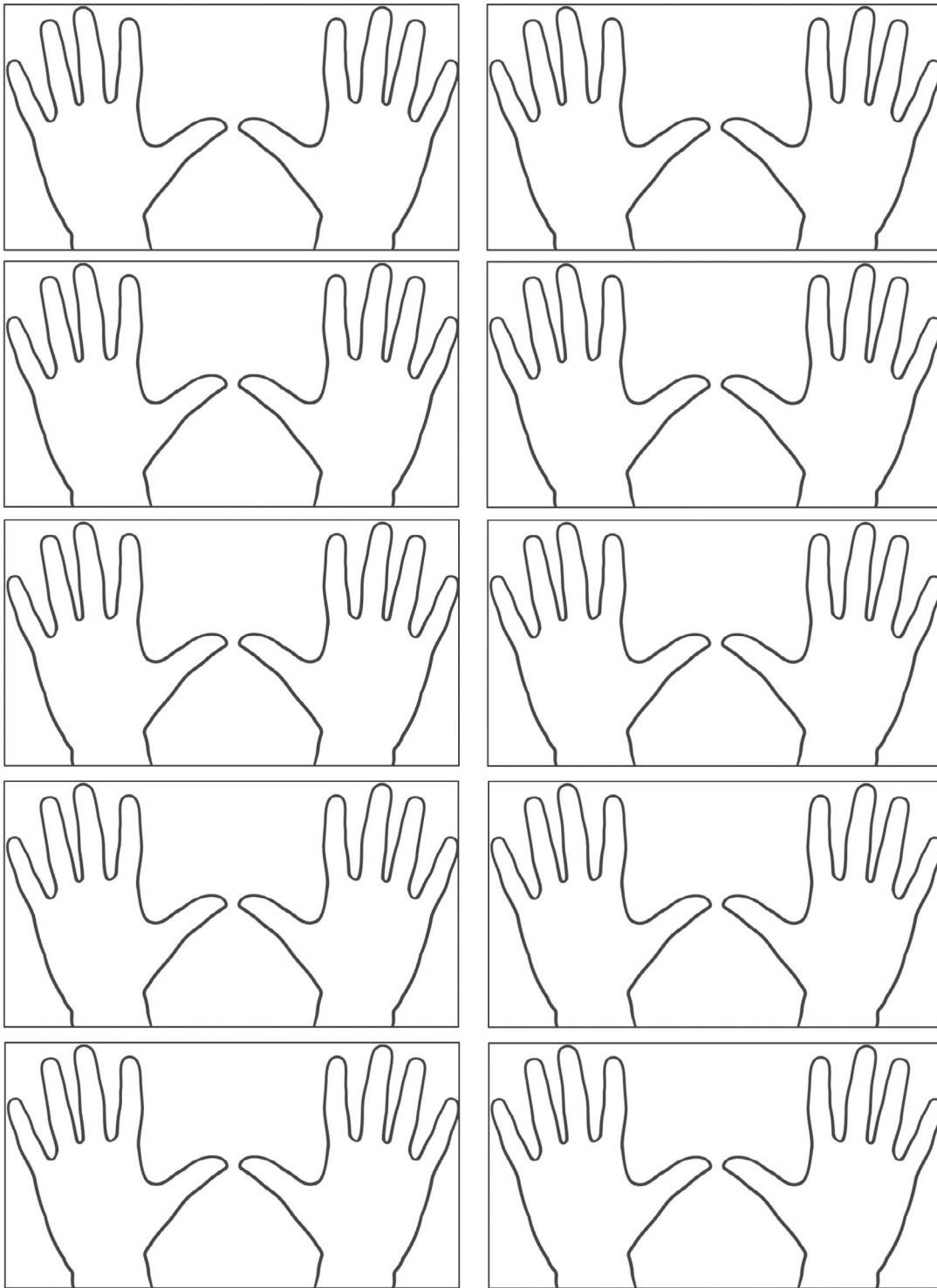
↑		89	↓
	84		

↑		35	↓
	30		



Help the boy mail his letter. Count up by 1s. When you get to the top, count down by 1s.





2-hand cards

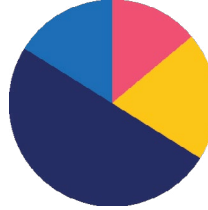


Lesson 19

Objective: Count across tens when counting by ones through 40.

Suggested Lesson Structure

■ Application Problem	(7 minutes)
■ Fluency Practice	(10 minutes)
■ Concept Development	(25 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Application Problem (7 minutes)

Sammy's mom has 10 apples in a bag. Some are red and some are green. What might be the number of each color apple in her bag? There is more than one possible answer. See how many different answers can be found. Show the answers with number bonds. Label the parts as R and G.



Note: In this lesson, the Application Problem precedes the Fluency Practice because the fluency activities lead directly into the counting of the lesson.

Fluency Practice (10 minutes)

- 5-Group Flashes: Partners to 5 **K.2I** (4 minutes)
- Count Out Teen Numbers **K.2C, K.2I** (4 minutes)
- Count Within Tens **K.5A** (2 minutes)

5-Group Flashes: Partners to 5 (4 minutes)

Materials: (T) Large 5-group cards (Lesson 1 Fluency Template 1)



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Challenge students who have demonstrated proficiency to model all nine possible solutions for the Application Problem and to explain both orally and in writing how all nine possibilities are a response to the same problem.



Note: Reviewing compositions of 5 leads to proficiency of addition and subtraction within 5.

T: (Show 4 dots.) How many dots do you see?

S: 4.

T: How many more to make 5?

S: 1.

T: Say the addition sentence.

S: $4 + 1 = 5$.

Continue with the following possible sequence: 1, 3, 2, 5, 0, 4, 2.

Count Out Teen Numbers (4 minutes)

Materials: (S) personal white board, 1 bag of about 20 objects (per pair)

Note: This activity provides students with concrete practice decomposing teen numbers into ten ones and some additional ones.

T: Count 13 items out of your bag.

T: Separate them into two parts—one part with 10 and another part. Write the number on your personal white board.

Repeat this process for four or five other amounts.

Count Within Tens (2 minutes)

T: Let's count starting at 20.

Note: This activity gives students practice counting by ones within the decades to prepare them to count across the decades in today's Concept Development.

Guide students, counting from 20 to 29, occasionally changing directions. Repeat for 50–59 and 80–89.

Concept Development (25 minutes)

Materials: (S) Personal Rekenrek (from Lesson 10)

T: Put your Rekenrek together with your partner's.

T: Move all your beads to the right-hand side.

T: Count your beads by ones. Partner A, move the first row. Both of you whisper each number as you move your beads from right to left.

S: (Moving beads with partner.) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

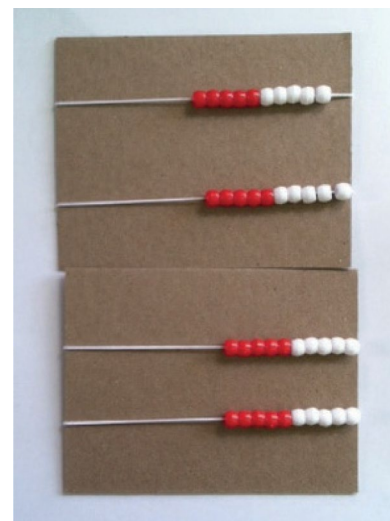
T: Say the number.

S: 10.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Use 5-Group Flashes with students, including some emergent bilingual students, to foster number sense and ability to speak about math. Review number words by counting the dots, if necessary. Tailor the sequence according to students' needs, repeating flashes when necessary.



- T: Partner B moves the beads of the second row one at a time. What is the first number we will say? Say it the Say Ten way.
- S: Ten 1.
- T: How do we say the number the regular way?
- S: 11.
- T: Count the second row starting with eleven. Move your beads one at a time, and whisper the numbers.
- S: (Moving the beads.) 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
- T: What is the number the Say Ten way?
- S: 2 tens.
- T: Now, it's Partner A's turn. Move one bead on the next row. What is the number the Say Ten way?
- S: 2 tens 1.
- T: Say it the regular way.
- S: 21.
- T: Keep counting the regular way.
- S: (Moving the beads.) 22, 23, 24, 25, 26, 27, 28, 29, 30.
- T: What is the number the Say Ten way?
- S: 3 tens.



**NOTES ON
MULTIPLE MEANS
OF ACTION AND
EXPRESSION:**

Counting with the Rekenrek is great for students needing more proficiency practice who will benefit from practicing one-to-one correspondence, the support of a peer, and the lesson's frequent checks for understanding. To avoid miscounting, encourage deliberate counting through song or rhythm.

Continue to 40 in this manner. Then, ask students to count to 40 on their own with their partner. To add excitement to this exercise, students can speak the last bead of each row loudly.

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Note: In this Problem Set, students write numbers to 100, which bridges to the Grade 1 standard, **1.2C**. The Kindergarten standard requires students to write numbers only to 20.

Name Traneica Date _____

Touch and count the dots from left to right starting at the arrow. Count to the puppy, and then keep counting to his bones and twin brother!

Count again and color the last dot of each row green. When you have finished, go back and see if you can remember your green numbers!

What number did you say when you touched the first puppy? 15

- The first bone? 21
- The second bone? 28
- His twin brother? 40



Student Debrief (8 minutes)

Lesson Objective: Count across tens when counting by ones through 40.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience. Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class, taking turns reading the numbers forward and back. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the suggestions below may be used to lead the discussion.

- Touch and count each series of numbers, pointing out that students read from left to right as they do when reading.
- Read each series of numbers in a different voice, like an elf, like a giant, like a witch, as a crescendo, etc. Adding drama makes the learning memorable and fun!
- Count across ten from various starting points using the Rekenrek.

Count each number by 1s. Write the number below when there is a box.

17 18 19 20 21 22

Touch and count the rocks from the cow to the grass!

26 27 28 29 30 31 32

Count up by 1s. Help the kitty play with her yarn!

31 32 33 34 35 36 37 38 39 40

Count down by 1s.

11 10 9 21 20 19 31 30

Exit Ticket (3 minutes)

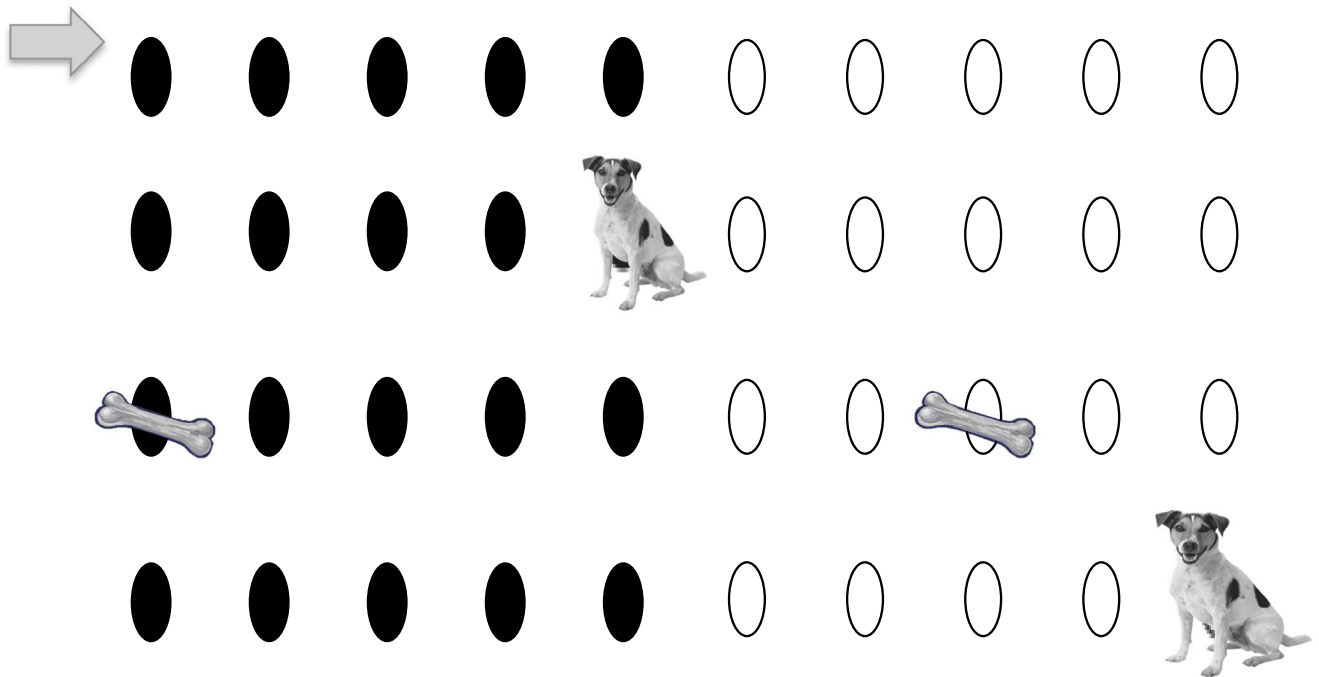
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name _____

Date _____

Touch and count the dots from left to right starting at the arrow. Count to the puppy, and then keep counting to his bones and twin brother!



Count again and color the last dot of each row green. When you have finished, go back and see if you can remember your green numbers!

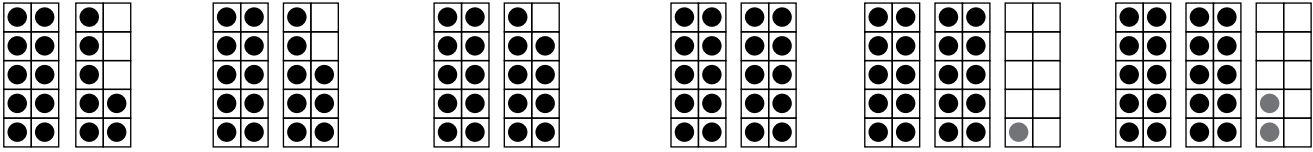
What number did you say when you touched the first puppy?

- The first bone?
- The second bone?
- His twin brother?

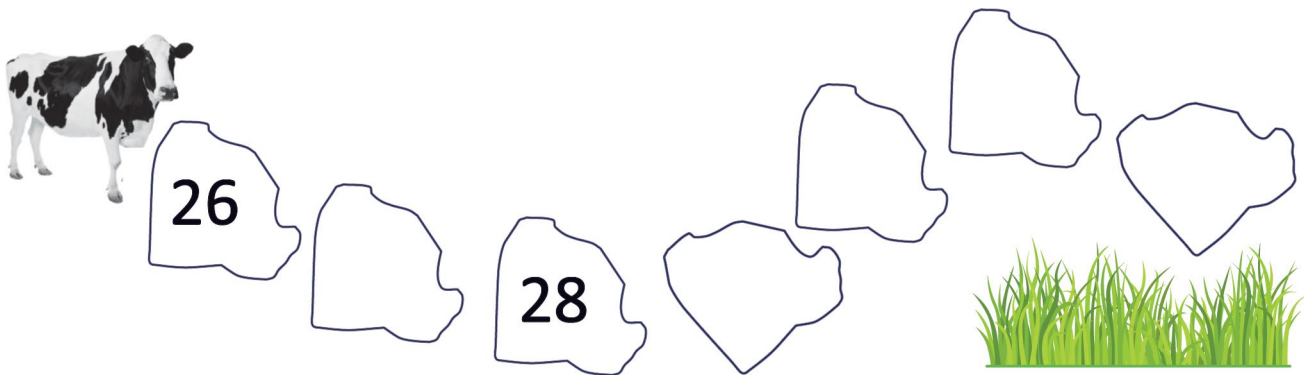


Extension:

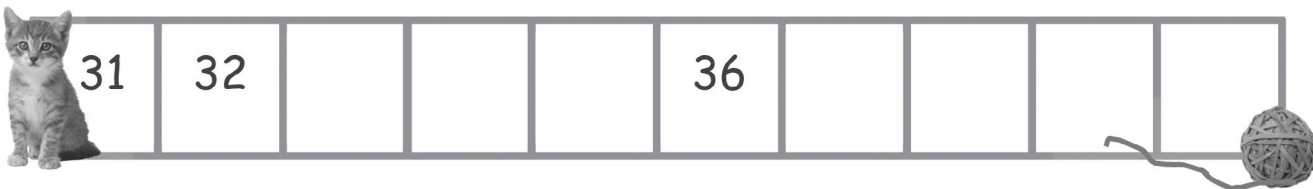
Count each number by 1s. Write the number below when there is a box.



Touch and count the rocks from the cow to the grass!



Count up by 1s. Help the kitty play with her yarn!



Count down by 1s.



Name _____

Date _____


Touch and count carefully. Cross out the mistake, and write the correct number.


3

Example:

1, 2, ~~9~~, 4, 5

						
20	21	22	23	24	25	29

						
30	31	32	33	43	35	36

						
25	26	27	28	29	29	31

						
34	35	36	37	38	39	44

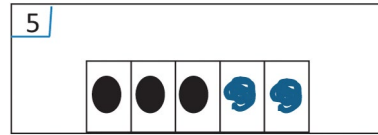


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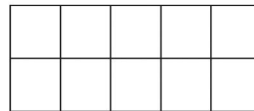
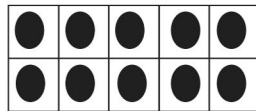
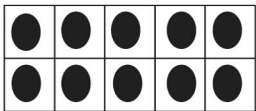
Date _____

Draw more to show the number.

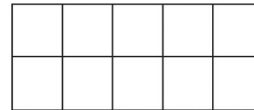
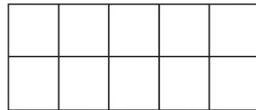
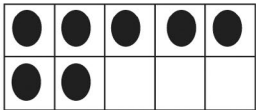
Example:



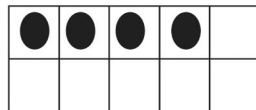
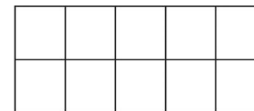
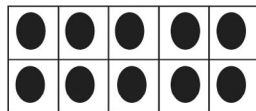
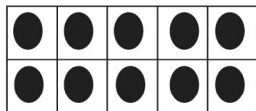
23



27



34



38



40

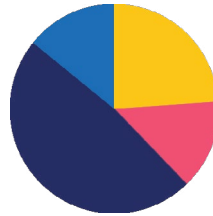


Lesson 20

Objective: Count across tens by ones to 100 with and without objects.

Suggested Lesson Structure

■ Application Problem	(7 minutes)
■ Fluency Practice	(11 minutes)
■ Concept Development	(24 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)

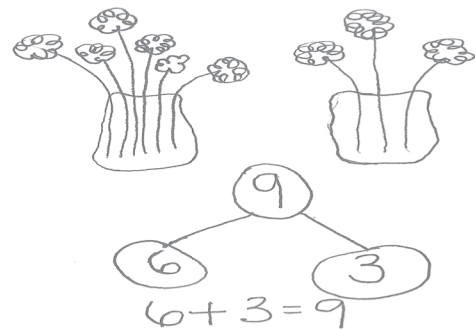


Application Problem (7 minutes)

Luna is putting 9 flowers in 2 vases. Draw the flowers to show a way she might do that. Make a number bond and a number sentence to match the idea. (Extension: See if there is another way to put the flowers in the vases.)

When students have finished, have them compare their work with another student. Are their ways of showing the flowers the same? Why or why not? How is the flower problem similar to the apple problem from yesterday?

Note: In this lesson, the Application Problem precedes the Fluency Practice because the fluency activities lead directly into the counting of the lesson.



Fluency Practice (11 minutes)

- 5-Group Flashes: Partners to 10 **K.2I** (3 minutes)
- Teen Number Bonds **K.2A, K.2B, K.2C** (4 minutes)
- Count on the Rekenrek **K.2A, K.2C** (4 minutes)

5-Group Flashes: Partners to 10 (3 minutes)

Materials: (T) Large 5-group cards (Lesson 1 Fluency Template 1)

Note: The 5-group formation facilitates speed and accuracy in recognizing partners of 10.

T: (Show 9 dots.) How many dots do you see?

S: 9.

T: How many more does 9 need to be 10?

S: 1.

Continue with the following possible sequence: 1, 5, 8, 2, 3, 7, 6, 1, 4, 3, 5, 2, 9.

Teen Number Bonds (4 minutes)

Materials: (S) Number bond (Lesson 7 Template)

Note: This activity reinforces part-whole relationships within teen numbers.

T: (Project the number bond with parts of 10 objects and 6 objects.) Say the larger part.

S: 10.

T: Say the smaller part.

S: 6.

T: Count the whole, or total, with me.

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

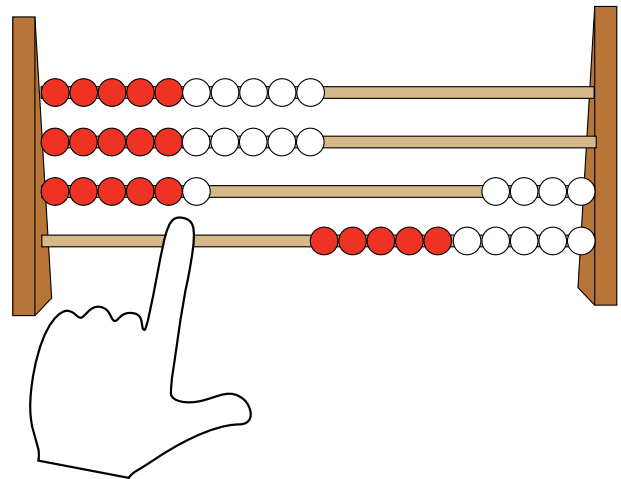
Continue with the following possible sequence: 10 and 7, 10 and 3, 10 and 1, 10 and 8, 10 and 4.

Count on the Rekenrek (4 minutes)

Materials: (S) Personal Rekenrek (from Lesson 10)

Note: Manipulating their own Rekenreks allows students to work at a comfortable pace. Saying “buzz” at the end of each row delightfully draws attention to the grouping of ten on the Rekenrek.

T: Put your Rekenrek together with your partner’s. Whisper count with your partner up to 40 on your Rekenrek. Take turns moving the beads with each new row. Buzz before you say the first number of each row.



Concept Development (24 minutes)

Materials: (T) 100-bead Rekenrek (S) 9 small 10-frame cards (Lesson 15 Template 2), 2 empty 10-frame cards (Template), 20 counters, blank paper to use as a hiding paper for the Problem Set

T: (Count by tens to 40 by sliding four rows on the Rekenrek.) Count with me.

S: 10, 20, 30, 40.

T: Now, count by ones. (Slide one bead at a time as students count.)

S: 41, 42, 43, 44, 45, 46, 47, 48, 49, 50.

T: What is the number the Say Ten way?

S: 5 tens.

T: (Slide one more bead.) Tell me the number the Say Ten way.

S: 5 tens 1.

T: Tell me the number the regular way.

S: 51.

T: (Slide the bead back so that only 50 beads are showing.) How many beads are there now?

S: 50.

T: (Slide one bead back so that 49 are showing.) How many beads are there, the Say Ten way?

S: 4 tens 9.

T: How many, the regular way?

S: 49.

Repeat this process from different starting points within 100, going back and forth across the ten.

T: Now, let's show and count numbers a different way. Lay out 10-frame cards as we count the Say Ten way.

S: (Slowly counting as students lay out the cards.) Ten, 2 tens, 3 tens, 4 tens, 5 tens.

T: Now, let's count the regular way by tens. Touch each card as we count it.

S: 10, 20, 30, 40, 50.

T: Place the two empty 10-frames down after 50.

T: Count on from 50, placing one counter at a time as we say each number. Let's start the Say Ten way.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Use emergent bilingual students' language to teach the names of the numbers. For instance, couple *twenty* with *veinte* and *thirty* with *treinta*. Building on students' culture and language while teaching helps native English speakers as well by expanding their horizon and exposing them to other cultures and languages.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Challenge students who have demonstrated proficiency by providing them with opportunities to extend the lesson. For instance, after counting by ones, have students skip-count from 28 by twos, by threes, and by fives, using the Rekenrek on their own. For very advanced students, ask them to write their answers before the teacher moves the beads to encourage their counting in their heads rather than relying on the visual support!

- S: (Placing a counter each time they count.) 5 tens 1, 5 tens 2, 5 tens 3, ... , 6 tens.
- T: Now, let's count that the regular way, starting at 51. Touch each counter as you count.
- S: 51, 52, 53, ... , 60.
- T: Place one more counter on the next 10-frame. Say the number the Say Ten way.
- S: 6 tens 1.
- T: What is the number the regular way?
- S: 61.
- T: What is one more than 60?
- S: 61.
- T: Take one counter off. What is the number the Say Ten way?
- S: 6 tens.
- T: What is the number the regular way?
- S: 60.
- T: Take away one more counter. What is the number the Say Ten way?
- S: 5 tens 9.
- T: Say the number the regular way.
- S: 59.

Repeat this process starting from different numbers within 100, focusing on crossing over to the next ten and then back (e.g., 69, 70, 71, 70, 69).

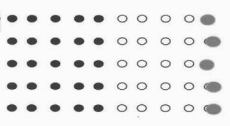
Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

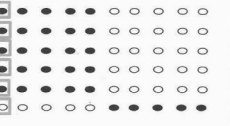
Note: Do not show students the directions paper included in the materials for the lesson and pictured above to the right. It would give away the answers. The Rekenrek template is used by the students for the Problem Set and Homework.

Have students continue the patterns to the larger numbers, identifying the number for each triangle, box, and green circle.

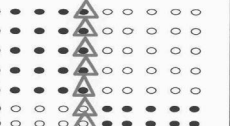
Teachers' Directions for the Rekenrek Problem Set.

Have students show 50 dots by using their hiding paper to cover the other rows. 

Then have students whisper count all the dots. Say the last number in each row loudly and color the circle green.

Have students show 60 dots using their hiding paper to cover 4 rows. 

Then have students whisper count all the dots. Have them box the first dot in each row with blue and say its number loudly.

Have students show 70 dots by hiding 30 dots. 

Then have students whisper count all the dots. Have them put a triangle around the fifth dot in each row with red and say those numbers loudly.



Student Debrief (8 minutes)

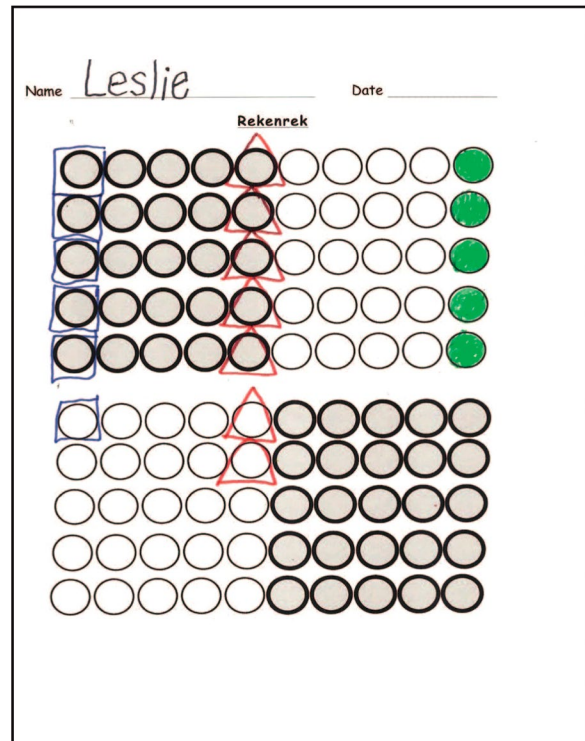
Lesson Objective: Count across tens by ones to 100 with and without objects.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner, taking turns reading the numbers forward and back. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- What is one more than 19? What is one more than 29?
- Count from 79 to 90. From 61 to 71.
- Who can come up and show one more than 30 on the Rekenrek? One more than 80?
- What did you get better at (learn, understand, do better) today?

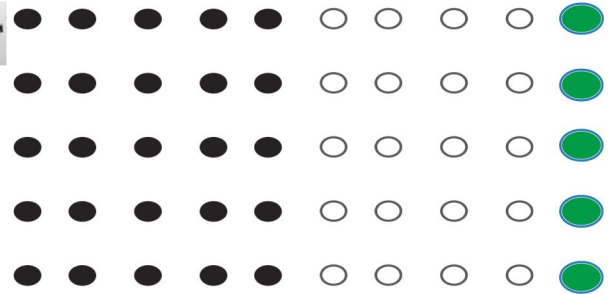


Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

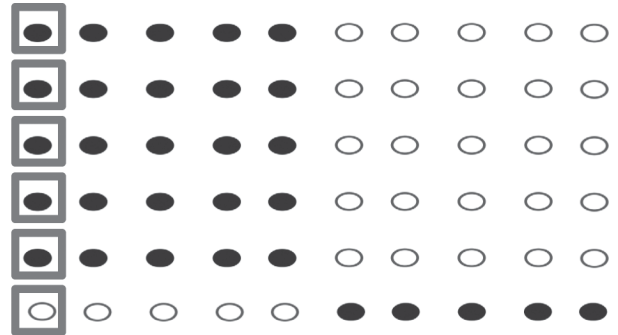
Teachers' Directions for the Rekenrek Problem Set

Have students show 50 dots by using their hiding paper to cover the other rows.



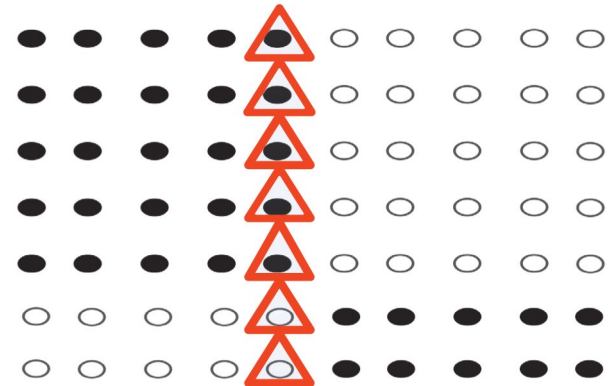
Then, have students whisper count all the dots. Say the last number in each row loudly, and color the circle green.

Have students show 60 dots using their hiding paper to cover 4 rows.



Then, have students whisper count all the dots. Have them box the first dot in each row with blue and say its number loudly.

Have students show 70 dots by hiding 30 dots.



Then, have students whisper count all the dots. Have them put a triangle around the fifth dot in each row with red and say those numbers loudly.



Name _____

Date _____

Rekenrek

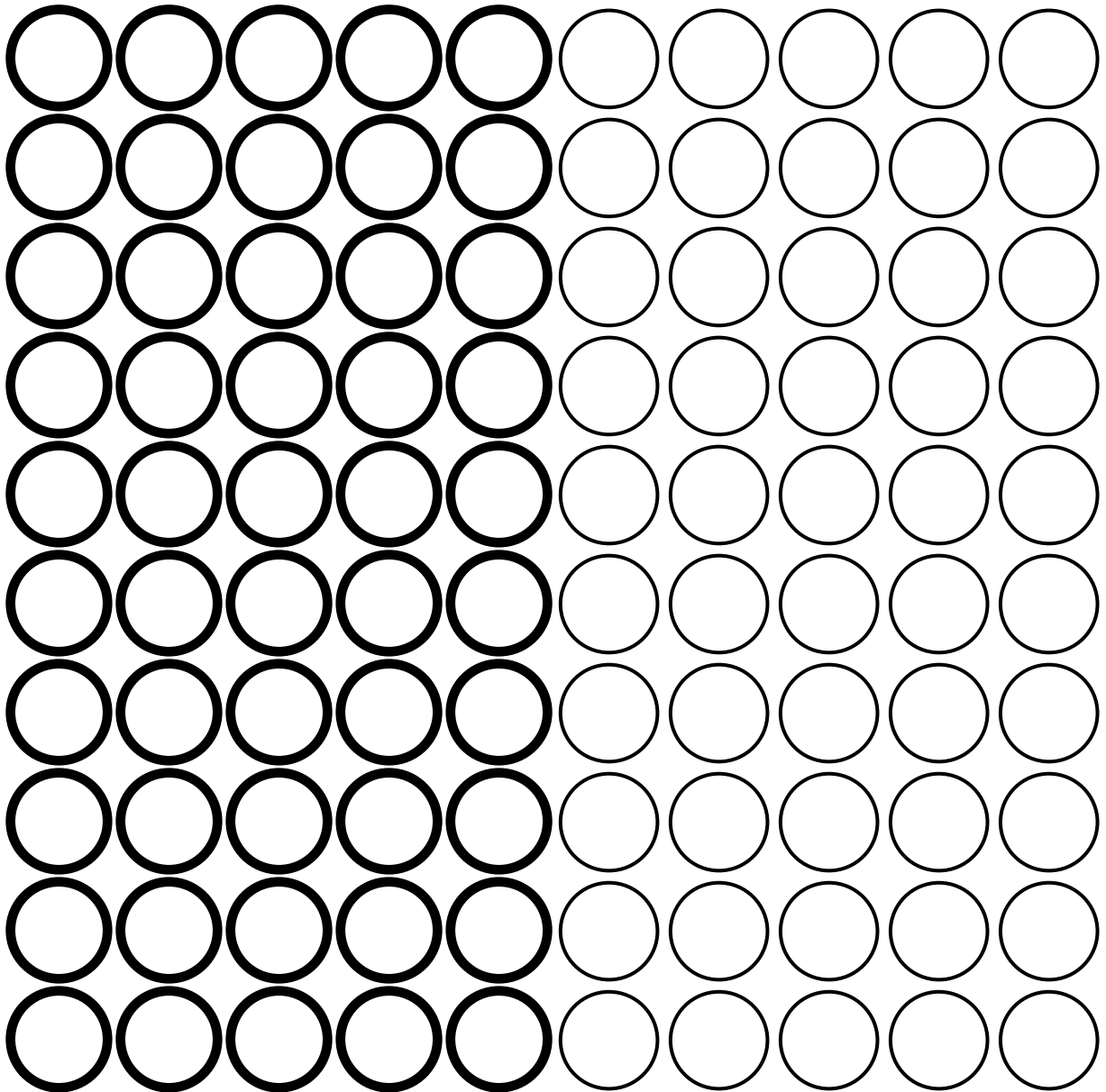
A 10x10 grid of circles. The first five rows have 5 shaded circles on the left and 5 empty circles on the right. The last five rows have 5 empty circles on the left and 5 shaded circles on the right.



Name _____

Date _____

Touch and whisper count the circles by 1s to 100. Say the last number in each row loudly, and color the circle purple. Do your best. Your teacher may call time before you are finished.



Directions for Rekenrek Homework

Use your Rekenrek (attached), hiding paper (an extra paper to hide some of the dots), and crayons to complete each step listed below. Read and complete the problems with the help of an adult.

Hide to show just 40 on your Rekenrek dot paper. Touch and count the circles until you say 28. Color 28 green.

- Touch and count each circle from 28 to 34.
 - Color 34 (the 34th circle) with a red crayon.
-

Hide to show just 60 on your Rekenrek dot paper. Touch and count the circles until you say 45. Color 45 yellow.

- Touch and count each circle from 45 to 52.
 - Color 52 with a blue crayon.
-

Hide to show just 90 on your Rekenrek dot paper. Touch and count the circles until you say 83. Color 83 purple.

- Touch and count down from 83 to 77.
 - Color 77 with a red crayon.
-

Show 100.

- Touch and count, starting at 1.
- Say the last number in each row loudly. Color the circle black.

Name _____

Date _____

Rekenrek

A 10x10 grid of circles used for a rekenrek activity. The grid is divided into two 5x5 sections. The top section consists of 5 rows, each with 5 shaded circles on the left and 5 empty circles on the right. The bottom section consists of 5 rows, each with 5 empty circles on the left and 5 shaded circles on the right.



empty 10-frame cards





Topic E

Represent and Apply Compositions and Decompositions of Teen Numbers

K.2D, K.2E, K.2F, K.2G, K.2H, K.2B, K.5A

Focus Standards:	K.2D	Recognize instantly the quantity of a small group of objects in organized and random arrangements.	
	K.2E	Generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20.	
	K.2F	Generate a number that is one more than or one less than another number up to at least 20.	
	K.2G	Compare sets of objects up to at least 20 in each set using comparative language.	
	K.2H	Use comparative language to describe two numbers up to 20 presented as written numerals.	
Instructional Days:	4		
Coherence	-Links from:	GK–M4	Number Pairs, Addition and Subtraction to 10
	-Links to:	G1–M2	Introduction to Place Value Through Addition and Subtraction Within 20

Topic E’s Lesson 21 begins as students represent teen number decompositions and compositions by writing addition sentences. In Lesson 22, students make bonds with materials and hide one of the parts for their partners, who must figure out what the hidden part is. The number bond with a hidden part is represented by the teacher as an addition equation with a missing addend—the hidden part (aligns to **1.5F**). In Lesson 23, students compare teen numbers by counting and comparing the extra ones. For example, students decompose 12 into 10 and 2, and 16 into 10 and 6. They compare 2 ones and 6 ones to see that 16 is more than 12 using the structure of the 10 ones. This is an application of the Kindergarten comparison standards (**K.2E, K.2G, K.2H**), which move into the Grade 1 comparison standard (**1.2E**).

In Lesson 24, students reason about situations to determine if they are decomposing a teen number as 10 ones and some ones, or composing 10 ones and some ones to *find* a teen number. They analyze the number sentences that best represent each situation (**K.2E, K.2F**). Throughout the lesson, students draw the number of objects presented in the situation (**K.2D, K.2E**).



A Teaching Sequence Toward Proficiency in Representing and Applying Compositions and Decompositions of Teen Numbers

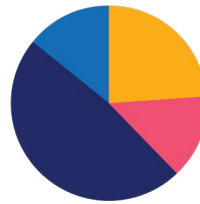
- Objective 1:** Represent teen number compositions and decompositions as addition sentences.
(Lesson 21)
- Objective 2:** Represent teen number decompositions as 10 ones and some ones, and find a hidden part.
(Lesson 22)
- Objective 3:** Decompose teen numbers as 10 ones and some ones; compare *some ones* to compare the teen numbers.
(Lesson 23)
- Objective 4:** Reason about and represent situations, decomposing teen numbers into 10 ones and some ones and composing 10 ones and some ones into a teen number.
(Lesson 24)

Lesson 21

Objective: Represent teen number compositions and decompositions as addition sentences.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(7 minutes)
■ Concept Development	(24 minutes)
■ Student Debrief	(7 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- Dot Cards of Seven **K.2D, K.2I** (4 minutes)
- Count Crossing Tens **K.5A** (4 minutes)
- Group Tens and Ones **K.2C** (4 minutes)

Dot Cards of Seven (4 minutes)

Materials: (T) Dot cards of 7 (Lesson 5 Fluency Template 1)

Note: The varied configurations of dots used in this fluency activity allow students to see different ways to decompose 7, strengthening their understanding of part–whole relationships.

T: (Show 7 dots.) How many do you see? (Give students time to count.)

S: 7.

T: How can you see 7 in two parts?

S: (Coming up to the card.) 5 here and 2 here.

T: Say the number sentence.

S: 5 and 2 makes 7.

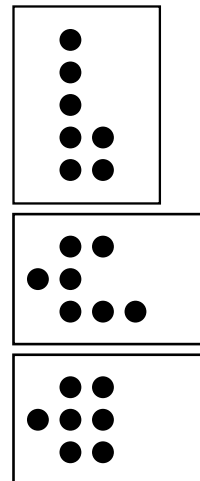
T: Who sees 7 in two different parts?

S: (Coming up to the card.) I see 3 here and 4 here.

T: Say the number sentence.

S: 3 and 4 makes 7.

Continue with other dot cards of 7.

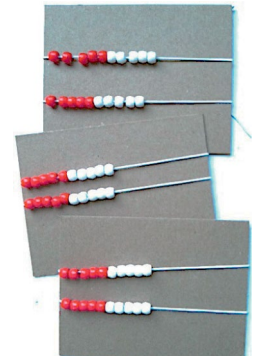


Count Crossing Tens (4 minutes)

Materials: (S) Personal Rekenrek (Lesson 10)

Note: For this activity, it may be preferable to combine six elastics of beads onto one card. However, it may help students develop number sense to use their three individual cards as described below so that students reference where they left off very clearly when counting to 40.

- T: Today, we're going to work in groups of 3. Put your personal Rekenreks together, and count your beads. Say "buzz" after you finish a row. Partner A moves the beads of the first Rekenrek, Partner B moves the beads of the second, and Partner C moves the beads of the third.
- T: If you finish early, count again. This time, after the color changes, say "buzz."



Group Tens and Ones (4 minutes)

Materials: (T) Prepared images of arrays and circular configurations, large 5-group cards (Lesson 1 Fluency Template 1)

Note: This activity advances the skill of grouping tens and ones by moving on to visual recognition. Counting only by sight pushes students to work efficiently by keeping track of groups rather than individual objects.

- T: (Project a circular configuration of 12 objects.) Say the number of objects that you see.
- S: (Pause while they count.) 12.
- T: Say the number the Say Ten way.
- S: Ten 2.

Repeat the process for four or five other numbers between 10 and 100, mixing arrays, circular configurations, and 5-group cards.

Although students cannot touch the images, encourage them to track their grouping with hands from afar. They might hold up a finger to mark the starting point in a circular configuration or use an outstretched hand to visually separate a group of ten from remaining stars in an array.



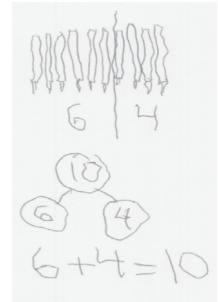
NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Increase the learning pace for students who have demonstrated proficiency by providing extensions to the Application Problem:

- What if each student was given 16 colored pencils and 4 regular pencils? How many pencils are there altogether?
Hint: Use your first drawing to help you solve.
- How many pencils would two students have altogether?
Hint: Use your first two drawings to help you solve.

Application Problem (7 minutes)

Each student was given 6 colored pencils and 4 regular pencils. How many pencils did each student get? Draw a picture and a number bond, and then write a number sentence.

**Concept Development (24 minutes)**

Materials: (S) Bag of twenty 2-color beans, number bond (Lesson 7 Template) within a personal white board

- T: Put 10 red beans in one part of the number bond. Put 3 white beans in the other part.
- T: What is 10 ones and 3 ones?
- S: 13 ones.
- T: Say the number the Say Ten way.
- S: Ten 3.
- T: Now, count 13 beans into the place where we show the total or whole amount.
- T: So, we have 13 in two parts. What are the parts?
- S: 10 and 3.
- T: Talk to your partner. When we solved our story problem today, we had two parts. What is another way you already know to show a number in two parts?
- S: We can show a number in two parts by making piles of things, like 10 things and 3 things. → We can show the number with a number bond. → We can make a picture. → We can show it with our place value cards. → We can show it on the Rekenrek. → We can show it with a plus sign.
- T: Lots of good ideas. We can show the same idea in so many ways. When we are thinking about 13, what do you think is the clearest way to show the two parts of 10 and 3. Talk to your partner.
- S: The number bond. It's clear to see. → I like to see how big the number is, so counters are my favorite. → I feel big girls and boys do addition, so that's how I want to show it.
- T: Each way we show a number in two parts helps us understand our number better. Addition is another way to do that.
- T: (Write $10 + 3 = \underline{\quad}$ on the board.)
- T: What is $10 + 3$? Give me a complete number sentence.
- S: $10 + 3 = 13$.
- T: (Write 13 on the board to complete the equation.) Look at your number bond. How many beans do you have in the whole amount?
- S: 13.

**NOTES ON
MULTIPLE MEANS
OF ENGAGEMENT:**

For students who need support with developing their language skills, including some emergent bilingual students, ask them to write their answers on their personal white boards, as well as say it aloud. After writing and saying the answer orally, have all students repeat the number sentence aloud again.



- T: (Write $13 = \underline{\quad} + \underline{\quad}$ on the board.)
- T: How many beans are in this part? Let's count.
- S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
- T: How many beans are in this part?
- S: 3.
- T: Look at the parts. Complete this number sentence. (Point to $13 = \underline{\quad} + \underline{\quad}$.)
- S: $13 = 10 + 3$.
- T: We started with the whole amount with our beans, so our number sentence also starts with the whole amount.
- T: Clear your board. Show 10 red beans and 5 white beans in the two parts.
- T: Now, count to find out how many beans you will put to show the total. It needs to match the amount in the parts.
- S: (After counting.) 15.
- T: Count that many beans into the place where you put your total.
- T: (After counting.) What is another way to show the two parts and the total?
- S: $10 + 5 = 15$.
- T: (Write $10 + 5 = 15$ on the board.)
- T: Do you have the same number of beans in the parts as you have in the place for the total?
- S: Yes!
- T: When 15 is split into two parts, is it the same as 10 and 5? Then, your number bond is true!
- T: Clear your board. This time, use your marker to write 19 where we show the whole. Let's put this number in two parts.
- T: Show 10 red beans as one part. (Pause while students place the beans.)
- T: Count out the beans you need to put in the other part to get to 19.
- S: (After counting.) 9.
- T: What is one number sentence that tells about this number bond?
- S: $10 + 9 = 19$.
- T: This time, start with the total, so we really feel that big number splitting into two parts.
- S: $19 = 10 + 9$.

Continue in this manner with students creating and talking about other teen number bonds and their matching addition sentences

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Note: Have students complete the bonds and number sentences. Give them access to materials and place value cards as they do so.



Student Debrief (7 minutes)

Lesson Objective: Represent teen number compositions and decompositions as addition sentences.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- In a number bond, which number is larger—the whole or a part?
- Explain how the teen numbers are 10 ones and some more ones.
- Look at each number bond as I say the whole. You read the number the Say Ten way; for example, I say 13, and you say ten 3.
- Mental math: I say 16; you say $10 + 6$. I say 17; you say ...? I say 19; you say ...?
- Show a row of ten on the Rekenrek, and then slide beads to show the teen numbers. Say the numbers the regular and Say Ten way.
- What are we doing with the parts when we add? Are we joining them or separating them?

Name Lia Date _____

Fill in each number bond, and write a number sentence to match them.

Example:

$\begin{array}{c} \boxed{13} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{3} \\ 13 = \underline{10} + \underline{3} \end{array}$	$\begin{array}{c} \boxed{15} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{5} \\ 15 = \underline{10} + \underline{5} \end{array}$	$\begin{array}{c} \boxed{17} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{7} \\ 17 = \underline{10} + \underline{7} \end{array}$
$\begin{array}{c} \boxed{18} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{8} \\ 10 + 8 = \underline{18} \end{array}$	$\begin{array}{c} \boxed{16} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{6} \\ 10 + 6 = \underline{16} \end{array}$	$\begin{array}{c} \boxed{14} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{4} \\ \underline{14} = 10 + 4 \end{array}$
$\begin{array}{c} \boxed{12} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{2} \\ 12 = \underline{10} + \underline{2} \end{array}$	$\begin{array}{c} \boxed{11} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{1} \\ 11 = \underline{10} + \underline{1} \end{array}$	<p>Early finishers: Make up your own teen number bonds and number sentences on the back!</p>

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

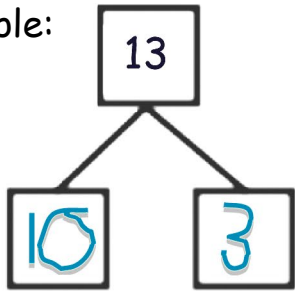


Name _____

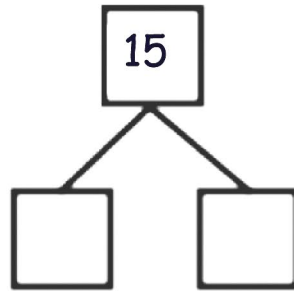
Date _____

Fill in each number bond, and write a number sentence to match.

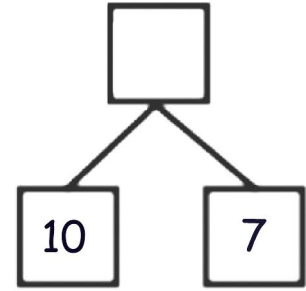
Example:



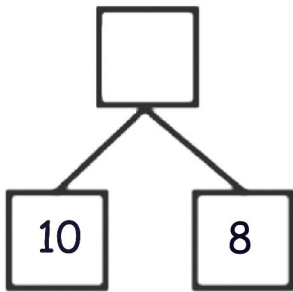
$13 = 10 + 3$



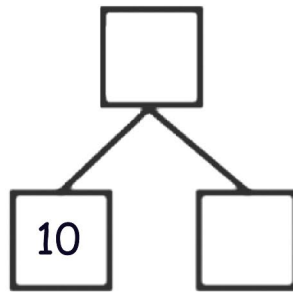
$15 = \underline{\quad} + \underline{\quad}$



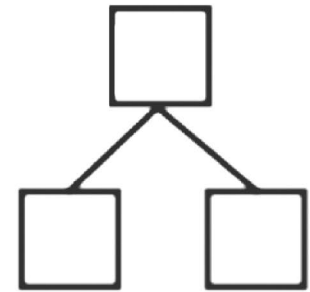
$17 = \underline{\quad} + \underline{\quad}$



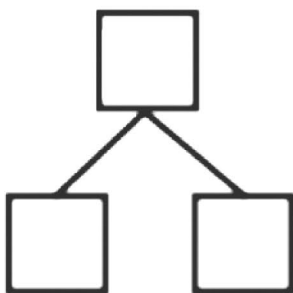
$10 + 8 = \underline{\quad}$



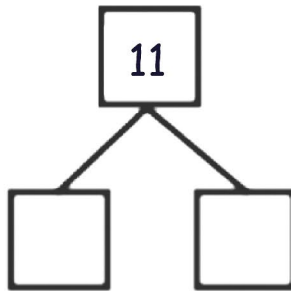
$10 + 6 = \underline{\quad}$



$\underline{\quad} = 10 + 4$



$12 = \underline{\quad} + \underline{\quad}$



$\underline{\quad} = \underline{\quad} + \underline{\quad}$

Early finishers:
Make up your own
teen number
bonds and number
sentences on the
back!



Name _____

Date _____

The first number is the whole. Circle its parts.

5	1	②	③
---	---	---	---

12	10	6	2
----	----	---	---

11	1	10	8
----	---	----	---

14	4	2	10
----	---	---	----

18	1	10	8
----	---	----	---

10	10	1	0
----	----	---	---

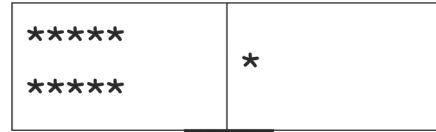
20	10	2	10
----	----	---	----



Name _____

Date _____

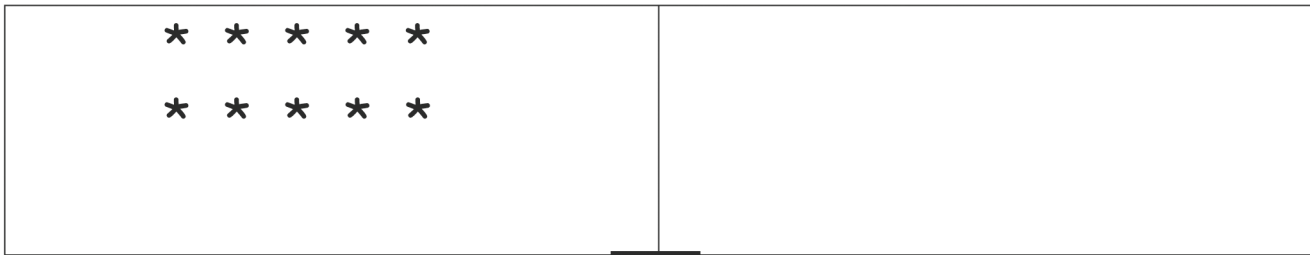
Draw stars to show the number as a number bond of 10 ones and some ones. Show each example as two addition sentences of 10 ones and some ones.



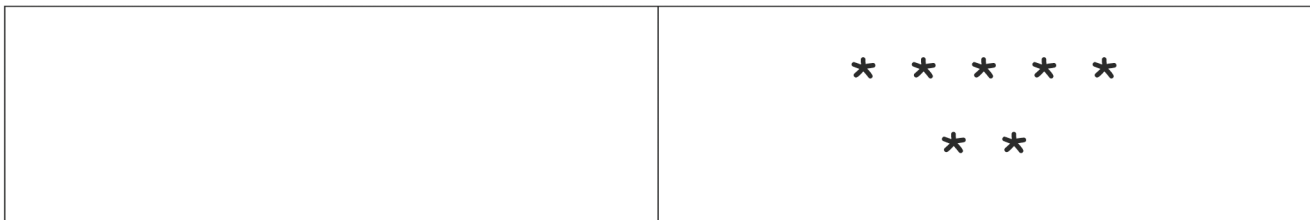
11

$10 + 1 = 11$

$11 = 10 + 1$



15



17



$\begin{array}{ccccc} * & * & * & * & * \\ * & * & * & * & * \end{array}$	
---	--

19

14

$\begin{array}{ccccc} * & * & * & * & * \\ * & * & * & * & * \end{array}$	
---	--

20

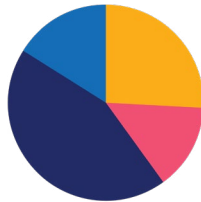


Lesson 22

Objective: Represent teen number decompositions as 10 ones and some ones, and find a hidden part.

Suggested Lesson Structure

■ Fluency Practice	(13 minutes)
■ Application Problem	(7 minutes)
■ Concept Development	(22 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (13 minutes)

- Number Bonds of Seven **K.2D, K.2I** (4 minutes)
- Four Rekenreks **K.5A** (5 minutes)
- Count Teen Numbers **K.2A, K.5A** (4 minutes)

Number Bonds of Seven (4 minutes)

Materials: (T) Dot cards of 7 (Lesson 5 Fluency Template 1)

Note: This fluency activity gives students an opportunity to develop increased familiarity with compositions of seven and practice seeing part–whole relationships.

Show a dot card, and indicate 6 and 1 as parts.

- T: Say the larger part. (Give students time to count.)
 S: 6.
 T: Say the smaller part.
 S: 1.
 T: What is the total number of dots? (Give time to count.)
 S: 7.
 T: Say the number sentence.
 S: 6 and 1 makes 7.
 T: (Turn the card around to get 1 and 6.)

Continue with 5 and 2, 7 and 0, 4 and 3.

Four Rekenreks (5 minutes)

Materials: (S) Personal Rekenrek (Lesson 10)

Note: Saying “bop” after each row of 10 provides a pause in counting, both reinforcing the start of a new row of ten and interrupting the count sequence, which helps students when they transition from counting all to count on in Grade 1.

T: Sit in groups of 4. Put your Rekenreks together. Partner A moves the beads of the first row. Partner B moves the beads of the second row, etc. After each number that ends a row, say “bop.”

Count Teen Numbers (4 minutes)

Note: Alternating between Say Ten counting and regular counting challenges students to think carefully about each number because they cannot rely on the rote count sequence. By doing so, this reinforces teen numbers as 10 ones and some additional ones. (For example, students must know that 12 comprises 10 ones and 2 ones to recognize that ten 3 would come next if counting forward.)

- T: Count from 11 to 20 the Say Ten way.
 S: Ten 1, ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8, ten 9, 2 tens.
 T: Count back from 20 to 11 the Say Ten way.
 S: 2 tens, ten 9, ten 8, ten 7, ten 6, ten 5, ten 4, ten 3, ten 2, ten 1.
 T: Count from 11 to 20 the regular way.
 S: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
 T: Count back from 20 to 11 the regular way.
 S: 20, 19, 18, 17, 16, 15, 14, 13, 12, 11.
 T: Now, I want you to change the way you count each time. We’ll say the first number the Say Ten way. Then, we’ll say the next number the regular way. Listen to my example. Ten 1, 12, ten 3, 14, ten 5, 16. Now, it’s your turn.
 S: Ten 1, 12, ten 3, 14, ten 5, 16, ten 7, 18, ten 9, 20.
 T: Count back from 20 to 11, starting with the Say Ten way.
 S: 2 tens, 19, ten 8, 17, ten 6, 15, ten 4, 13, ten 2, 11.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Differentiate the Application Problem for students who need more proficiency practice by asking them to put the puppies (counters) in a 10-frame.

Ask students who have demonstrated proficiency to double the number of puppies in the cage by using two 10-frames to show 10 and some more.

Application Problem (7 minutes)

Peter saw 8 puppies at the pet store. While he was watching them, 2 hid in a little box. How many puppies could Peter see then? Draw a picture, and write a number bond and number sentence to match the story.

Note: This Application Problem is an example of a *take from with result* students should be able to solve using objects or manipulatives by the end



Concept Development (22 minutes)

Materials: (S) 40 centimeter cubes and number bond (Lesson 7 Template) within a personal white board (per pair)

T: Count out 12 cubes, and put them in the place where we show the whole on the number bond.

T: Group 10 ones within that place.

T: What are the parts of 12 you see?

S: 10 and 2.

T: Count out cubes to fill in parts so that the total and the parts are equal.

S: (Students do so.)

T: Fill in this number sentence with me. (On the board, write $12 = \underline{\quad} + \underline{\quad}$.)

S: $12 = 10 + 2$.

T: Say the number the Say Ten way.

S: Ten 2.

T: Close your eyes. (Remove the 2 cubes.) Open your eyes. What part is hiding?

S: 2.

T: Fill in this number sentence with me. (Write $12 = 10 + \underline{\quad}$ on the board.)

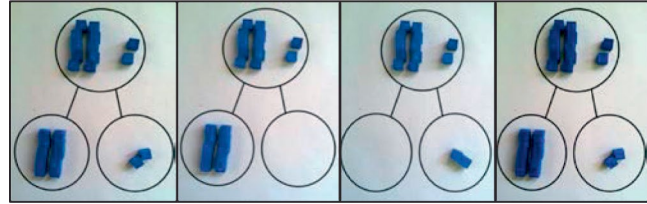
S: $12 = 10 + 2$. (Put the cubes back as they say the statement.)

T: Close your eyes. (Remove the 10 cubes.) Open your eyes. What part is hiding?

S: 10 ones!

T: Fill in this number sentence with me. (Write $12 = \underline{\quad} + 2$ on the board.)

S: $12 = 10 + 2$.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

The teen numbers represent a particular challenge for some students, including some emergent bilingual students, because the difference between *thirteen* and *thirty* can sound similar. Scaffold the lesson for students by providing them with visuals of the teen numbers in both written form and the numeral form. Students also need practice hearing (stress the *teen* of the number by putting a finger near the mouth) and saying *thirteen* and *fourteen* so that they can hear the stress on the *teen* part of the number.

Continue in this manner with other teen numbers. Have students then work in pairs to play Hide and Say the Hidden Part.

- Partner A builds a teen number in the place for the total or whole.
- Partner B models the number as two parts.
- Partner A closes her eyes while Partner B hides one part.
- Partner A writes the complete number sentence (e.g., $14 = 10 + 4$). Switch roles.

T: We had a hidden part like in our story problem of the puppies. We didn't know the part that Peter could still see in the cozy cage after the two puppies hid inside the box!

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Be sure that students have access to materials such as counters, place value cards, and personal white boards for drawing while using the Problem Set. Encourage them to think about and demonstrate the many ways they can show teen numbers in two parts.

Note: In this Problem Set, students use the centimeter cubes and decompose teen numbers into two parts and then write corresponding equations. $12 = 10 + \underline{\quad}$. This bridges to Grade 1 content.

Student Debrief (8 minutes)

Lesson Objective: Represent teen number decompositions as 10 ones and some ones, and find a hidden part.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- What did you get better at today?
- What do you notice from the Problem Set? (An example follows.)

Name Nelson Date _____

Model each number with cubes on your number bond mat. Then, complete the number sentences and number bonds.

Example:

$\begin{array}{c} \boxed{11} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{1} \end{array}$ $11 = 10 + \underline{1}$ $10 + \underline{1} = 11$	$\begin{array}{c} \boxed{12} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{2} \end{array}$ $12 = 10 + \underline{2}$ $10 + \underline{2} = 12$	$\begin{array}{c} \boxed{13} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{3} \end{array}$ $13 = 10 + \underline{3}$ $10 + \underline{3} = 13$
$\begin{array}{c} \boxed{15} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{5} \end{array}$ $\underline{10} + 5 = 15$ $15 = \underline{10} + 5$	$\begin{array}{c} \boxed{17} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{7} \end{array}$ $\underline{10} + 7 = 17$ $17 = \underline{10} + 7$	$\begin{array}{c} \boxed{18} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{8} \end{array}$ $\underline{10} + 8 = 18$ $18 = 10 + \underline{8}$
$\begin{array}{c} \boxed{16} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{6} \end{array}$ $16 = 6 + \underline{10}$ $6 + \underline{10} = 16$	$\begin{array}{c} \boxed{19} \\ \swarrow \quad \searrow \\ \boxed{10} \quad \boxed{9} \end{array}$ $9 + \underline{10} = 19$ $19 = 10 + \underline{9}$	

- T: Look at the first two number bonds. What is the same and different about these two bonds?
- S: Both bonds have 10 ones. → Yeah, but they don't have the same number of extra ones. → One has 2 extra ones, and the other has 3 extra ones. → If you count all the ones together, one is twelve, and one is thirteen. → If we count the Say Ten way, one is ten 2, and one is ten 3. → If you separate both numbers, there are 10 ones and some ones inside! → The number sentences show that we can write 12 and 13 in number sentences with 10 plus in them.
- What can you explain about the numbers 11, 12, 13, 14, 15, 16, 17, 18, 19? What do they have in common? How are they different?
 - What did you learn in this lesson?



Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

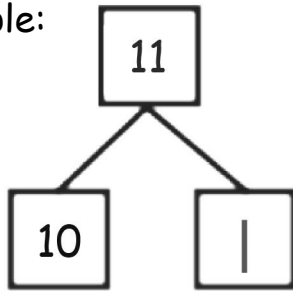


Name _____

Date _____

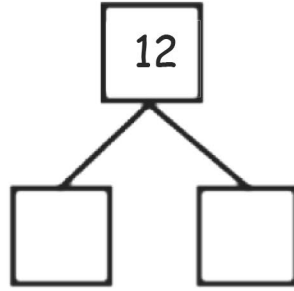
Model each number with cubes on your number bond mat. Then, complete the number sentences and number bonds.

Example:



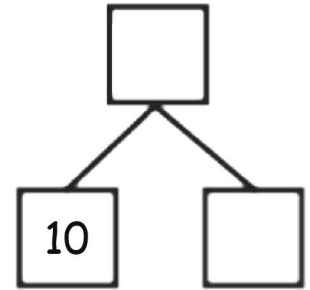
$$11 = 10 + \underline{1}$$

$$10 + \underline{1} = 11$$



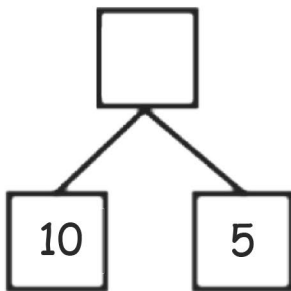
$$12 = 10 + \underline{\quad}$$

$$10 + \underline{\quad} = 12$$



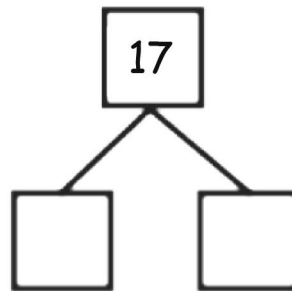
$$13 = 10 + \underline{\quad}$$

$$10 + \underline{\quad} = 13$$



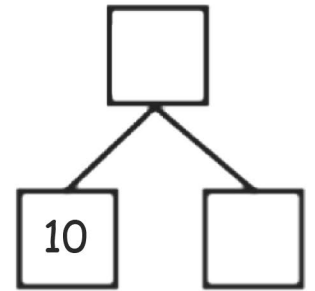
$$\underline{\quad} + 5 = 15$$

$$15 = \underline{\quad} + 5$$



$$\underline{\quad} + 7 = 17$$

$$17 = \underline{\quad} + 7$$



$$\underline{\quad} + 8 = 18$$

$$18 = 10 + \underline{\quad}$$

$$16 = 6 + \underline{\quad}$$

$$6 + \underline{\quad} = 16$$

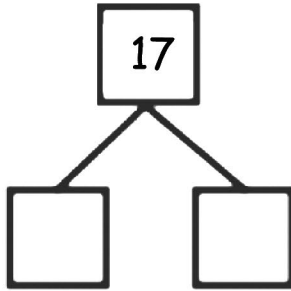
$$9 + \underline{\quad} = 19$$

$$19 = 10 + \underline{\quad}$$


Name _____

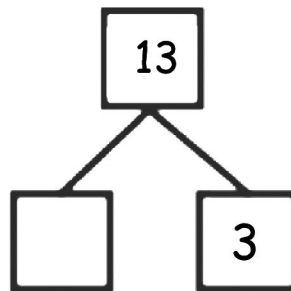
Date _____

Complete the number sentences and number bonds. Use your materials to help you.



$$\underline{\quad\quad} + 7 = 17$$

$$17 = \underline{\quad\quad} + 10$$



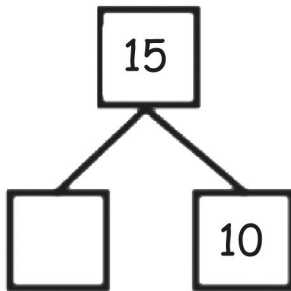
$$\underline{\quad\quad} + 3 = \underline{\quad\quad}$$

$$13 = \underline{\quad\quad} + 10$$

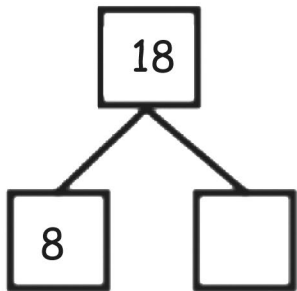
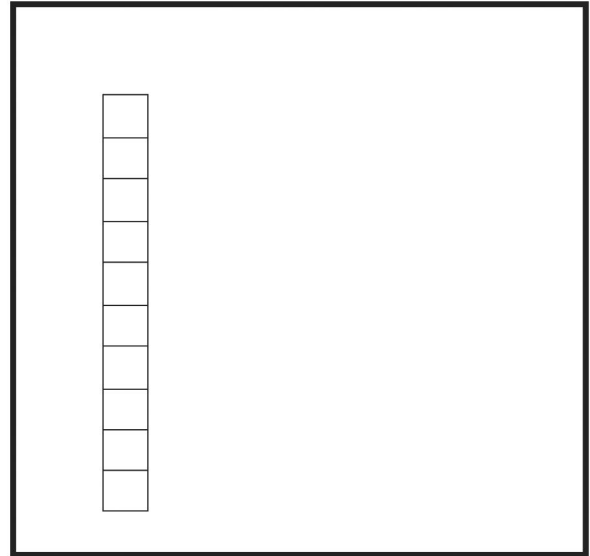
Name _____

Date _____

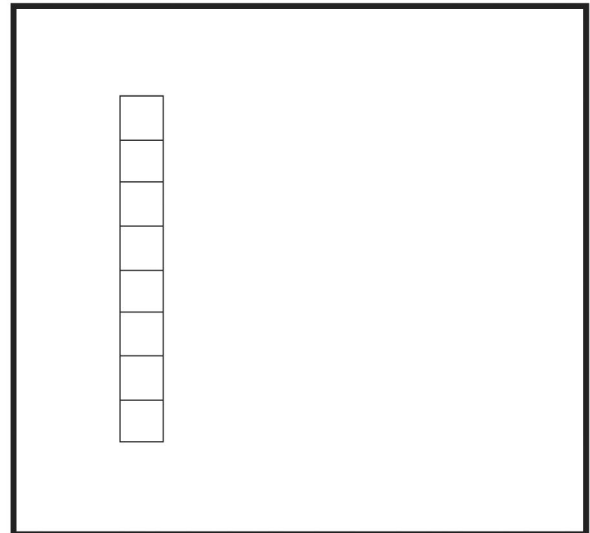
Complete the number bonds and number sentences. Draw the cubes of the missing part.

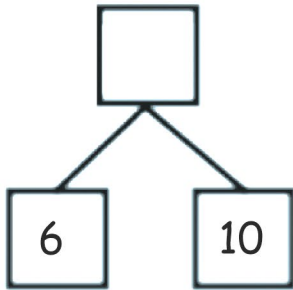


$$15 = \underline{\quad\quad} + 10$$

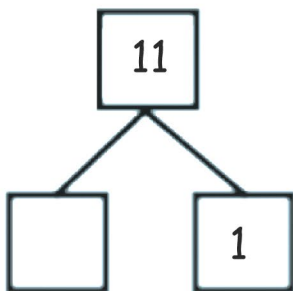
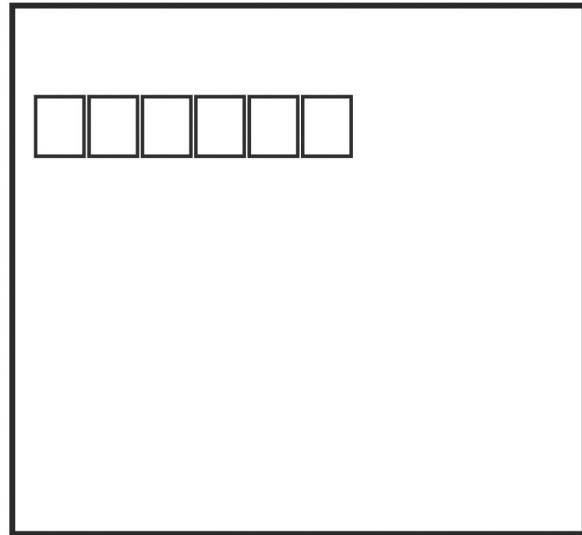


$$\underline{\quad\quad} + 8 = 18$$

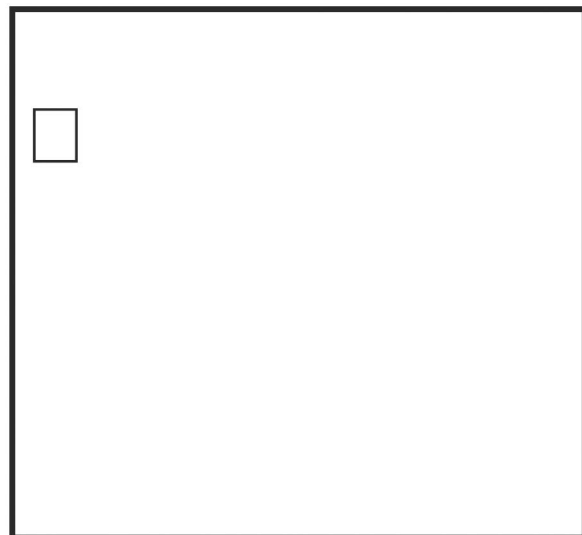




$$6 + \underline{\quad} = 16$$



$$1 + \underline{\quad} = 11$$



Lesson 23

Objective: Decompose teen numbers as 10 ones and some ones; compare *some ones* to compare the teen numbers.

Suggested Lesson Structure

■ Application Problem	(7 minutes)
■ Fluency Practice	(11 minutes)
■ Concept Development	(25 minutes)
■ Student Debrief	(7 minutes)
Total Time	(50 minutes)



Application Problem (7 minutes)

Lisa has 5 pennies in her hand and 2 in her pocket. Draw Lisa's pennies.
Matt has 6 pennies in his hand and 2 in his pocket. Draw Matt's pennies.
Who has fewer pennies—Lisa or Matt? How do you know?

Note: This Application Problem reviews comparing numbers within 10, which prepares students to compare teen numbers in today's Concept Development.



Fluency Practice (11 minutes)

- Dot Cards of Eight **K.2D, K.2I** (3 minutes)
- Count Teen Numbers **K.2A, K.5A** (4 minutes)
- Teen Numbers on the Rekenrek **K.2E** (4 minutes)

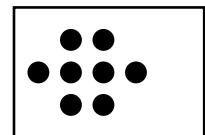
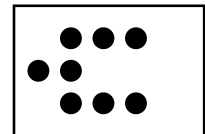
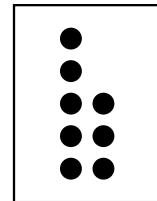
Dot Cards of Eight (3 minutes)

Materials: (T) Dot cards of 8 (Lesson 6 Fluency Template)

Note: This fluency activity gives students an opportunity to develop increased familiarity with decompositions of eight and practice seeing part-whole relationships.

T: (Show a card with 8 dots.) How many dots do you count?
Wait for the signal to tell me. Get ready (snap).

S: 8.



- T: How can you see them in two parts?
 S: (Student comes up to the card.) I saw 5 here and 3 here.
 T: Say the number sentence.
 S: 5 and 3 makes 8.
 T: Flip it.
 S: 3 and 5 makes 8.
 T: Who sees 8 in two different parts?
 S: (Come up to the card.) I see 6 here and 2 here.
 T: Say the number sentence.
 S: 6 and 2 makes 8.
 T: Flip it.
 S: 2 and 6 makes 8.

Continue with other cards and decompositions of 8.

Count Teen Numbers (4 minutes)

Note: If alternating between counting the Say Ten way and regular way is challenging for some students, consider scaffolding this activity by doing it first with the Rekenrek.

- T: Count from 11 to 20 and back to 11 the Say Ten way.
 S: Ten 1, ten 2, ten 3, ten 4, ten 5, ten 6, ten 7, ten 8, ten 9, 2 tens, ten 9, ten 8, ten 7, ten 6, ten 5, ten 4, ten 3, ten 2, ten 1.
 T: Count from 11 to 20 and back to 11 the regular way.
 S: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11.
 T: Now, I want you to change the way you count each time. We'll say the first number the regular way. Then, we'll say the next number the Say Ten way. Listen to my example. 11, ten 2, 13, ten 4, 15, ten 6. Now, it's your turn.
 S: 11, ten 2, 13, ten 4, 15, ten 6, 17, ten 8, 19, 2 tens.
 T: Count back from 20 to 11, starting with the regular way.
 S: 20, ten 9, 18, ten 7, 16, ten 5, 14, ten 3, 12, ten 1.

Teen Numbers on the Rekenrek (4 minutes)

Materials: (S) Personal Rekenrek (Lesson 10)

Note: This fluency activity supports the grade-level standard of understanding teen numbers as ten ones and some more ones.

- T: Show me the number 12 in two parts on your Rekenrek with one part 10 ones on your top row.
 S: (Show 12 on their Rekenreks.)
 T: Now, show me 12 again, but this time, with 10 ones that are all red.
 T: Now, show me 12 again, but this time, with 10 ones that are all white.

Continue with other teen numbers.



Concept Development (25 minutes)

Materials: (S) 20 linking cubes, personal white board

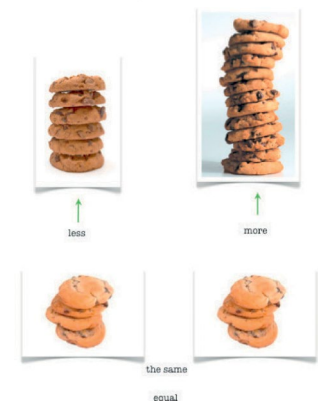
- T: Use your personal white board as a work mat. Partner A, count out 13 cubes on your mat. Partner B, count out 15 cubes on your mat.
- T: Now, each of you move your cubes to show the number the Say Ten way. Partner A, tell me your number the Say Ten way.
- S: (Partner A only.) Ten 3.
- T: Partner B, tell me your number the Say Ten way.
- S: (Partner B only.) Ten 5.
- T: How can we tell which number is greater? You both have 10 ones. True?
- S: Yes.
- T: So, let's look at the extra ones. Which number is greater—3 ones or 5 ones?
- S: 5 ones!
- T: So, which number is greater—ten 3 or ten 5?
- S: Ten 5.
- T: Let's all say 15 is more than 13.
- S: 15 is more than 13.
- T: Let's say that the Say Ten way. Ten 5 is more than ten 3.
- S: Ten 5 is more than ten 3.
- T: Now, Partner A, show me 14 on your mat as 10 ones and some ones. Partner B, show 11 on your mat as 10 ones and some ones.
- T: Do you both have 10 ones?
- S: Yes.
- T: So, let's compare the extra ones. Which part is smaller—4 ones or 1 one?
- S: 1 one.
- T: Talk to your partner about which number is smaller and which number is larger, as well as how you know.
- S: (Students talk.)
- T: Now, I want both Partner A and Partner B to show 17 on your mat. Show it as 10 ones and some ones.
- T: Do you both have 10 ones?
- S: Yes.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students, including some emergent bilingual students, need more support with learning vocabulary. Before beginning the lesson, introduce or review key vocabulary with students. Posting visuals of key terms such as *greater*, *smaller*, *less*, *more*, and *the same* can support students throughout the lesson.

key words



- T: How many extra ones do you both have?
S: 7.
T: Is 7 more than 7?
S: No!
T: Is 10 more than 10?
S: No!
T: What should we say about 17 and 17?
S: They're the same! They're equal!

Continue in this manner but without the cubes and personal white boards. Draw two number bonds on the board. Fill one number bond in with 19 decomposed, showing 10 ones as one part. Fill the other number bond with 16 decomposed, showing 10 ones as one part.

- T: (Point to 19.) What is the missing part?
S: 9.
T: (Fill in 9.)
T: (Point to 16.) What is the missing part?
S: 6.
T: (Fill in 6.)
T: Compare the extra ones. Which number is more?
S: 19.
T: We are using what we know about comparing the numbers less than 10 to compare numbers that are more than 10.
T: Talk to your partner about that.
S: I know 5 is more than 4, so I know 10 ones and 5 ones is more than 10 ones and 4 ones. → I know that 5 is less than 8, so ten 5 is less than ten 8. → I know that 6 equals 6, so ten 6 equals ten 6. → I know that 10 ones is the same, so it's like both numbers have it. So, it doesn't tell which one is larger or smaller.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Consider having partners show the teen numbers on their hands. One partner can show 10 while the other shows the remaining part. This kinesthetic activity supports engagement and provides a connection between the pictorial model and the concrete representation.

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Note: This work, like many of the lessons in this module, allows students to see the relevance of numbers to 10 as they apply to larger numbers. Students stand on the shared structure of the ten in two teen numbers and simply compare the ones to see which number is greater. This bridges to Grade 1 content (**1.2E**).



Student Debrief (7 minutes)

Lesson Objective: Decompose teen numbers as 10 ones and some ones; compare *some ones* to compare the teen numbers.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- What was today’s lesson about?
- How do you know 11 is less than 15?
- Read each comparison from the Problem Set the Say Ten way and then the regular way. For example, “Ten 3 is more than ten 2. 13 is more than 12. Ten 1 is less than ten 4. 11 is less than 14.”
- What do you think I wanted you to learn from the lesson?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students’ understanding of the concepts that were presented in today’s lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name Elvia Date _____

(Circle) 10 erasers. (Circle) 10 pencils. Match the extra ones to see which group has more. ✓ Check the group that has more things.

(Circle) 10 sandwiches. (Circle) 10 milk cartons. ✓ Check the group that has less things.

(Circle) 10 baseballs. (Circle) 10 gloves. Write how many are in each group. ✓ Check the group that has more things.

(Circle) 10 apples. (Circle) 10 oranges. Write how many are in each group. ✓ Check the group that has less.

(Circle) 10 spoons. (Circle) 10 forks. Write how many are in each group. Circle more, less, or equal.

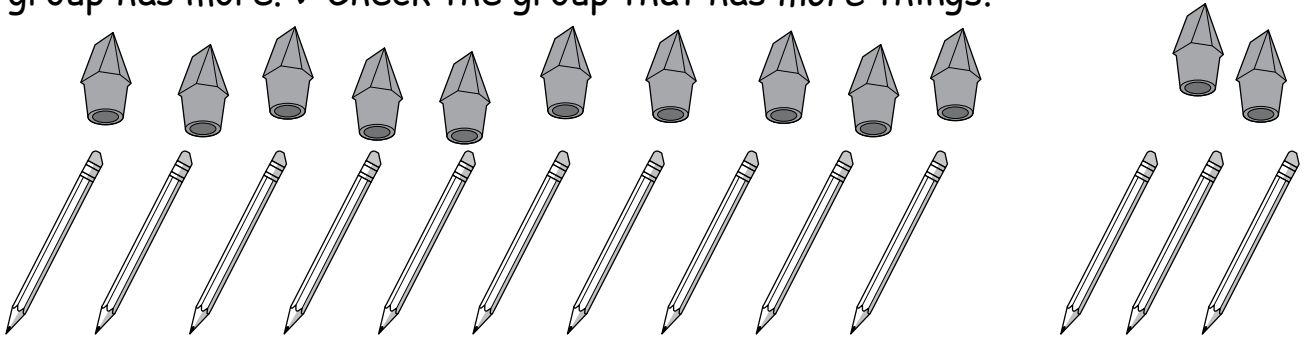
19 is $\frac{\text{more}}{\text{equal}} \frac{\text{less}}{\text{less}}$ than 18



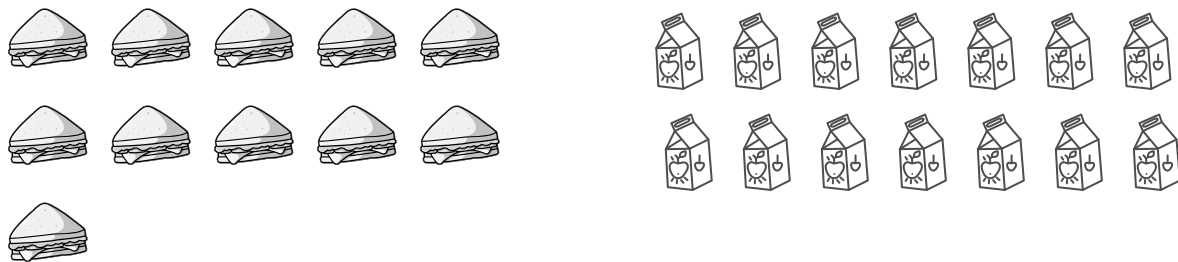
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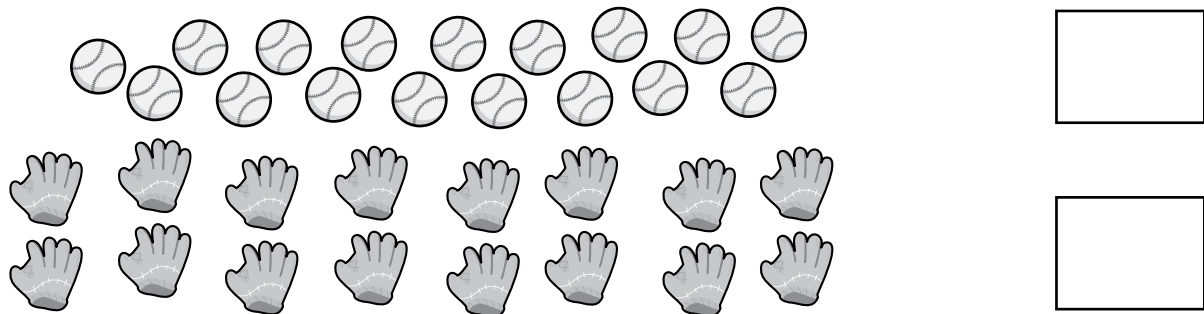
Circle 10 erasers. Circle 10 pencils. Match the extra ones to see which group has more. ✓ Check the group that has *more* things.



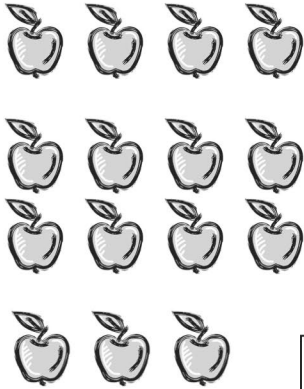
Circle 10 sandwiches. Circle 10 milk cartons. ✓ Check the group that has *less* things.

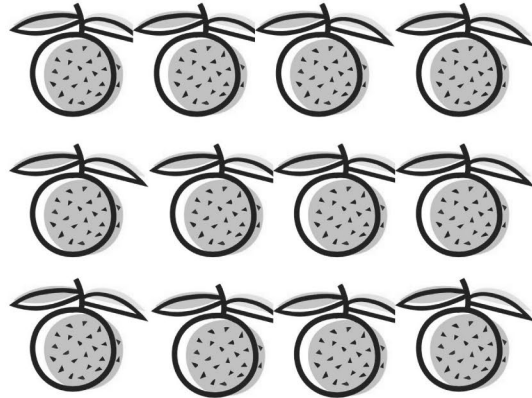


Circle 10 baseballs. Circle 10 gloves. Write how many are in each group. ✓ Check the group that has *more* things.

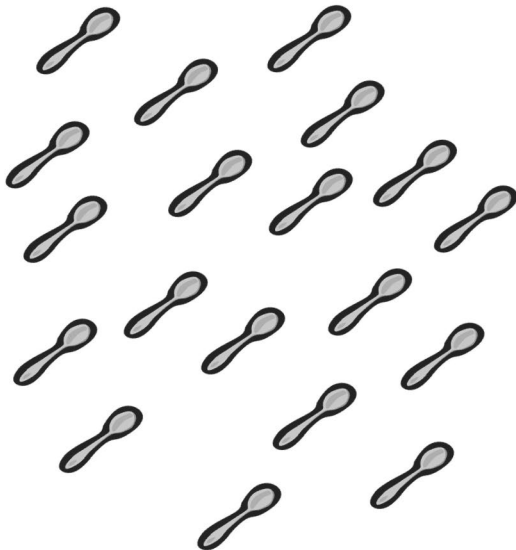


Circle 10 apples. Circle 10 oranges. Write how many are in each group.
 ✓ Check the group that has *less*.





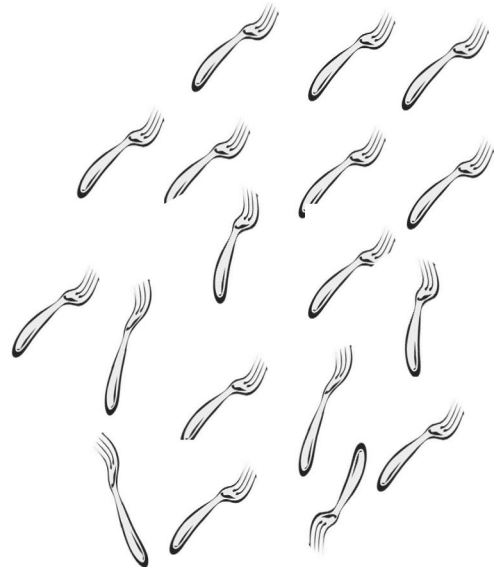
Circle 10 spoons. Circle 10 forks. Write how many are in each group.
 Circle *more*, *less*, or *equal*.



is

more
less
 equal

than




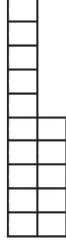
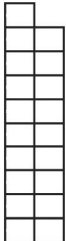



Name _____

Date _____

Count and write the number.
Circle more, less, or equal.

<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<u>more</u>	
1	is less	than 4
	<u>equal</u>	

	<u>more</u> <u>less</u> _____ is equal than _____	
	<u>more</u> <u>less</u> _____ is equal than _____	
	<u>more</u> <u>less</u> _____ is equal than _____	

Name _____

Date _____

Fill in the number bond.
Check the group with *more*.

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<div style="text-align: center; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">16</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">10</div> <div style="border: 1px solid black; width: 40px; height: 40px;"></div> </div> </div> <div style="text-align: center;"> XXXXX XXXXX OOOOO O </div>	<div style="text-align: center; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">17</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">10</div> <div style="border: 1px solid black; width: 40px; height: 40px;"></div> </div> </div> <div style="text-align: center;"> XXXXX XXXXX OOOOO OO </div>
<div style="text-align: center; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">13</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px;"></div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">3</div> </div> </div> <div style="text-align: center;"> XXXXX XXXXX OOO </div>	<div style="text-align: center; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">11</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">10</div> <div style="border: 1px solid black; width: 40px; height: 40px;"></div> </div> </div> <div style="text-align: center;"> XXXXX XXXXX O </div>
<div style="text-align: center; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"></div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">10</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">2</div> </div> </div> <div style="text-align: center;"> XXXXX XXXXX OO </div>	<div style="text-align: center; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"></div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">10</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">10</div> </div> </div> <div style="text-align: center;"> XXXXX XXXXX OOOOO OOOOO </div>

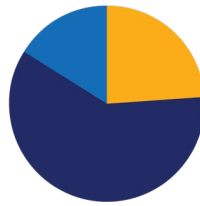


Lesson 24

Objective: Reason about and represent situations, decomposing teen numbers into 10 ones and some ones and composing 10 ones and some ones into a teen number.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Concept Development	(30 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- Number Bonds of Eight **K.5A, K.2I** (4 minutes)
- Matching Dot and Number Cards **K.2D, K.2E** (8 minutes)

Number Bonds of Eight (4 minutes)

Materials: (T) Dot cards of 8 (Lesson 6 Fluency Template)

Note: This fluency activity gives students an opportunity to develop increased familiarity with compositions of eight and review number bonds.

Show a dot card, and indicate 7 and 1 as parts.

- T: Say the larger part. (Give students time to count).
 S: 7.
 T: Say the smaller part.
 S: 1.
 T: What is the total number of dots? (Give time to count.)
 S: 8.
 T: Say the number sentence.
 S: 7 and 1 makes 8.
 T: Flip it.
 S: 1 and 7 makes 8.

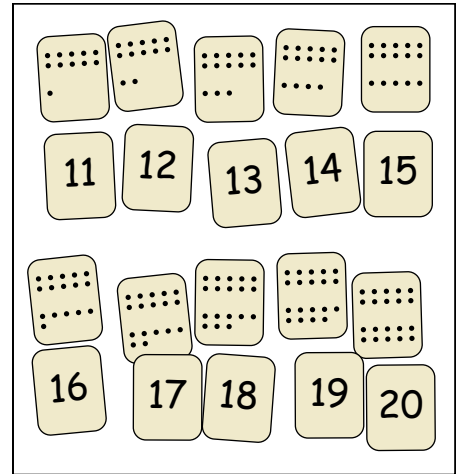
Continue with cards illustrating the number bonds of 5 and 3, 4 and 4, 6 and 2, and 8 and 0.

Matching Dot and Number Cards (8 minutes)

Materials: (S) Teen numeral and dot cards (Lesson 14 Template) (per pair; pictured below)

Note: This activity connects the pictorial representations of teen numbers with the abstract numerals and reinforces teen numbers as 10 ones and some additional ones.

- T: Put your number cards in order from least to greatest.
 T: Match each number card to a dot card.
 T: Talk to your partner. What do you notice about your dot cards and your number cards?
 S: They all have ten dots. → They all have ones that show the ten. → They all have an extra dot that tells how many extra ones weren't part of the ten ones. → All the dot cards have two parts, and the numbers have two numbers. → Yeah, one of the numbers is one of the parts of the dots.



Concept Development (30 minutes)

Materials: (T) 12 pieces of red construction paper (S) Picture and word problem (Template), number bond (Lesson 7 Template) within a personal white board

Note: The following problems are solved using counting and students' knowledge of decomposing and composing teen numbers. Although addition sentences are included in students' solutions, in this instance, they are another record of the decomposition or the composition of the total that the student counted to find rather than a means of solving the problem. Note that the problems do not ask "How many?" or "How many in all?"

- T: (Show 12 pieces of red construction paper in one line, perhaps taped to the board.) Count with me.
 S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
 T: Draw and show the 12 papers as 10 ones and some ones.
 S: Should we draw a number bond?
 T: You can draw a picture and make a number bond.
 S: Can we write a number sentence?
 T: That is another good way to show what twelve is made of.
 T: (After working.) Share with your partner how you showed 10 red papers and some more papers.
 T: What parts did you break 12 into?
 S: 10 and 2.
 T: What number sentence did you use to show that?
 S: $12 = 10 + 2$.
 T: Yes, 12 is 10 ones and 2 ones.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Some students, including some emergent bilingual students, need support with math talk. Provide them with sentence frames, such as the following:

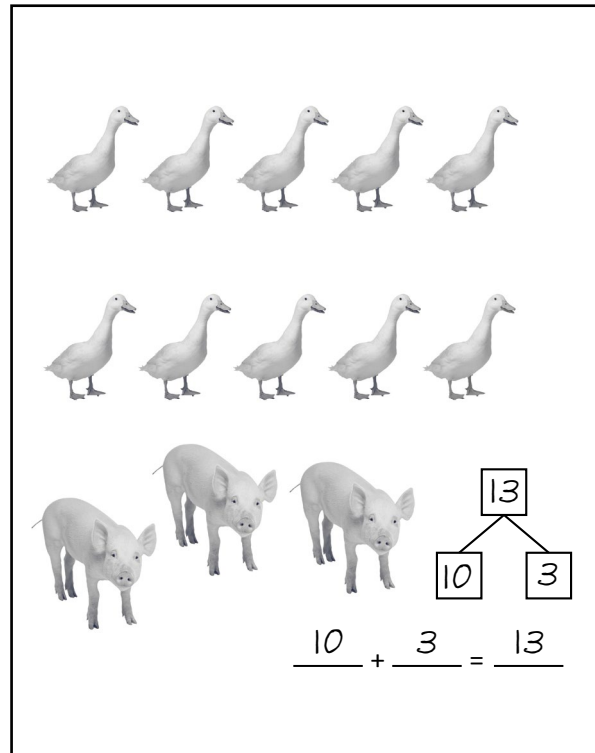
I see _____ (number) _____ (unit).

I see _____ (number) _____ (unit).

I see _____ (number) _____ (unit) in all.



- T: (Referring back to the red papers on the board.) What can I do with my papers to show that we made two parts?
- S: You could put space between the 10 ones and 2 ones.
- T: Okay, I'll do that. Yes, now we can see that 12 is 10 and 2.
- T: Let's do a different problem at a farm. (Pass out the picture and word problem.) Look at the picture with your partner. Talk about what you see.
- S: (After talking.) There are 10 geese and 3 pigs.
- T: You can see the parts, so let's put them together to find how many animals there are.
- T: Work with your partner to show ways to put those parts together.
- T: (Pause while students work.) What are some of the ways you put the two parts together?
- S: We showed a number bond. → We showed an addition sentence. → We got our place value cards.
- T: When you put the parts together, what was the total of your bond or number sentence?
- S: 13.
- T: What number sentence did you use to show that?
- S: $10 + 3 = 13$.
- T: Yes, that is how I think of it when I'm putting parts together. When I'm taking them apart, I say it this way: $13 = 10 + 3$. Talk to your partner about why you think I do that.
- S: One way starts with the big number. → When we put the ducks and the pigs together, we started with the parts. → Like with the animals, we could see the parts, so we wrote those first: $10 + 3 = 13$.
→ It's different with the red papers. → Yeah, like with the red papers, we counted all the papers first and then separated them: $12 = 10 + 2$.
- T: I showed the papers like this: $12 = 10 + 2$. And I showed the animals like this: $10 + 3 = 13$. Talk to your partner about why.
- S: The papers were all one color, so we had to find the 10 hiding. So, we started with counting all the papers. → Yeah, with the animals, I counted the pigs first and then the geese.



**NOTES ON
MULTIPLE MEANS
OF ACTION AND
EXPRESSION:**

Scaffold the lesson for students needing more proficiency practice by asking them to model with red and blue cubes before expecting them to model with a drawing.



T: So, with the animals, you thought about the parts first, and with the papers, you thought about the total first?

S: Yeah.

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Read the stories to them as they work. Because this Problem Set requires reading, it is a good idea to group students by performance level so the situations can be told to students in their small groups.

Student Debrief (8 minutes)

Lesson Objective: Reason about and represent situations, decomposing teen numbers into 10 ones and some ones and composing 10 ones and some ones into a teen number.


The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson. Any combination of the questions below may be used to lead the discussion.

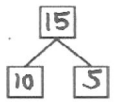
- Did you start by drawing the parts first or the total first in the story of Robin's apples? The toy trucks? The popcorn bags?
- Explain how your drawing relates to the number bond you wrote.
- Explain how the number sentence relates to the number bond and situation.
- Show how you wrote the number sentence for each situation and whether you started the sentence with the parts or the total. How did you choose your number sentence? Share your thinking.

Name Ben Date _____

Robin sees 5 apples in a bag and 10 apples in a bowl. Draw a picture to show how many apples there are.




Write a number bond and an addition sentence to match your picture.

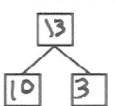


$$5 + 10 = 15$$

Sam has 13 toy trucks. Draw and show the trucks as 10 ones and some ones.




Write a number bond and an addition sentence to match your picture.

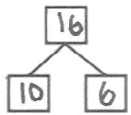


$$13 = 10 + 3$$

Our class has 16 bags of popcorn. Draw and show the popcorn bags as 10 ones and some ones.



Write a number bond and an addition sentence to match your picture.



$$16 = 10 + 6$$


Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

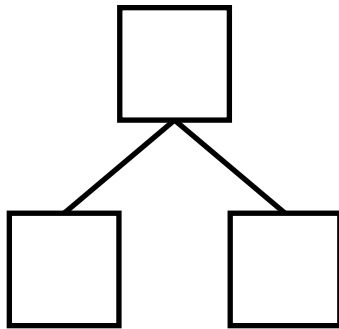


Name _____

Date _____

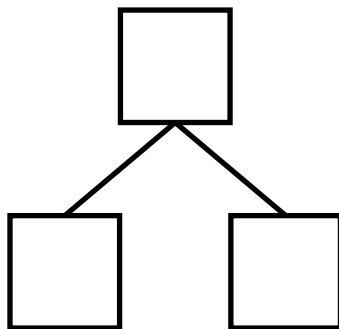
Robin sees 5 apples in a bag and 10 apples in a bowl. Draw a picture to show how many apples there are.

Write a number bond and an addition sentence to match your picture.



Sam has 13 toy trucks. Draw and show the trucks as 10 ones and some ones.

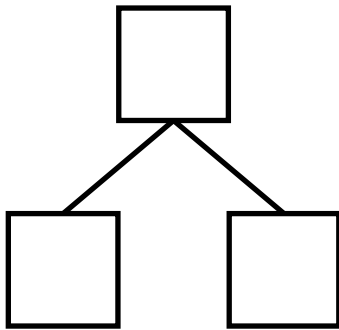
Write a number bond and an addition sentence to match your picture.





Our class has 16 bags of popcorn. Draw and show the popcorn bags as 10 ones and some ones.

Write a number bond and an addition sentence to match your picture.

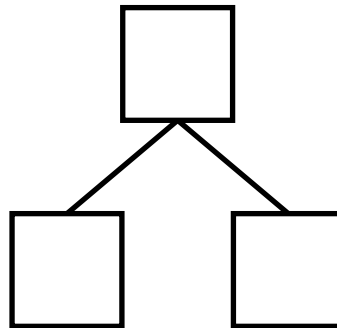


Name _____

Date _____

There are 12 balls. Draw and show the balls as 10 ones and some ones.

Write a number bond to match your picture.



Write an addition sentence to match your number bond.



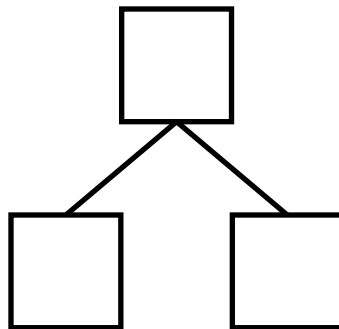
Name _____

Date _____

Bob bought 7 sprinkle donuts and 10 chocolate donuts. Draw and show all of Bob's donuts.

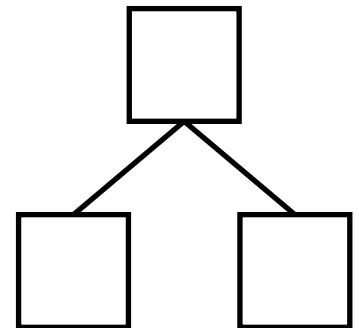
Write an addition sentence to match your drawing.

Fill in the number bond to match your sentence.

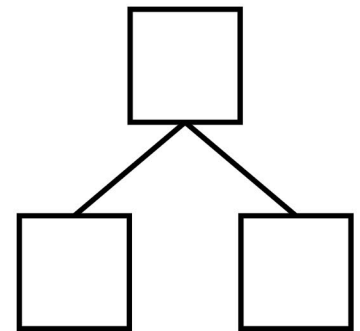
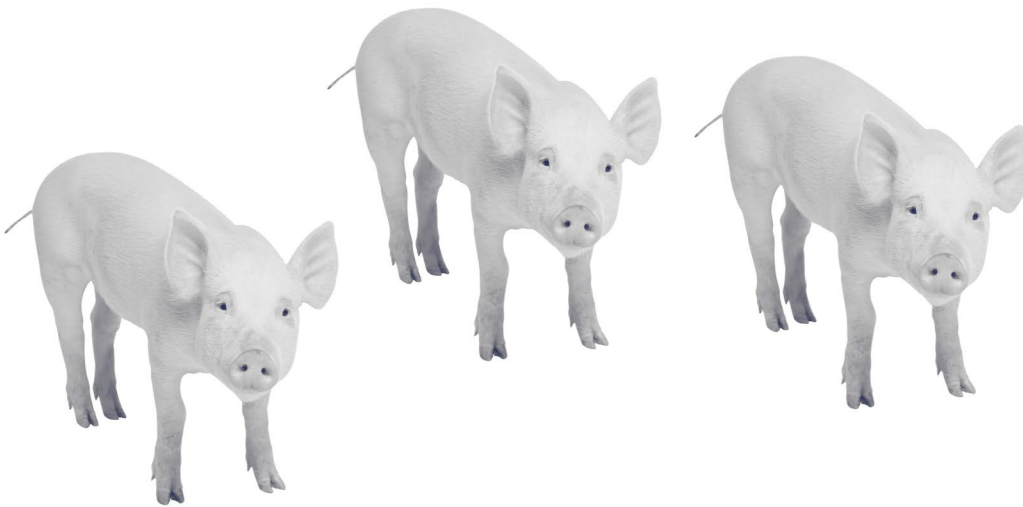
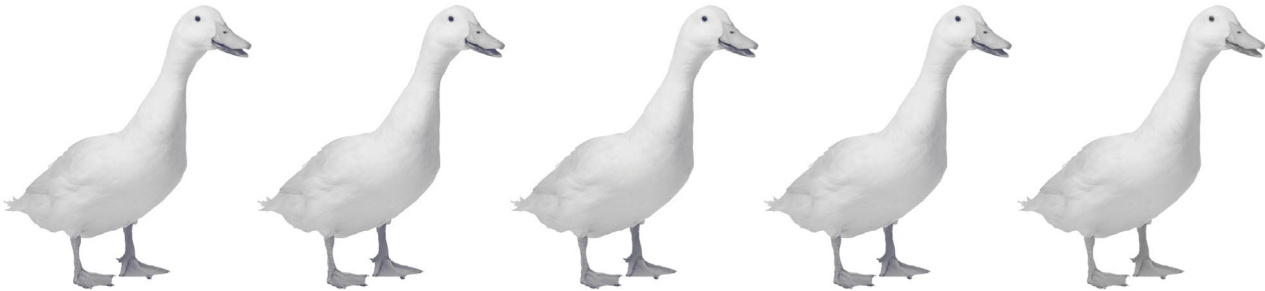
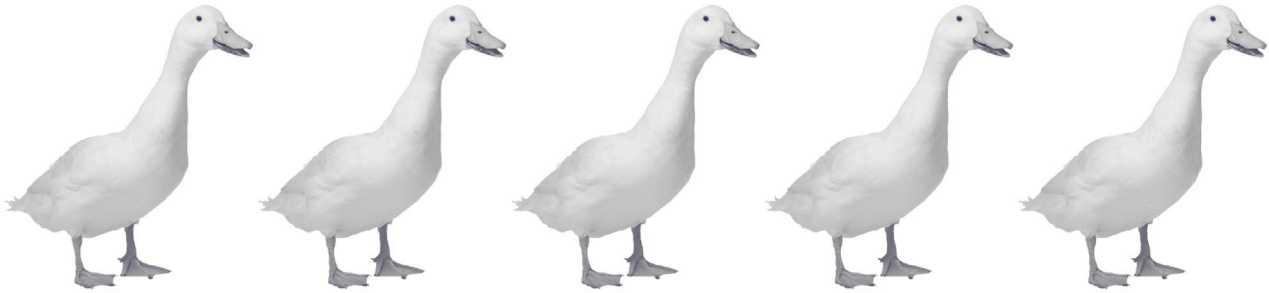


Fran has 17 baseball cards. Show Fran's baseball cards as 10 ones and some ones.

Write an addition sentence and a number bond that tell about the baseball cards.

**Lesson 24:**

Reason about and represent situations, decomposing teen numbers into 10 ones and some ones and composing 10 ones and some ones into a teen number.



picture and word problem



Topic F

Understanding Work

K.4A, K.9A, K.9B, K.9C, K.9D

Focus Standards:	K.4A	Identify U.S. coins by name, including pennies, nickels, dimes, and quarters.
	K.9A	Identify different ways to earn income.
	K.9B	Differentiate between money received as income and money received as gifts.
	K.9C	List simple skills required for jobs.
	K.9D	Distinguish between wants and needs and identify income as a source to meet one's wants and needs.
Instructional Days:	3	
Coherence -Links to:	G1–M6	Place Value, Comparison, Understanding Income With Addition and Subtraction to 100

In Topic F, students receive their first exposure to how people acquire and use money. They use financial literacy vocabulary in word problems and use number bonds to find sums and differences to 10.

In Lesson 25, students learn to recognize dimes and quarters. They compare both the dime and quarter to coins they already know—the penny and nickel (**K.4A**). They learn coins are a type of money that people use to buy things. Students then explore two ways that people acquire money. They discover money can be earned as income or received as a gift (**K.9B**).

In Lesson 26, students take a deeper look at income. They recognize that people have jobs to earn income (**K.9A**), and they learn that both educational and physical skills are required to perform a job well (**K.9C**). In Lesson 27, students differentiate between wants and needs (**K.9D**) while recognizing that these distinctions vary by family and circumstance.



A Teaching Sequence Toward Proficiency in Understanding Work

Objective 1: Understand gifts, income, and ways to earn income.
(Lesson 25)

Objective 2: Define jobs as sources of income.
(Lesson 26)

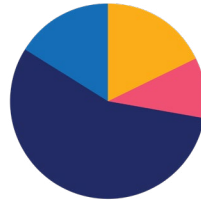
Objective 3: Understand the difference between needs and wants.
(Lesson 27)

Lesson 25

Objective: Understand gifts, income, and ways to earn income.

Suggested Learning Structure

- Fluency Practice (9 minutes)
- Application Problem (5 minutes)
- Concept Development (28 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)**



Fluency Practice (9 minutes)

- Read the Picture Graph **K.4A, K.8C** (5 minutes)
- Say the Number **K.2F** (4 minutes)

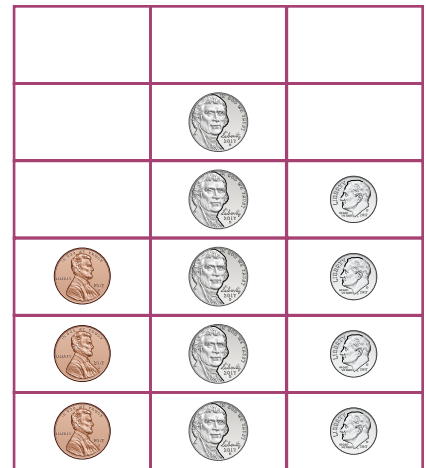
Read the Picture Graph (5 minutes)

Materials: (T) Coins table (Lesson 25 Fluency Template) or a re-creation of the graph with coins

Note: This fluency activity maintains students’ understanding of representing and interpreting data in real-object and picture graphs.

Display Lesson 25 Fluency Template or your re-creation of the graph. Begin by asking students how to label each column on the graph. Once the graph is labeled, ask the following questions:

- Which group has the most coins? How do you know?
- Are there fewer pennies or dimes? How do you know?
- How many dimes and nickels are there in all?
- How many more nickels are there than pennies?
- How many coins are there in all?
- If there was one more penny, how many would there be?
- If there were two fewer dimes, how many would there be?



Say the Number (4 minutes)

Note: This activity maintains students' ability to say, with automaticity, the number that is one or two more, or one or two less, than a given number.

T: I'll say a number. You say the number that is one more.

T: 4.

S: 5.

Continue saying numbers to 20 in random order.

T: I'll say a number. You say the number that is one less.

T: 4.

S: 3.

Continue with numbers to 20 in random order.

T: I'll say a number. You say the number that is two more.

T: 4.

S: 6.

Continue with numbers to 20 in random order.

T: I'll say a number. You say the number that is two less.

T: 4.

S: 2.

Continue with numbers to 20 in random order

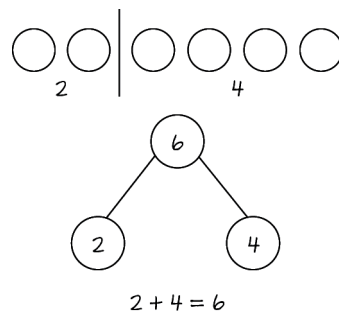
Application Problem (5 minutes)

Shana has 2 pennies. She gets 4 more pennies.

How many pennies does Shana in all?

Draw a picture or a number bond to match.

Finish the sentence. Shana has _____ pennies in all.



Shana has 6 pennies in all.



**NOTES ON
MULTIPLE MEANS
OF ACTION AND
EXPRESSION:**

Support students to express learning in flexible ways. Invite them to keep track of the count on their fingers. If they count the Math Way, they will see the quantity growing steadily from left to right.



Concept Development (28 minutes)

Materials: (T) Collection of U.S. coins for display, “How We Get Money” chart; (S) 1 penny, nickel, dime, and quarter (real or plastic) per student, personal white board

Part 1: Identify coins.

- T: (Distribute 1 penny and 1 nickel to each student.) What are the names of these coins?
- S: The brown one is a penny. → The silver coin is a nickel.
- T: Coins are a type of money. What do we use money for?
- S: We buy things with money. → It’s used to pay for things in stores. → We trade money for things we need or want.
- T: Show me the penny.
- S: (Show.)
- T: Show me the nickel.
- S: (Show.)
- T: How are a penny and a nickel alike? How are they different?
- S: They are both round. → Both have a person’s head on one side. → Both have a building on the back. → The penny is brown, and the nickel is silver. → The nickel is bigger than the penny. → They have different pictures on both sides.
- T: Place your money in front of you.
- S: (Place coins.)
- T: (Display or distribute a dime to each student.) This is another coin that is used in the United States. Compare it to the penny and nickel. How is it alike? How is it different?
- S: It is round like the other coins. → It is the same color as the nickel. → It has a head on one side like the penny and nickel. → It is smaller than the other coins. → It is a different color than the penny. → The penny and nickel have a smooth edge. This coin has ridges on the edge. → This coin doesn’t have a building on the back.
- T: This smaller coin is called a **dime**. Hold up a dime and tell your partner, “This is a dime.”
- S: (Tell.)
- T: (Display or distribute a quarter to each student.) Now look at this coin. It is also used in the United States. Compare it to the other coins. How is it alike? How is it different?
- S: It is a circle like the other coins. → It has a head on one side like the other coins. → The back of this coin has a bird. → It is the same color as the nickel and dime. → It has ridges on the edge like the dime.
- T: This coin is called a **quarter**. Hold up a quarter and tell your partner, “This is a quarter.”
- S: (Tell.)



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Show and name coins from countries represented by students in the class and their families. Compare the coins to their analogue in U.S. currency. Native English speakers’, and some emergent bilingual students’, understanding of coins and money usage is supported through such connections.





- T: Turn your coins face up so you can see each person's head on the coins.
- S: (Turn coins heads up.)
- T: Point to each coin and tell your partner its name.
- S: (Tell.)
- T: Now turn your coins over so you can't see the heads anymore.
- S: (Turn.)
- T: Point again and tell your partner the names of the coins.
- S: (Tell.)

Part 2: Define gifts and income.

Note: As students offer responses, record them in an unsorted list. Prompt students so the list ultimately includes jobs adults have, jobs children have, and gifts of money. Students will help sort the list during the discussion. Consider using icons to make the chart more accessible to beginning readers.

- T: Most people trade money for things they need to buy, so most people need to have money. Let's make a list. In what ways might people get money? Record student responses in an unsorted list.
- S: My dad cooks in a restaurant to get money. → My mother works in a store. → Sometimes we have a garage sale. → My uncle drives people places in his car. → My aunt teaches in a school. → My older sister babysits. → My brother walks dogs for the neighbors. → I get some money for doing extra chores at home. → My neighbor pays me to take care of their fish when they are on vacation. → My grandma sends me money on some holidays. → I got some money as a gift for my birthday.

How We Get Money	
Income 	Gifts 

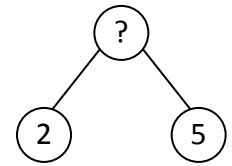
- T: (Display the chart.) In our list, I see many ways people get money for doing a job or selling something. We say that this money is **earned** money. The money people earn is called **income**. Our list shows another way people get money. Money can be given, not earned. This money is a gift. So, let's sort our list into two categories; income and gifts.
- T: Which of these ways of getting money belong in the Income column? Turn and talk.
- S: Working in a restaurant is a job. That is income. → The chores I do at home should be in the Income column.

Continue until all sources of income are placed in the chart. Repeat the sequence for gifts of money.

Part 3: Use financial literacy vocabulary in word problems.

- T: (Display an empty number bond.) Let's solve a story problem. Ben Smith is in second grade. He gets 5 dollars for his birthday. Ben gets 2 dollars when he feeds his neighbor's cat.
- T: Which money in the story did Ben earn as income? How do you know?
- S: The money he got for feeding the cat is income. → He earned 2 dollars. → He worked to get the money.

T: Draw a number bond on your white board. In one of the parts of the number bond, write the money Ben earned.



S: (Write.)

T: Which money in the story did Ben get as a gift?

S: The money he got for his birthday. → 5 dollars was a gift.

T: In the number bond, write the money Ben got as a gift. Work with your partner to find how much money Ben has in all.

S: Ben has 7 dollars in all.

T: Let's think about another money story. Kate earns 4 dollars for helping to clean the garage. Kate gives 2 dollars to her brother for his birthday. Which money was income? How do you know?

S: The money Kate got for helping to clean the garage. → 4 dollars in the story is income. → Kate worked when she cleaned the garage. → The money she got from working in the garage is income.

T: Which money was a gift?

S: The money Kate gave her brother for his birthday was a gift. → In the story, 2 dollars was a gift.

T: Work with your partner to find how much money Kate has left. Draw something to explain how you know.

S: (Students work to find Kate has 2 dollars left.)

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Student Debrief (8 minutes)

Lesson Objective: Understand gifts, income, and ways to earn income.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.



Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.



Any combination of the questions below may be used to lead the discussion.

- How are income and gifts of money different?
- Look at Problem 2. Why is 2 quarters a gift and 3 quarters income?


Name Kaylie Date _____


1. Circle the word that tells about the money.

a. Chris can wash the dishes. He gets 2 dollars.  

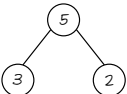
b. Dad gives Pat 2 dollars for his birthday.  

Use the number bond to solve.

2. Ben can sweep the floor. He gets 3 quarters. 

Ben gets 2 quarters for a gift. 

How many quarters does Ben have in all?

Ben has 5 quarters in all. 


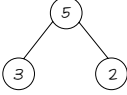


- Look at Problem 5. Which money is a gift? Which money is income? How do you know?
- Tell your partner a number story about income and gifts of money.

Exit Ticket (3 minutes)


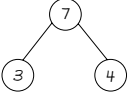
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

3. Pam sells cookies. She gets 5 nickels.
Pam spends 3 nickels.
How many nickels does Pam have left?

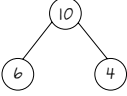
Pam has 2 nickels left.

4. Meg has 4 dimes.
She gets 3 more dimes.
Meg gives all her dimes to Sam.
How many dimes does Meg give Sam?

Meg gives 7 dimes to Sam.

5. Dan's mom gives him 6 dollars.
He helps his Dad and gets 4 dollars.
How much money does Dan have in all?



Dan has 10 dollars in all.

Name _____

Date _____

1. Circle the word that tells about the money.

a. Chris can wash the dishes. He gets 2 dollars.



Gift



Income

b. Dad gives Pat 2 dollars for his birthday.



Gift



Income

Use the number bond to solve.

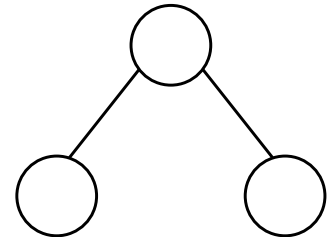
2. Ben can sweep the floor. He gets 3 quarters.

Ben gets 2 quarters for a gift.

How many quarters does Ben have in all?



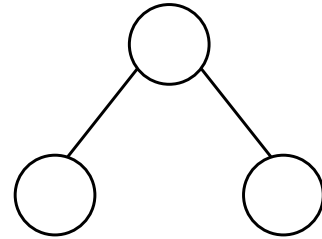
Ben has _____ quarters in all.



3. Pam sells cookies. She gets 5 nickels.

Pam spends 3 nickels.

How many nickels does Pam have left?



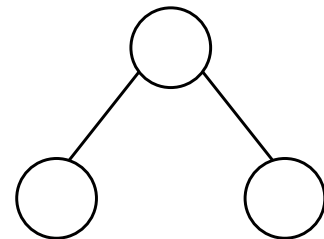
Pam has _____ nickels left.

4. Meg has 4 dimes.

She gets 3 more dimes.

Meg gives all her dimes to Sam.

How many dimes does Meg give Sam?

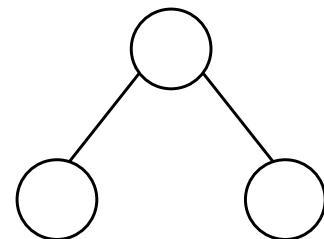


Meg gives _____ dimes to Sam.

5. Dan's mom gives him 6 dollars.

He helps his Dad and gets 4 dollars.

How much money does Dan have in all?



Dan has _____ dollars in all.

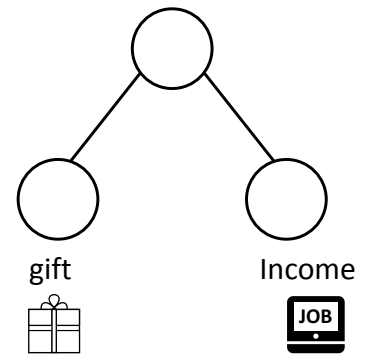
Name _____

Date _____

Write the numbers from the story to match the words in the number bond.

Jen gets 5 dollars for her birthday.

Jen works and gets 4 dollars.



How much money does Jen have in all? Write the answer in the number bond.

Finish the sentence.

Jen has _____ dollars in all.



Name _____

Date _____

1. Circle the word that tells about the money.

a. Tim's mom gives him 4 quarters.



Gift



Income

b. Deb can sweep. She gets 3 dollars.



Gift



Income

Solve. Use the number bond to show your thinking.

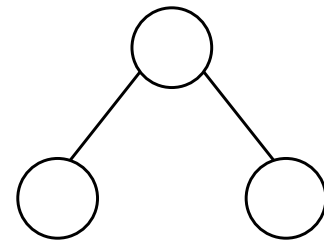
2. Pat has 5 pennies.



Mom gives Pat 3 pennies.

How many pennies does Pat have in all?

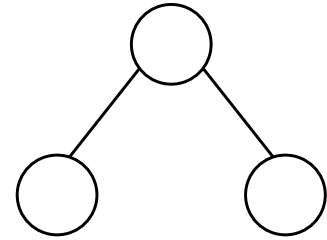
Pat has _____ pennies in all.



3. Josie walks the dog. She gets 6 quarters.

She gives away 3 quarters.

How much money does Josie have left?

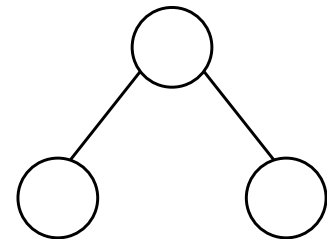


Josie has _____ quarters left.

4. Fran has 2 dimes.

Cal gives Fran 5 dimes.

How many dimes does Fran have in all?

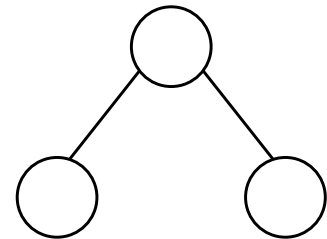


Fran has _____ dimes in all.

5. Jim earns 9 dollars.













He spends 3 dollars.

How much does Jim have left?



Jim has _____ dollars left.



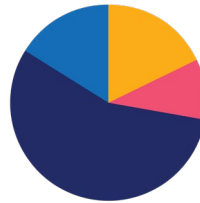


Lesson 26

Objective: Define jobs as sources of income.

Suggested Learning Structure

- Fluency Practice (9 minutes)
- Application Problem (5 minutes)
- Concept Development (28 minutes)
- Student Debrief (8 minutes)
- Total Time (50 minutes)**



Fluency Practice (9 minutes)

- Coin Flash **K.4A** (4 minutes)
- Read the Picture Graph **K.4A, K.8C** (5 minutes)

Coin Flash (4 minutes)

Materials: (T) 1 penny, 1 nickel, 1 dime, 1 quarter (plastic or real) or pictures of both sides of these coins

Note: The purpose of the activity is for students to practice identifying U.S. coins.

In random order, hold up the coins, showing one side or the other.

- T: What coin do you see?
- S: (Name coin.)

Repeat the process until all coins have been shown. Make sure to show the front of some coins and the back of other coins.

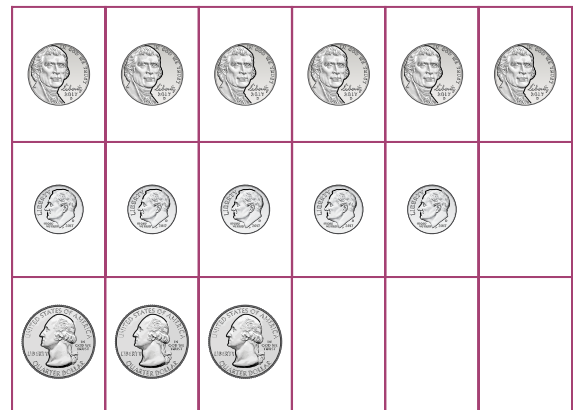
Read the Picture Graph (5 minutes)

Materials: (T) Coins graph (Lesson 26 Fluency Template) or a re-creation of the graph with real coins

Note: This fluency activity maintains students' understanding of representing and interpreting data in real-object and picture graphs.

Display Lesson 26 Fluency Template. Begin by asking students how to label each row on the graph. Once the graph is labeled, ask the following questions:

- Which coin is there the least of? How can you tell?
- Are there more nickels or dimes?

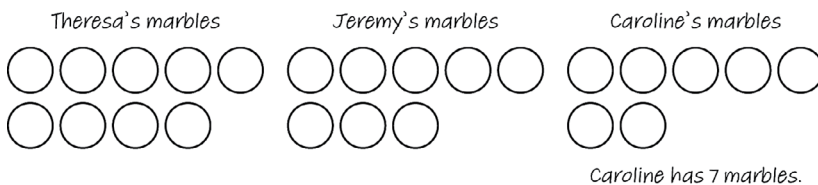


- How many dimes and quarters are there in all?
- How many more nickels are there than quarters?
- If there was one more quarter, would there be more dimes or quarters?
- If there were two fewer nickels, would there be more nickels or dimes?

Application Problem (5 minutes)

Theresa has 9 marbles.
 Jeremy has 1 less marble than Theresa.
 Caroline has 1 less marble than Jeremy.
 How many marbles does Caroline have?

Draw a picture to show your thinking.



Note: The purpose of this Application Problem is to reinforce students' knowledge of *1 less*.

Concept Development (28 minutes)

Materials: (T) Prepared chart

Part 1: List jobs and skills needed to do jobs.

Note: The list of jobs created during Part 1 of today's lesson will vary from class to class. The list should ultimately include jobs that children and adults can do to earn income. Kindergarten students will likely offer a wide range of ideas about skills used to do work. Formalize their knowledge as they offer it. The list of skills should include both educational skills as well as physical skills.

T: What jobs do we have in our classroom?



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Differentiate the Application Problem for students who need more proficiency practice by providing a 10-frame. Ask students who have demonstrated proficiency how many marbles Jeremy and Caroline have altogether.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students, including some emergent bilingual students, may need support with the multiple parts of the Application Problem. Ask them to practice telling a partner "1 less than 10 is 9," etc., as they separate a tower or a 10-frame. Practicing the language helps students to participate and to internalize the concepts being taught.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

The Personal Financial Literacy TEKS for Kindergarten suggest that students have opportunities to know about the skills needed for different types of work. One way for students to attain this learning is to invite adults or older students into the classroom to tell about the work they do. These in-person or virtual visits give students the opportunity to ask questions and learn about the educational and physical skills needed to succeed at various types of jobs. Hearing from visitors of different ages also allows Kindergarten students to begin to appreciate that income may be earned by younger people too. As a reminder, vet and preview the site prior to displaying for students.



- S: We have a line leader. → Somebody in our class waters the plants every day. → I am the fish feeder today. → We have table leaders who pass out our papers.
- T: Why do we have jobs in our classroom?
- S: The jobs help us stay safe. → The jobs help us keep our class neat. → We share the work and make sure the chores get done.
- T: Grown-ups and older students have jobs too. Why do these people have jobs? Turn and talk.
- S: People work for the police and fire department to help keep us safe. → People have different jobs to help get all the work done. → People work jobs to earn money.
- T: At a job, people do work to make money or earn income. Turn and remind your partner what *income* means.
- S: *Income* is money people earn for doing work.
- T: (Display the prepared chart with the headings *Jobs* and *Skills*.) Let’s make a list. What are some jobs that grown-ups or older children do to earn income?
- S: My dad is a waiter. → My aunt works with computers. → My mom is a teacher. → My sister is a doctor. → My cousin is a bus driver. → My mom is a dentist. → My dad works in an office. → My uncle fixes cars. → I take out the garbage at my house. → My sister babysits. → My brother takes care of people’s yards.
- T: (Add student responses to the prepared chart.)
To do a job well, people need to know how to do different kinds of things. The things that people know how to do are called **skills**. Many people go to school to learn their skills. Other people learn their skills while at their jobs.
- T: People need to know how to do things with their minds to do their jobs. For example, in almost every job people need to know how to read. You are learning to read in Kindergarten. This is a skill you will probably use in your job one day. People also need to know how to do things with their bodies to do their jobs. For example, many office workers need to know how to use their fingers to type on a computer keyboard. People who put roofs on houses need to know how to use their arms and legs to carry heavy materials safely.
- T: Let’s make a list of skills. What skills are needed for some of the jobs we have talked about? Are the skills things we do with our minds or our bodies?
- S: My dad has to know how to do math at his restaurant. Math is something he does with his mind. → My sister is a doctor so she knows lots of things about medicine. She uses her mind for that. → My brother has to know how to use his arms and legs to push the lawn mower and bag the leaves in the yards he takes care of. But he also has to know how the lawn mower works so he can fix it if it breaks. His skills use his mind and his body.
- T: (Add student responses to the prepared chart.) Having skills helps people do their jobs well, so they can earn income.

Jobs	Skills

Part 2: Use financial literacy vocabulary to solve story problems.



Problem 1:

Mrs. Green uses her skills to work at a store.

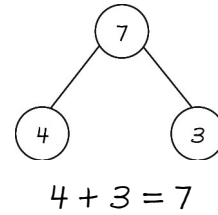
She works 4 hours on Monday.

She works 3 hours on Tuesday.

How many hours does she work in all?

T: Work with your partner to find how many hours Mrs. Green works in all. Draw a number bond and a number sentence to show your thinking.

S: (Work.)



Mrs. Green works 7 hours in all.

Problem 2:

Tom uses his skills to build 10 bikes.

He sells 5 bikes.

How many bikes does Tom have left?

T: Work with your partner to find how many bikes Tom has left.

S: (Work.)

Problem 3:

Chris uses his skills to make 6 rugs.

Some are red and the rest are green.

How many rugs could be red?

How many rugs could be green?

T: Work with your partner to find more than one number bond that tells about Chris's rugs.

S: (Work to show at least two number bonds depicting decompositions of 6.)

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted time. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first.

Student Debrief (8 minutes)

Lesson Objective: Define jobs as sources of income.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the following questions may be used to lead the discussion:

- Why might someone want a job?
- How does someone get, or earn an income?
- Look at Problem 3. What is Dan’s job? What skills does Dan need to do his job well? Which skills are things Dan will do with his mind? Which skills are things Dan will do with his body?
- Tell your partner about a job you might like to have when you grow up. What kinds of skills do you think you might need to do your job well?

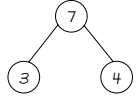
Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students’ understanding of the concepts that were presented in today’s lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name Jonah Date _____

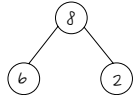
Solve. Use the number bond to show your thinking.

1. Dee works on cars.
On Monday she works on 3 cars.
On Tuesday she works on 4 cars.
How many cars does Dee work on in all?



Dee works on 7 cars in all.

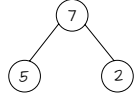
2. Jen works at a book shop.
She has 8 books on a shelf.
She sells 6 books.
How many books does Jen have left?



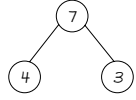
Jen has 2 books left.

3. Dan makes pots out of clay.
He makes 7 pots.
Some are big and the rest are small.
How many pots could be big?
How many pots could be small?

Dan makes 5 big pots and 2 small pots.



Dan makes 4 big pots and 3 small pots.




Name _____

Date _____

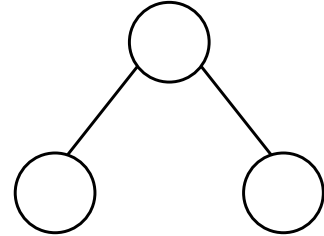
Solve. Use the number bond to show your thinking.

1. Dee works on cars.

On Monday she works on 3 cars.

On Tuesday she works on 4 cars.

How many cars does Dee work on in all?



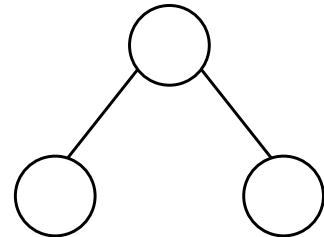
Dee works on _____ cars in all.

2. Jen works at a book shop.

She has 8 books on a shelf.

She sells 6 books.

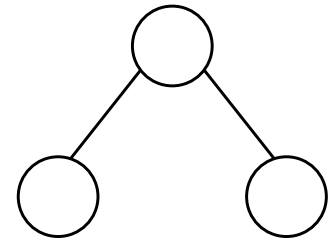
How many books does Jen have left?



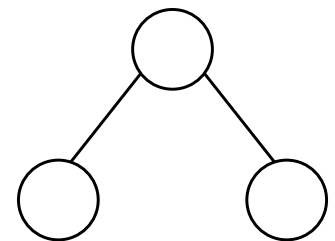
Jen has _____ books left.

3. Dan makes pots out of clay.
He makes 7 pots.
Some are big and the rest are small.
How many pots could be big?
How many pots could be small?

Dan makes _____ big pots and _____ small pots.



Dan makes _____ big pots and _____ small pots.



Name _____

Date _____

Joe sells plants at his job.

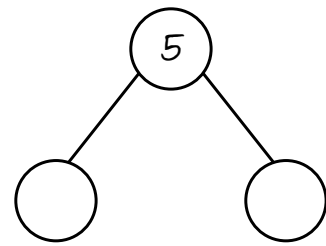
He sells 5 plants.

Some are tall and the rest are short.

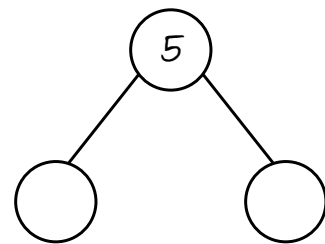
Use the number bonds to tell about the plants.

Write the numbers in the blanks.

Joe could sell _____ tall plants and _____ short plants.



Joe could sell _____ tall plants and _____ short plants.



Name _____

Date _____

Solve. Use the number bond to show your thinking.

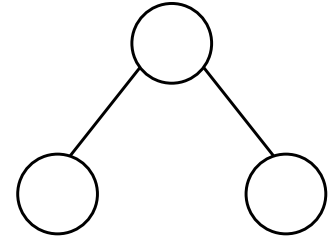
1. Meg works on cars.

On Monday, she works on 5 cars.

On Tuesday, she works on 3 cars.

How many cars does Meg work on in all?

Meg works on _____ cars in all.

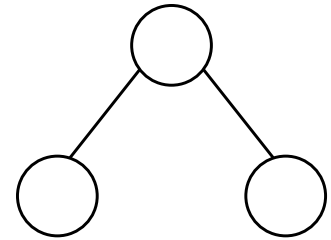


2. Jack builds 7 chairs.

He sells 3 chairs.

How many chairs does Jack have left?

Jack has _____ chairs left.



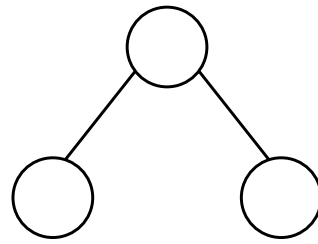
3. Clark sews 9 scarves.

Some are yellow and the rest are green.

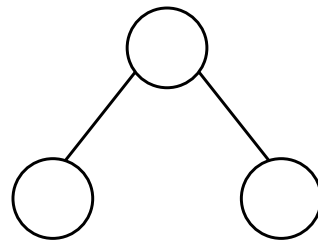
How many scarves could be yellow?

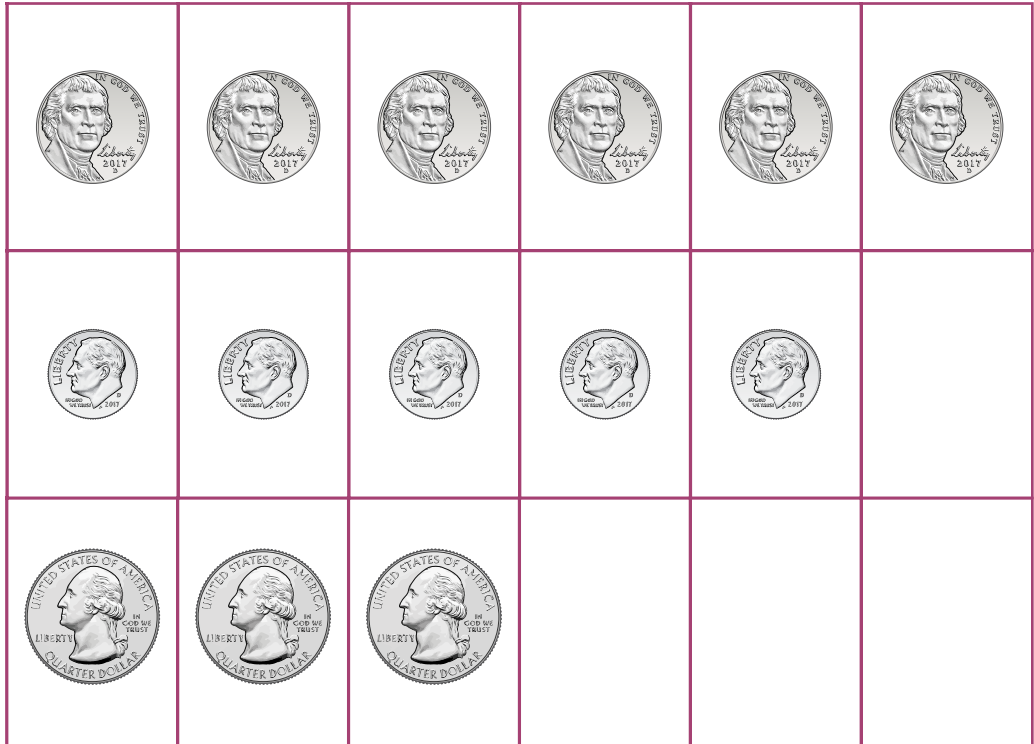
How many scarves could be green?

Clark could sew _____ yellow scarves
and _____ green scarves.



Clark could sew _____ yellow scarves
and _____ green scarves.



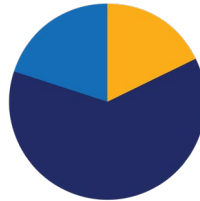


Lesson 27

Objective: Understand the difference between needs and wants.

Suggested Learning Structure

- Fluency Practice (9 minutes)
- Concept Development (31 minutes)
- Student Debrief (10 minutes)
- Total Time (50 minutes)**



Fluency Practice (9 minutes)

- Read the Picture Graph **K.4A, K.8C** (5 minutes)
- Say the Number **K.2F** (4 minutes)

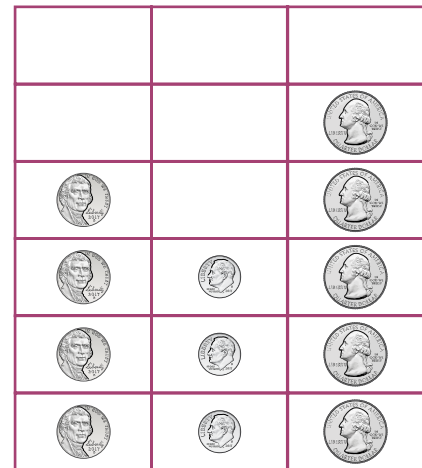
Read the Picture Graph (5 minutes)

Materials: (T) Coins graph (Lesson 27 Fluency Template) or a re-creation of the graph with real coins

Note: This fluency activity maintains students’ understanding of representing and interpreting data in real-object and picture graphs.

Display the Coins graph. Begin by asking students how to label each column on the graph. Once the graph is labeled, ask the following questions:

- How many dimes and nickels are there in all?
- How many more quarters are there than dimes?
- If there were one more nickel and one more dime, would there be more nickels or dimes?
- If there were one less dime and one less quarter, would there be more dimes or quarters?
- If there was one less quarter, would there be more dimes or quarters?
- If there were two more dimes, would there be more dimes or nickels?



Say the Number (4 minutes)

Note: This fluency activity maintains students' ability to say, with automaticity, the number that is one or two more, or one or two less, than a given number.

T: I'll say a number. You say the number that is 1 more.

T: 4.

S: 5.

Continue by presenting numbers out of sequence with numbers through 20.

T: I'll say a number. You say the number that is 1 less.

T: 4.

S: 3.

Continue with numbers through 20.

T: I'll say a number. You say the number that is 2 more.

T: 4.

S: 6.

Continue with numbers through 20.

T: I'll say a number. You say the number that is 2 less.

T: 4.

S: 2.

Continue with numbers through 20.

**NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:**

Consider presenting the information in another format. If a real staircase is available, invite students to take turns climbing while counting by using the language of *1 more* and *1 less*.

Concept Development (31 minutes)

Materials: (T) Lesson 27 Template 1, Lesson 27 Template 2 (cut into cards)

Note: Lesson 27 Template 2 purposefully includes ambiguous items. For example, a bike might be categorized as a want if the bike is used for recreation. However, a bike might also be categorized as a need if the bike provides necessary transportation. This ambiguity will enhance the discussion. Students should understand that wants and needs vary by family and circumstance.



Problem 1: Define *needs* and *wants*.

- T: (Display Lesson 27 Template 1.) These are things people might use their income to buy. How are these two groups the same? How are they different?
- S: Both sides have pictures of food, but the grocery bag on one side has vegetables, and the other side has a candy bar. → One side has things we have to buy, like food and clothes. The other side has things we like to buy, like games and candy bars.
- T: The left side shows things we must have to live. Things like healthy food and clothes are called **needs**. The right side shows things we might like to have but are not needed to keep us alive. Things like candy bars and board games are called **wants**. A candy bar is also food. Why is a candy bar a want and not a need for most people?
- S: Even though a candy bar is food, most people do not need it to stay alive. → We can eat fruits and vegetables to stay healthy, but we do not need to eat a candy bar. → My friend has a health problem, so he has to make sure he keeps some candy in his pocket. Candy is a need for him.
- T: Yes. People have different needs. Most people have to make choices to spend their income on things they need before they buy things they want.
- T: (Display a chart with two columns labeled *Needs* and *Wants*.) Let’s write the things we need on one side and the things that we might want on the other side. Are clothes a need or a want? Explain your thinking.
- S: Clothes are a need because clothes protect our bodies. → Clothes keep us warm, so we need them in the winter. → We have to wear clothes to school, so clothes are a need.
- T: (Write *Clothes* in the Needs column.) Where should we write *Games*? Why?
- S: We should write *Games* on the side for Wants. Games are fun, but we do not need them to stay alive.

Ways to Spend Money	
Needs	Wants



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Students, including some emergent bilingual students, can benefit from speaking with their peers at key points in the lesson before their classmates are asked for responses. An opportunity to turn and talk to a partner to discuss their understanding of wants and needs gives them a chance to practice their words and express their thinking, encouraging them to participate more fully in class discussions.

Continue to discuss the two remaining items. Write *Healthy food* in the Needs column and *Candy bars* in the Wants column.



Problem 2: Sort needs and wants.

- T: (Display images from Lesson Template 2.) I will show you a picture. You decide if it is something we need to buy with income or something we want to buy.
- T: This is a picture of a place to live or stay. Where should we place this picture? Why do you think so?
- S: People need a place to sleep, so it is a need. → People need a place to be out of the weather. I think it is a need.
- T: We need a place to live. There are lots of choices, and a house is one choice. (Place the image of the house in the needs column. Display the image of the chewing gum.) This is a picture of chewing gum. Is gum a need or a want? Why do you think so?
- S: Gum is a want. We do not need gum to live.
- T: (Place the image of the gum in the Wants column. Display the picture of the eyeglasses.) This is a picture of eyeglasses. Are eyeglasses a need or a want? Why?
- S: If you can't see, then glasses are a need. → I wear glasses to help me see. I need them.
- T: (Place the image picture of the eyeglasses in the Needs column. Display the picture of the water bottle.) This is a picture of water in a bottle. Is this a need or a want? Why?
- S: Everybody has to drink water to live, so it is a need. → We need water, but we do not always need a plastic water bottle. We can drink water out of a cup. Buying a water bottle could be a want.
- T: (Place the picture of the water bottle in the Needs column.) Because we all must drink water to live, let's place this picture on the side for Needs. (Display the picture of the bike.) Is a bike a need or a want?
- S: A bike is for fun, so it is a want. → My dad rides his bike to work, so he needs it. → My grandpa rides his bike every day because his doctor said he has to. I think a bike is a need.
- T: For someone who uses a bike to get to work or to stay healthy, a bike is a need. Many children who have a bike use it for fun. For most children, a bike would probably be a want. Let's put the picture of the bike on the line between the two columns.

Continue to sort the remaining items pictures from Lesson 27 Template 2. Encourage students to listen with empathy to all thinking about why an item is a need or a want.



Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted time. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first.

Student Debrief (10 minutes)

Lesson Objective: Understand the difference between needs and wants.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- I see some of you chose the car as a need. Others chose the car as a want. Explain your thinking.
- How can something be both a need and a want?
- People use income to buy both needs and wants. How can we decide if something is a need or a want?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name Jennifer Date _____

Draw a square around the needs.

Circle the wants.

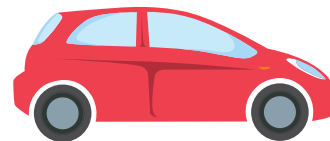
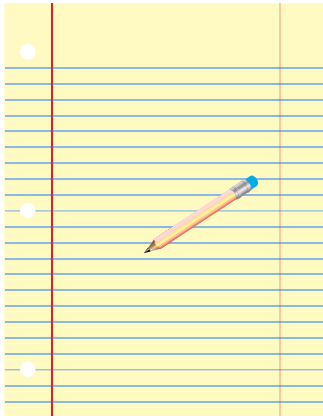


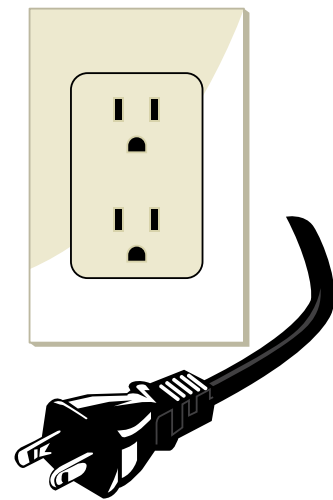
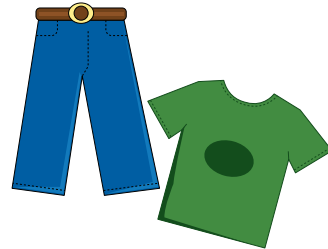
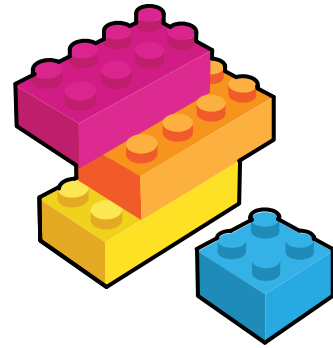
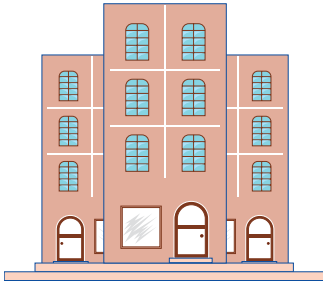
Name _____

Date _____

Draw a square around the needs.

Circle the wants.



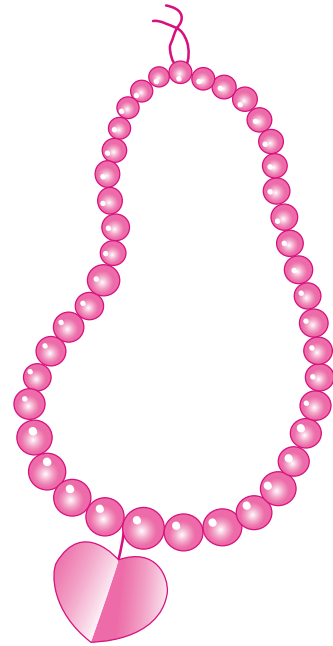
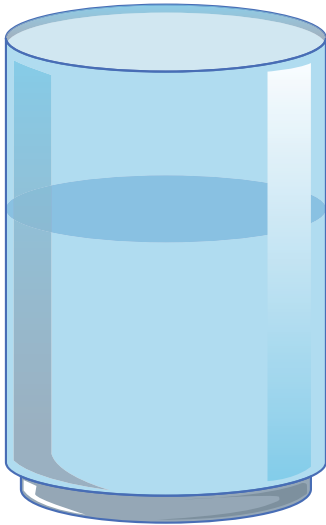


Name _____

Date _____

Draw a square around the needs.

Circle the wants.

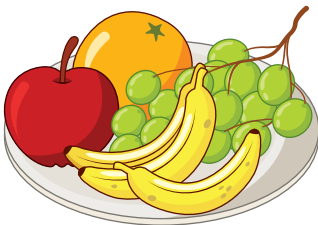
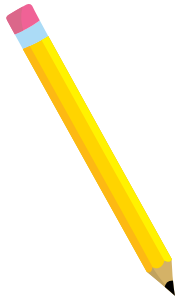
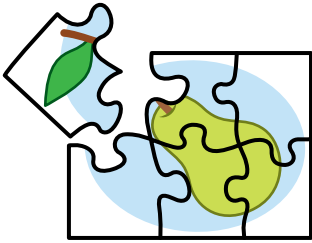


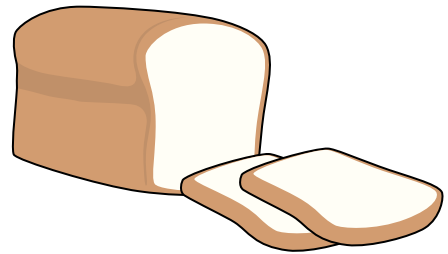
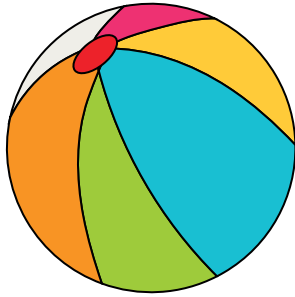
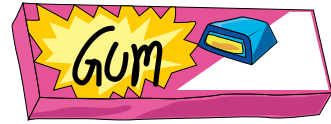
Name _____













Date _____

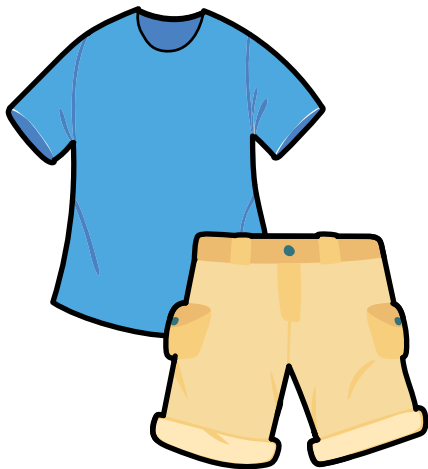
Draw a square around the needs.

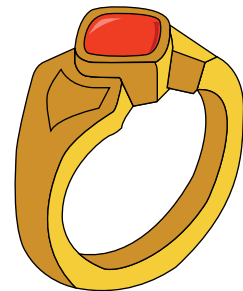
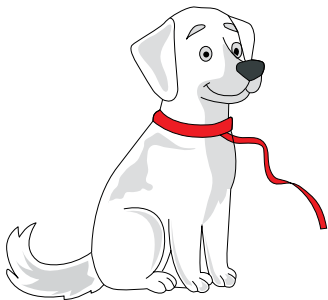
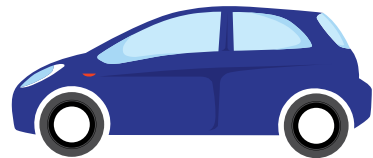
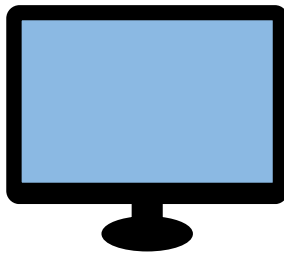
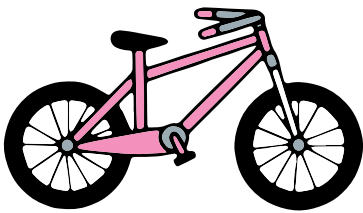
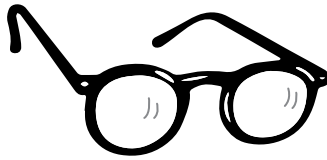
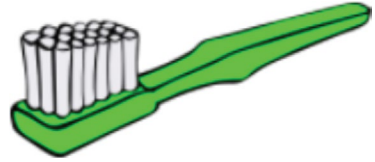
Circle the wants.











Answer Key

GRADE K • MODULE 5

Numbers 10–20, Counting to 100, and Understanding Work



Lesson 1

Problem Set

Footballs

Onions

Sticks

Soccer balls

4

10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Exit Ticket

Lightning bolts

1

10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Homework

Triangles – not circled

Circles – circled

Hearts – circled

Diamonds – circled

Triangles – not circled

Faces – 10 circled, 2 not circled

Suns – circled

Squares – circled

Lightning bolts – not circled

Cylinders – circled

Half-moons – not circled

Triangles – not circled

Circles – circled

Rectangular prisms – circled

Trapezoids – not circled

Hearts – not circled

Ovals – circled

Triangles – not circled

Hearts – circled

Triangles – circled

10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0



Lesson 2

Problem Set

10 rubber ducks checked; 3

10 gifts checked; 10, 6

10 pigs checked; 2

10 glasses checked; 10, 1

10 small circles and 2 small circles drawn in any configuration

10 ones and 4 ones drawn using lines, circles, or objects of choice

Student orally counts to themselves or to a partner; all happy faces are crossed off. 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Exit Ticket

10 ones and 3 ones

10 ones and 5 ones

10 ones and 10 ones

10 ones and 2 ones

Student orally counts to themselves or to a partner; all happy faces are crossed off. 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0

Homework

2 more circles drawn

3 more half-moons drawn

1 more heart drawn

5 more faces drawn

Student orally counts to themselves or to a partner; all hearts are crossed off. 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0



Lesson 3

Problem Set

10 ice cream cones circled; 5

10 peppers circled; 10, 3

10 apples circled; 10, 2

2 groups of 10 pushpins circled; 10, 10

13 things drawn, 10 circled

18 things drawn, 10 circled

Exit Ticket

10 hearts circled; 3

16 objects drawn, 10 circled

Homework

10 ducks circled; 2

10 diamonds circled; 10, 8

10 faces circled; 4

10 watering pails circled; 10, 1



Lesson 4

Problem Set

10 circles drawn; 3 circles drawn

10 circles drawn; 7 circles drawn

10 circles drawn; 2 circles drawn

10 circles drawn; 9 circles drawn

Exit Ticket

1

10, 5

5

10, 7

Homework

10 1

10 2

10 3

10 6

10 10



Fluency Template 2

10 triangles circled

10 circles circled

10 hearts circled

10 diamonds circled

10 triangles circled

10 faces circled

10 suns circled

10 squares circled

10 lightning bolts circled

10 cylinders circled

10 half-moons circled

10 triangles circled

10 circles circled

10 rectangular prisms circled

10 trapezoids circled

10 hearts circled

10 ovals circled

10 triangles circled

10 hearts circled

10 triangles circled



Lesson 5

Problem Set

10 umbrellas circled; 3 checked; ten three

10 kittens circled; 4 checked; ten four

2 groups of 10 pineapples circled; two ten

10 bananas circled; 7 checked; ten seven

10 hot dogs circled; 1 checked; ten one

Exit Ticket

3; 5

10, 7; 10, 8; 10, 9

Homework

10, 1; 10, 3

10, 4; 10, 6

10, 5; 10, 7

10, 0; 10, 2

10, 8; 10, 10



Fluency Template 2

10 triangles circled

10 circles circled

10 hearts circled

10 diamonds circled

10 triangles circled

10 faces circled

10 suns circled

10 squares circled

10 lightning bolts circled

10 cylinders circled

10 half-moons circled

10 triangles circled

10 circles circled

10 rectangular prisms circled

10 trapezoids circled

10 hearts circled

10 ovals circled

10 triangles circled

10 hearts circled

10 triangles circled



Lesson 6

Problem Set

10 dots, 5 dots; 15

10 dots, 8 dots; 18

10 dots, 6 dots; 16

Exit Ticket

10 dots and 4 dots drawn; 14

14 objects drawn and 10 circled

Homework

10 dots, 2 dots; 12

10 dots, 7 dots; 17

10 dots, 9 dots; 19

10 dots, 4 dots; 14



Lesson 7

Problem Set

0

11, 10, 1

12, 10, 2

10, 3

14, 10, 4

15, 10, 5

10, 6

17, 10, 7

18, 10, 8

19, 10, 9

10, 10

10 smiley faces circled; 13; 10, 3

Exit Ticket

1

10, 4

17; 10, 7



Homework

8

7

10, 6

10, 5

14; 10, 4

13; 10, 3

10, 2

10, 1

10; 10, 0



Lesson 8

Problem Set

10 dots drawn the 5-group way and 1 more

10 dots drawn the 5-group way and 8 more

10 dots drawn the 5-group way and 5 more

10 dots drawn the 5-group way and 4 more

10 dots drawn the 5-group way and 2 more

10 dots drawn the 5-group way and 7 more

20 dots drawn the 5-group way

10 dots drawn the 5-group way and 3 more

Exit Ticket

10 dots drawn the 5-group way and 6 more

10 cubes and 2 cubes colored in

Homework

10 dots drawn the 5-group way and 5 more

10 dots drawn the 5-group way and 3 more

10 dots drawn the 5-group way and 7 more

10 dots drawn the 5-group way and 1 more

10 dots drawn the 5-group way and 2 more

10 dots drawn the 5-group way and 6 more

20 dots drawn the 5-group way

10 dots drawn the 5-group way and 4 more

Fluency Template

15 11 19

14 18 16

12 13 17



Lesson 9

Problem Set

10 circles drawn; 2 circles drawn

10 circles drawn; 7 circles drawn

10 circles drawn; 6 circles drawn

10 circles drawn; 3 circles drawn

2 sets of ten drawn and circled

10 and 1 drawn; 1 set of 10 circled

Answers will vary.

Exit Ticket

10 circles drawn; 5 drawn

10 circles drawn; 9 drawn

18 circles drawn; 10 circled

14 circles drawn; 10 circled

Homework

16 objects drawn; 10 circled

20 objects drawn; 2 sets of 10 circled

19 objects drawn; 10 circled

14 objects drawn; 10 circled

12 objects drawn; 10 circled



Lesson 10

Problem Set

Five red beads under 1 hand; 5 white beads under the other hand; numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 are written

Five red beads under 1 hand; 5 white beads under the other hand; numbers 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 are written

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 written

20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 written

Exit Ticket

A Rekenrek with 20 beads drawn

20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10

Homework

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 16 are written below the beads

12 beads crossed out

Lesson 11

Problem Set

6. 1 more is 7.
10. 1 more is 11.
8. 1 more is 9.
13. 1 more is 14
17. 1 more is 18
- 9
16
6
20
19
- Dana has 13 paper clips in her chain now.

Exit Ticket

14. 1 more is 15.
9. 1 more is 10.
- Andre has 9 blocks in his stack now.

Homework

- 12
10
14
11
- Luna has 8 cars in her train now.



Lesson 12

Problem Set

14. 1 less is 13.
10. 1 less is 9.
8. 1 less is 7.
13. 1 less is 12.
- 18, 17, 16, **15**
14, 13, 12, **11**
- 7
14
4
18
17
- Lucia has 9 paper clips in her chain.

Exit Ticket

14. 1 less is 13.
- 16, 15, 14, 13, 12, **11**
- José has 7 blocks in his stack.

Homework

- 10
8
12
9
- 20, 19, 18, **17**
- 10, 9, 8, **7**



Lesson 13

Problem Set

12, 14, 16, 18, 20

11, 15, 16, 19, 20

16

16

15 circles drawn in rows

12 squares drawn in rows

Exit Ticket

Draw 16 dots in rows. (Rows do not need to have equal amounts of dots in them.)

14

12

12

Homework

Dots drawn to show 10 and 5

Dots drawn to show 10 and 7

Dots drawn to show 10 and 2

Dots drawn to show 10 and 9



Lesson 14

Problem Set

14

12

15

18

3 more circles drawn

4 more triangles drawn

Answers will vary.

Exit Ticket

12

4 more dots drawn

Homework

12

10

9 more dots drawn

10 dots and 8 dots drawn; 18

Answers will vary.

Fluency Template

15 12

14 15



Lesson 15

Problem Set

1. 11 8 11
2. 17 12 12
3. 13 below flowers; 11 below happy faces; group of flowers circled; the number 13 circled
4. 15 below stars; 12 below hearts; group of hearts circled; the number 12 circled

Exit Ticket

- 12 below the left group of squares; 13 below the right group of squares; right group of squares circled; the number 13 circled
- 8 below the left group of triangles; 10 below the right group of triangles; left group of triangles circled; the number 8 circled

Homework

1. 15 12 15
2. 10 10 14
3. 14 below the moons; 12 below the suns; group of moons circled; the number 14 circled
4. 10 below the circles; 11 below the squares; the group of circles circled; the number 10 circled



Lesson 16

Problem Set

1. There are 15 squares.
(Answers will vary.) 16 or more circles
2. There are 13 happy faces.
(Answers will vary.) 12 or fewer lines
3. (Student should draw 4 squares.)

Exit Ticket

1. There are 12 stars.
2. (Answers will vary.) 13 or more triangles
3. (Answers will vary.) 11 or less circles
4. (Student should draw 12 squares.)

Homework

1. There are 15 moons.
2. (Answers will vary.) 14 or fewer lines
3. (Answers will vary.) 16 or more dots
4. (Student should draw 15 circles.)

Fluency Template

15 13
11 19



Lesson 17

Problem Set

30, 40, 60, 70, 80, 90, 100

80, 70, 50, 40, 30, 10

30, 40, 50, 60, 70

80, 70, 60, 50, 40

Exit Ticket

50, 60, 70, 80, 90

40, 50, 60, 70, 80

90, 80, 70, 60, 50

60, 50, 40, 30, 20

Homework

90, 80, 70, 60, 50, 30, 20

20, 30, 40, 50, 60

70, 60, 50, 40, 30

Fluency Template

3 hearts drawn

3 moons drawn

2 suns drawn

6 lightning bolts drawn

5 rhombuses drawn

4 circles drawn

4 triangles drawn

5 plus signs drawn



Lesson 18

Problem Set

21, 23, 25, 27, 28, 29

41, 42, 43, 45, 47

93, 94, 95, 96, 97

65, 66, 67; 65, 64, 63

Exit Ticket

50, 51, 54, 55, 56, 57

32, 33, 34, 33, 31

Homework

72, 73, 74, 76, 77, 78

10, 11, 13, 15, 17, 18, and 19

85, 86, 87, 88, 89; 88, 87, 86, 85, 84

31, 32, 33, 34, 35; 34, 33, 32, 31, 30

97, 98, 99, 98, 96



Lesson 19

Problem Set

15, 21, 28, 40

18, 19, 20, 22

27, 29, 30, 31, 32

33, 34, 35, 37, 38, 39, 40

9, 20, 30

Exit Ticket

29 crossed out; 26 written

43 crossed out; 34 written

Second 29 crossed out; 30 written

44 crossed out; 40 written

Homework

3 more dots drawn to make 23

20 more dots drawn to make 27

10 more dots drawn to make 34

8 more stars drawn to make 38

10 more raindrops drawn to make 40



Lesson 20

Problem Set

Last dot in each row colored green

First dot in each row outlined with blue square

Fifth dot in each row outlined with red triangle

Exit Ticket

Last dot in each row colored purple

Homework

Circle 28 colored green; circle 34 colored red

Circle 45 colored yellow; circle 52 colored blue

Circle 83 colored purple; circle 77 colored red

Last number in each row colored black



Lesson 21

Problem Set

10, 5; 10, 5

17; 10, 7

18; 18

16, 6; 16

14, 10, 4; 14

12, 10, 2; 10, 2

10, 1; 11, 10, 1

Exit Ticket

10 and 2 circled

1 and 10 circled

4 and 10 circled

10 and 8 circled

10 and 0 circled

10 and 10 circled

Homework

5 stars drawn; $15 = 10 + 5$; $10 + 5 = 15$

10 stars drawn; $17 = 10 + 7$; $10 + 7 = 17$

9 stars drawn; $19 = 10 + 9$; $10 + 9 = 19$

10 stars and 4 stars drawn; $14 = 10 + 4$; $10 + 4 = 14$

10 stars drawn; $20 = 10 + 10$; $10 + 10 = 20$



Lesson 22

Problem Set

10, 2; 2; 2

13, 3; 3; 3

15; 10; 10

10, 7; 10; 10

18, 8; 10; 8

10, 6; 10; 10

19, 10, 9; 10, 9

Exit Ticket

10, 7; 10; 7

10; 10, 13; 3

Homework

5; 5; 5 cubes drawn

10; 10; 10 cubes drawn

16; 10; 10 cubes drawn

10; 10; 10 cubes drawn



Lesson 23

Problem Set

10 erasers; 10 pencils circled; pencils checked

10 sandwiches; 10 cartons of milk circled; sandwiches checked

10 baseballs; 17; 10 gloves circled; 16

10 apples circled, 15; 10 oranges circled, 12; oranges checked

10 spoons circled, 19; 10 forks circled; 18; *more* circled

Exit Ticket

12, less, 20

13, less, 15

19, more, 16

Homework

6; 7; second group checked

10; 1; first group checked

12; 20; second group checked



Lesson 24

Problem Set

Drawing of 5 apples in a bag and 10 apples in a bowl

15, 10, 5; $5 + 10 = 15$

Drawing of 13 toy trucks

13, 10, 3; $13 = 10 + 3$

Drawing of 16 bags of popcorn

16, 10, 6; $16 = 10 + 6$

Exit Ticket

12 balls drawn

12, 10, 2; $10 + 2 = 12$

Homework

17 donuts drawn; $17 = 10 + 7$; 17, 10, 7

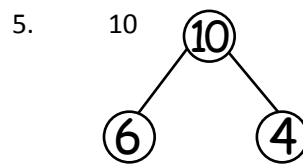
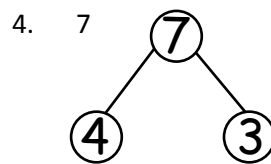
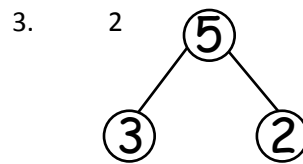
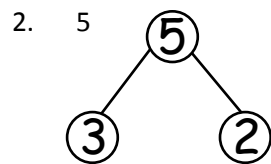
17 baseball cards drawn; $10 + 7 = 17$; 17, 10, 7

Lessons 25

Problem Set

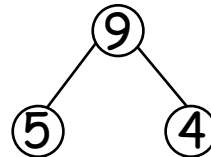
1a. income

1b. gift



Exit Ticket

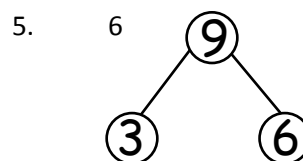
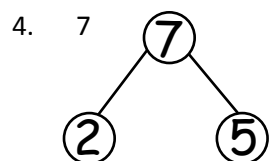
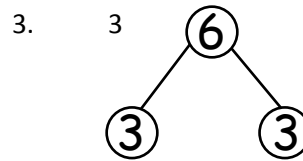
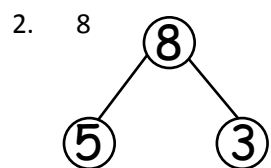
income: 4 dollars; gift: 5 dollars; income 9 dollars in all



Homework

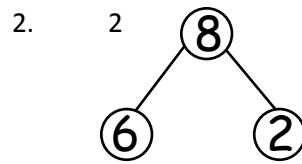
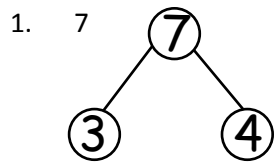
1a. gift

1b. income



Lessons 26

Problem Set

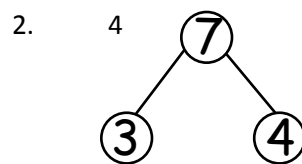
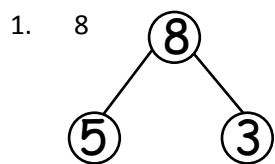


3. Answers will vary.

Exit Ticket

Answers will vary.

Homework



3. Answers will vary.



Lessons 27

Problem Set

Answers may vary. Possible student response might include:

Needs: paper and pencil, sweater, running water, car, home, food, clothing, electricity

Wants: sailboat, picture, doll, building blocks, candy

Exit Ticket

Answers may vary. Possible student response might include:

Needs: water, home

Wants: necklace, stuffed animal

Homework

Answers may vary. Possible student response might include:

Needs: water, pencil, food, clothing, home, bread, phone, shoes

Wants: puzzle, video game, gum, ball



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