

# ASTRONOMY: SPACE EXPLORATION



**GRADE 1 UNIT 4 | ACTIVITY BOOK**

EDITION 1

Grade 1

Unit 4

# **Astronomy:** Space Exploration

## **Activity Book**

Acknowledgement:

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.

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NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

1.1

Activity Page

*Directions: Make a journal for each student by folding and stapling this activity page (see back) with at least two sheets of paper.*

# My Astronomy Journal

By \_\_\_\_\_

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

1.2

Activity Page



Directions: Draw and label the things you see in the sky. Then fill in the blanks to complete the sentences.

In my drawing, \_\_\_\_\_

\_\_\_\_\_

are objects found in outer space.

\_\_\_\_\_

\_\_\_\_\_ are objects found in the atmosphere.



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

1.3

Take-Home

## Dear Family Member,

Over the next few weeks, your student will be learning about astronomy. Your student will learn about the sun, the moon, the stars, and the eight planets in our solar system. Your student will also learn about space exploration, including the first astronauts to land on the moon.

In the next few days, we will focus our study of astronomy on the sun, the moon, and the stars. The most powerful way you can help support your student's learning about astronomy is to take them outside to observe the sky. Below are some suggestions for ways you can make their study of astronomy even more meaningful and fun, and some words your student is learning that relate to each activity.

### 1. Sunrise or Sunset

Your student is learning that the earth orbits or revolves around the sun. Your student is also learning that even though it looks like the sun moves across the sky each day, it is actually the earth spinning on its axis that causes day and night. Go outside with your student at dawn to observe the sunrise, or at dusk to observe the sunset.

Words to use: *dusk, dawn, atmosphere, revolve, horizon*

### 2. Stargazing

In a few days your student will learn about the stars and the constellations. Take your student out in the evening to observe the stars. The Big and Little Dipper are part of the Big Bear constellation. Your student will learn to recognize the dippers and Polaris (the North Star). Together with your student, try to identify these groups of stars in the night sky. You may wish to obtain a book from the library on constellations to guide your observations.

Words to use: *constellation, star, telescope, outer space, meteor*

### 3. Phases of the Moon

Your student will learn about the moon and how it orbits the earth, reflecting the sun's light. Your student will also learn to recognize four of its phases: the new moon, the crescent moon, the half moon, and the full moon. Look for the moon every few days and talk with your student about how much of it is visible in the sky.

Words to use: *crescent, full, reflecting, orbit, craters, man in the moon*



#### **4. Read Aloud Each Day**

It is very important that you read to your student each day. The local library has many books on astronomy and a list of books and other resources relevant to this topic.

Be sure to let your student know how much you enjoy hearing about what they have been learning at school.

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

3.1

Activity Page

## ***Stars***



*What can you see in the sky at dusk or dark?*

I can see \_\_\_\_\_

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*Directions: Draw a picture of what you can see at dusk or dark and answer the questions.*

*What did you learn from the Read-Aloud “Stars”? (What did people learn about stars in modern times?)*

I learned that \_\_\_\_\_

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*What did the poem say about stars?*

In the poem, \_\_\_\_\_

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NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

4.1

Activity Page

## ***Stargazing and Constellations***

Directions: Write the name of this group of stars on the blank. Then write one sentence about what you learned about stargazing and constellations today.



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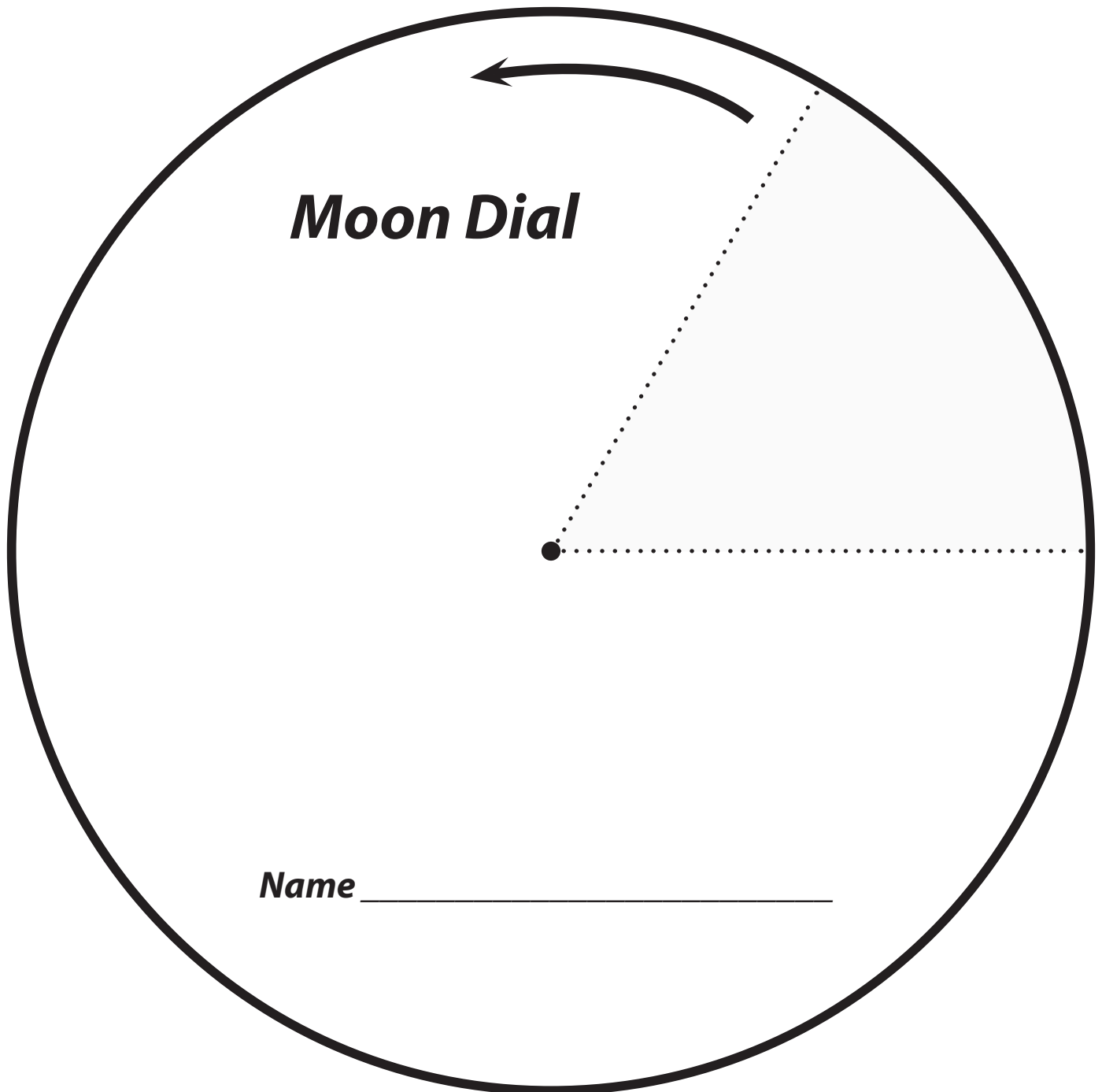


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5.1

Activity Page



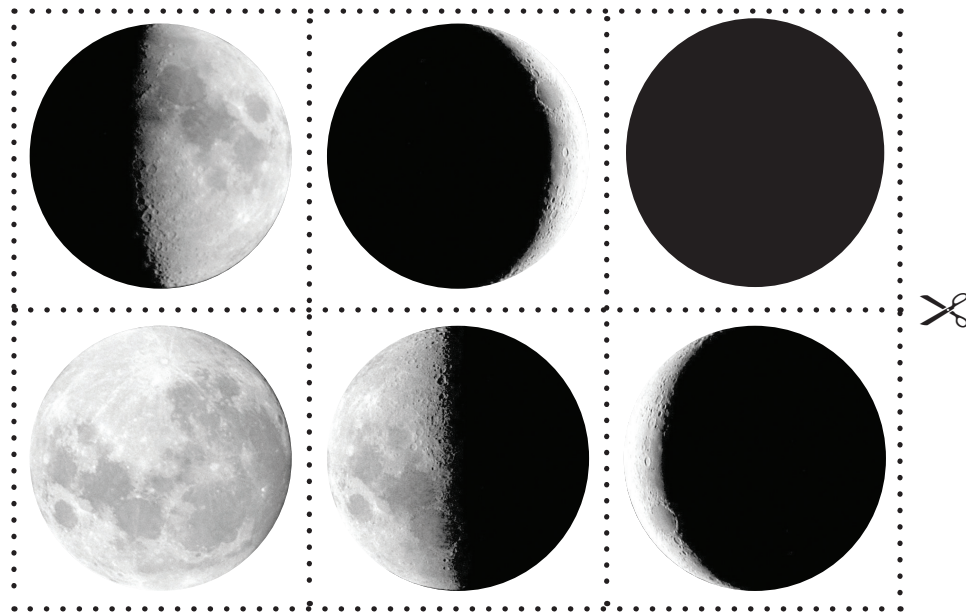


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5.1  
CONTINUED

Activity Page





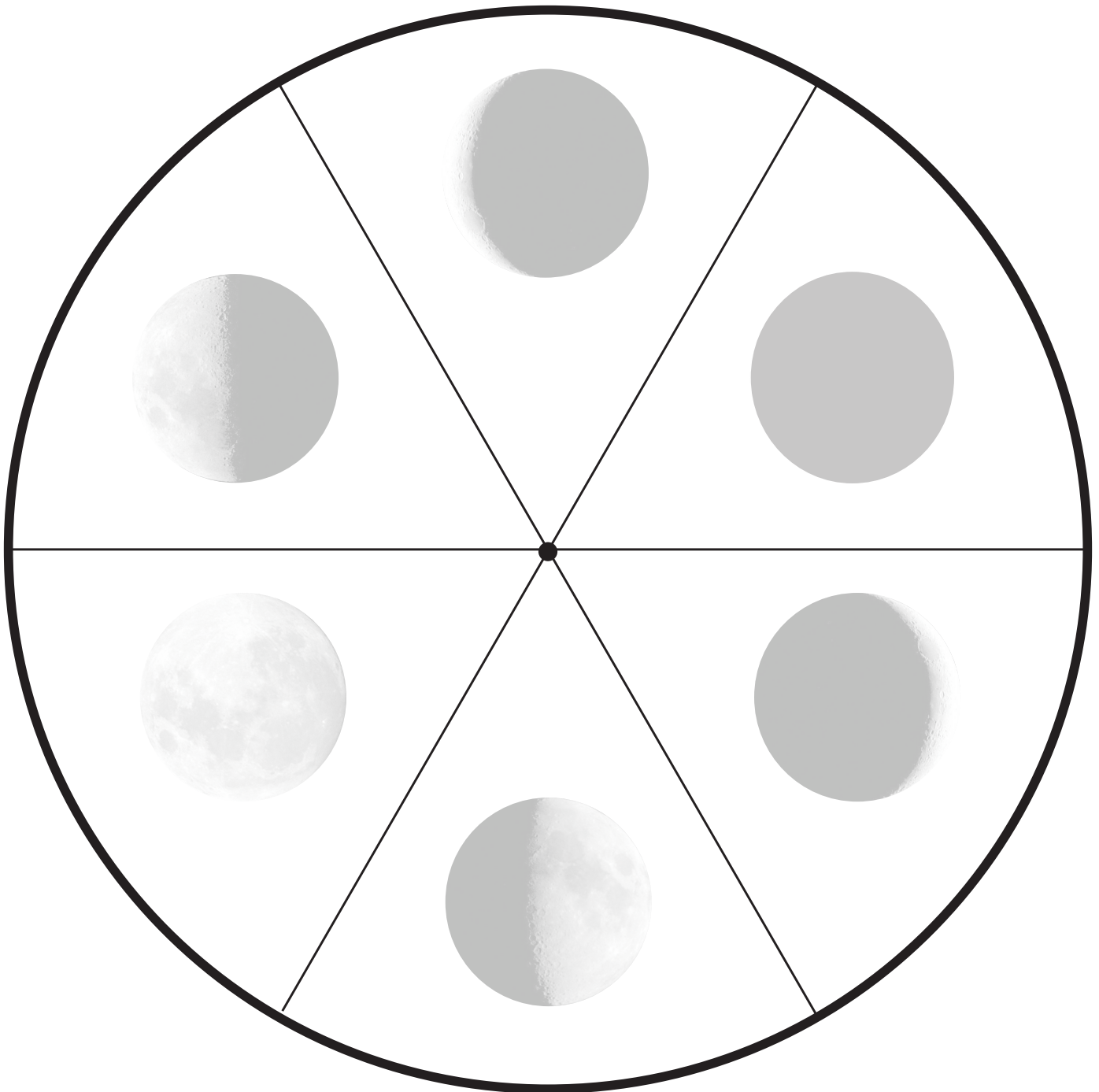


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5.1  
CONTINUED

Activity Page





NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

5.2

Activity Page

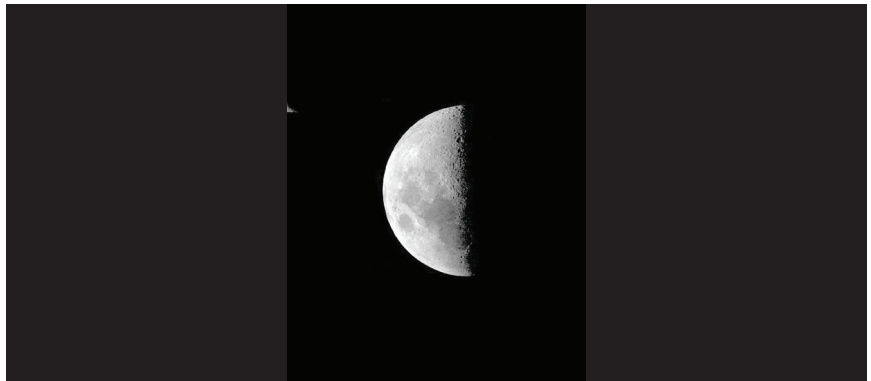
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\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



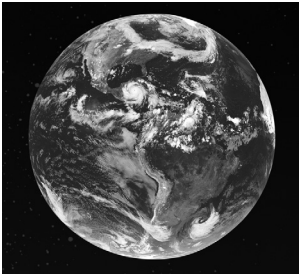
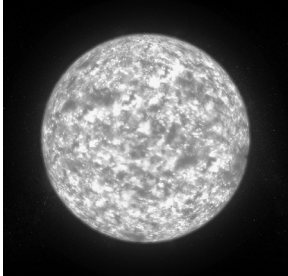

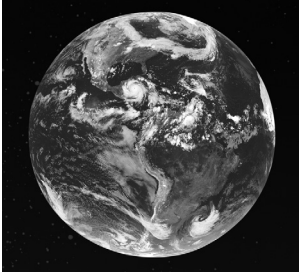
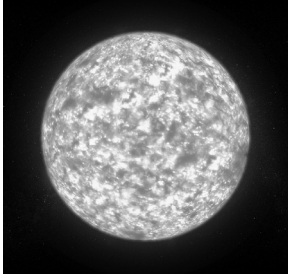

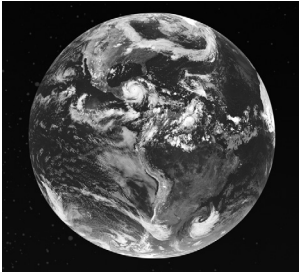
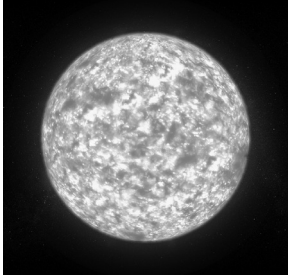

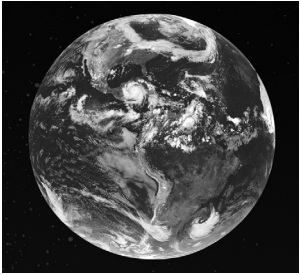


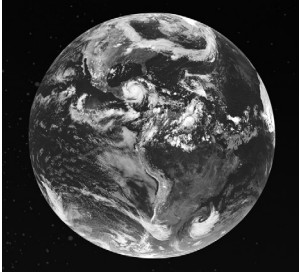
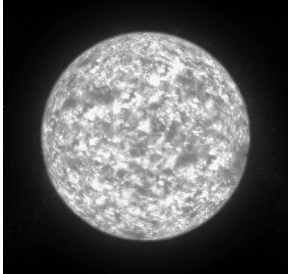



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

PP.1

Assessment

	Earth	Sun	Moon
1.			
2.			
3.			
4.			
5.			

Directions: Listen to your teacher's directions.



















NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

PP.2

Assessment

Directions: Listen to your teacher's directions.

			
			
			
			
1.	2.	3.	4.



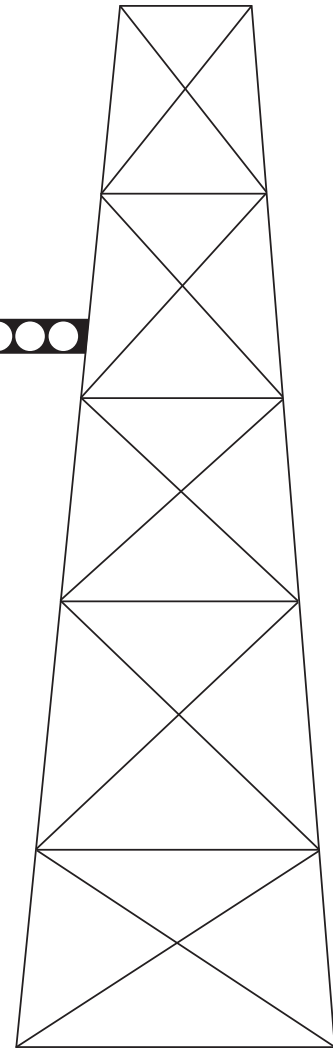


NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

6.1

Activity Page



Directions: Draw a picture of a rocket ship taking off, and complete the opinion statement.

I think the hardest part of being an astronaut is \_\_\_\_\_

\_\_\_\_\_ because (1) \_\_\_\_\_

\_\_\_\_\_.

and (2) \_\_\_\_\_

\_\_\_\_\_.



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

6.2

Take-Home

**Dear Family Member,**

Over the next few days, your student will be continuing their study of astronomy. Your student has now learned about the sun and the stars, and has begun to learn about the moon. In the next few days, our class will focus our study on space exploration and the planets in the solar system. The most powerful way you can help support your student's learning about astronomy is to continue taking them outside to observe the sky. Below are some additional suggestions for activities, and some words your student is or will be learning that relate to each activity.

**1. Name the Planets**

Your student will be learning about the eight planets in our solar system: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Your student will also learn that Pluto was once considered a planet, but in 2006 was categorized as a dwarf planet. When you were in school, you may have learned a mnemonic to remember the names of the (then) nine planets, such as "My Very Educated Mother Just Served Us Nine Pizzas." Write a new mnemonic with your student to help them remember the list of eight names above.

**2. Make a Model**

Work with your student to use play dough or modeling clay to create models of the sun and the planets. Lay the models on a black piece of paper, and draw chalk lines to represent orbits. Alternatively, work with your student to paint or draw a diagram of the solar system on a piece of paper.

**3. Planet Earth**

Your student has learned that our home, Earth, is a planet that it is in constant motion. It is difficult to believe that we are living on a moving sphere when the land beneath our feet seems still and flat. Explore a globe with your student and help them understand that it represents the planet Earth. Locate the United States and other countries your student knows about. Observe how much of the planet is covered by the continents and how much is covered by the oceans.

**4. Astronauts for a Day**

Your student will learn about spacecraft and astronauts in the coming days. If the thought of space travel captures your student's imagination, pretend to be astronauts

together. Dress up in spacesuits and helmets. Using furniture or boxes, assemble a spacecraft. Countdown to launch, hurtle through space propelled by a rocket, and pretend to land on the moon or another planet.

## **5. Read Aloud Each Day**

It is very important that you read to your student each day. Many books can be found at the local library related to astronomy.

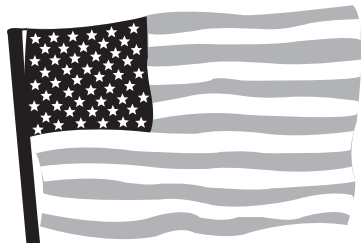
Be sure to let your student know how much you enjoy hearing about what they have been learning at school.

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

7.1

Activity Page



Directions: Draw a picture of you on the moon and complete the opinion statements.

If I went to the moon, I would \_\_\_\_\_.

The best part about going to the moon would be \_\_\_\_\_

\_\_\_\_\_ because \_\_\_\_\_

\_\_\_\_\_.

The worst part about going to the moon would be \_\_\_\_\_

\_\_\_\_\_ because \_\_\_\_\_

\_\_\_\_\_.



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

8.1

Activity Page



Directions: Draw a picture of the inner planets and finish the sentences below.

The four inner planets are \_\_\_\_\_ ,  
\_\_\_\_\_, \_\_\_\_\_ , \_\_\_\_\_ ,  
and \_\_\_\_\_ .

One thing I learned about \_\_\_\_\_ is  
\_\_\_\_\_ .

One thing I learned about \_\_\_\_\_ is  
\_\_\_\_\_ .





NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

9.1

Activity Page



Directions: Draw a picture of the outer planets and finish the sentences below.

The four outer planets are \_\_\_\_\_ ,  
\_\_\_\_\_, \_\_\_\_\_ , \_\_\_\_\_ ,  
and \_\_\_\_\_ .

One thing I learned about \_\_\_\_\_ is  
\_\_\_\_\_ .

One thing I learned about \_\_\_\_\_ is  
\_\_\_\_\_ .



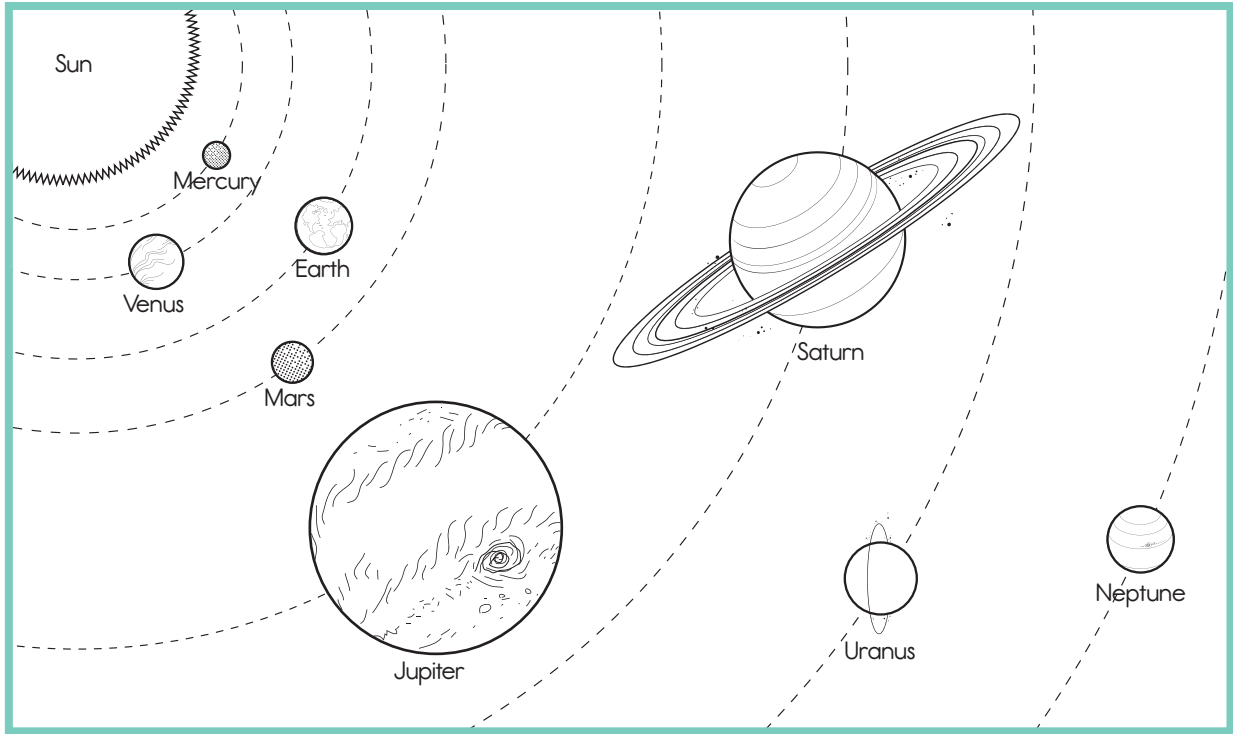
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UR.1

Assessment

Directions: Read and answer each question using the diagram. You may wish to color the diagram to reflect what you know about the colors of certain planets in the solar system.



1. How many planets orbit the sun?  
\_\_\_\_\_
2. Which planet is closest to the sun?  
\_\_\_\_\_
3. Is Mars larger or smaller than Earth?  
\_\_\_\_\_
4. Which planet is famous for its rings?  
\_\_\_\_\_



NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

UA.1

Assessment

1.



2.



3.



4.



5.



6.



7.



8.



Directions: Listen to your teacher's instructions.

9.



10.



11.



12.



13.



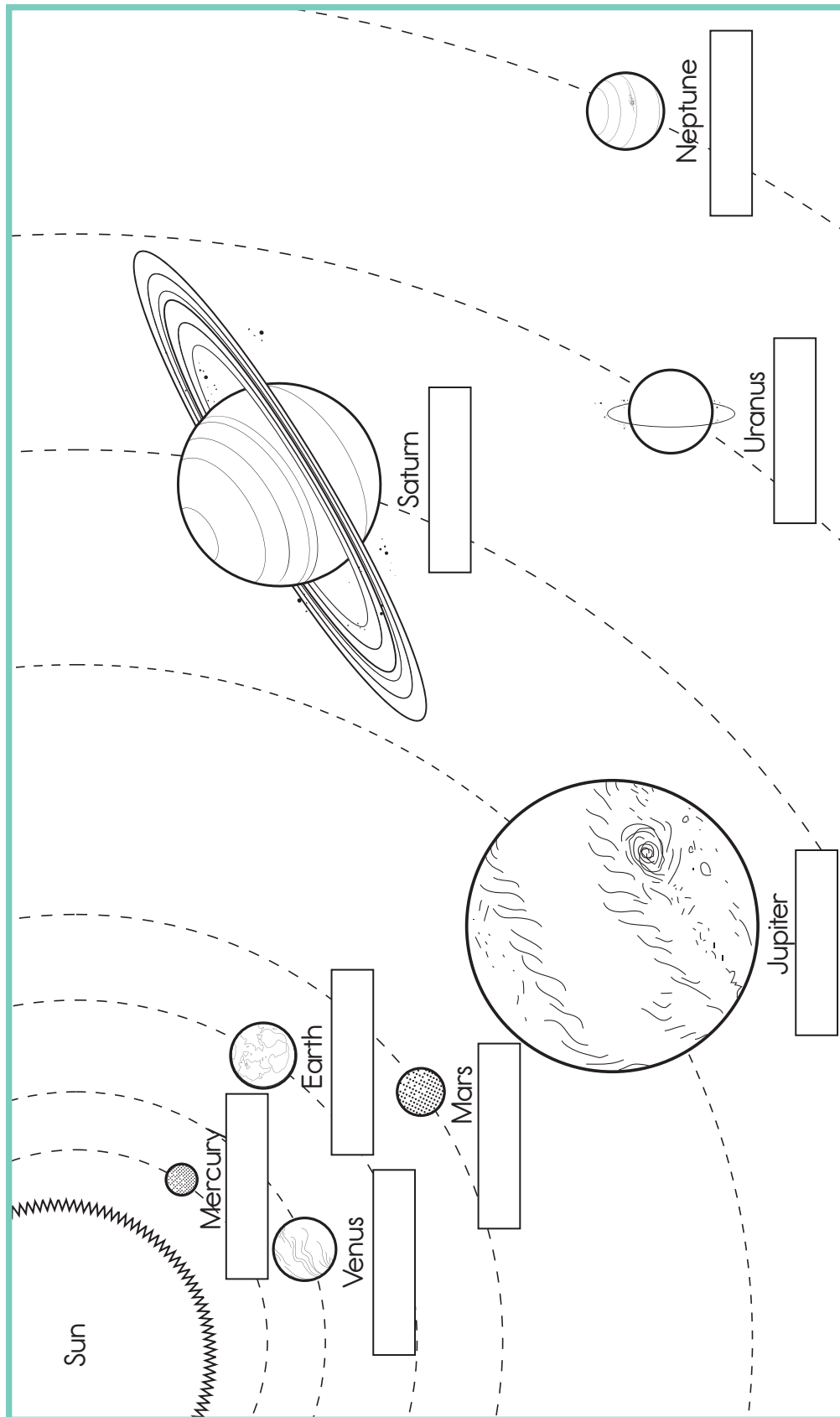
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UA.2

Assessment

Directions: Listen to your teacher's instructions.







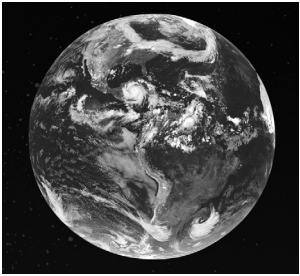
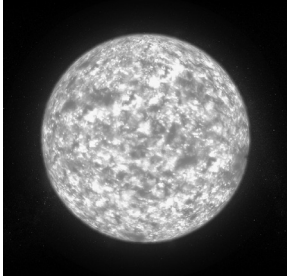

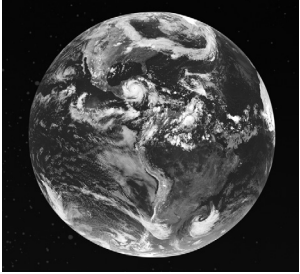
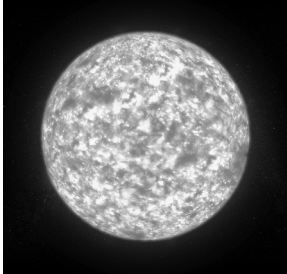

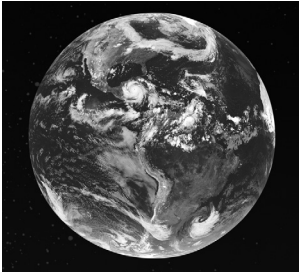
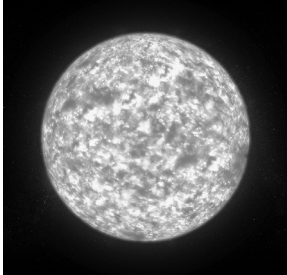

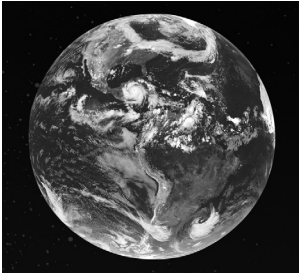


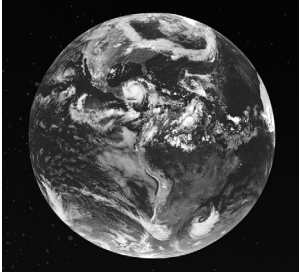
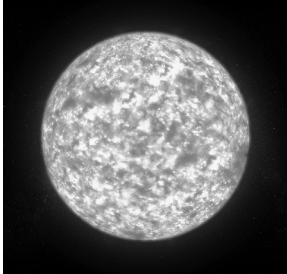

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

UA.3

Assessment

Directions: The pictures show the earth, the sun, and the moon. If what I read to you describes something about the earth, circle the first picture in the row. If what I read to you describes something about the sun, circle the second picture in the row. If what I read to you describes something about the moon, circle the last picture in the row.

	Earth	Sun	Moon
1.			
2.			
3.			
4.			
5.			



ISBN 979-8-89072-918-7

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