Secondary Mathematics

EDITION 1

Grade 8

Materials List

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

These learning resources have been built for Texas students, aligned to the Texas Essential Knowledge and Skills, and are made available pursuant to Chapter 31, Subchapter B-1 of the Texas Education Code.

If you have further product questions or to report an error, please email openeducationresources@tea.texas.gov.

GRADE 8 MATERIALS

Key

● Materials required to implement the lesson as written

▲ Optional materials, such as those associated with differentiation strategies

The Course Materials list provides an overall view of the materials required for each lesson in the course. Consult the specific Lesson Overview for additional details.

	Algebra Tiles	Analog Clock	Birdseed	Blank Paper	Calculators	Can of Soup	Cardboard	Centimeter Cubes	Clear Storage Box	Colored Pencils	Crayons	Cups	Formula Reference Sheet	Glue	Graph/Grid Paper	Highlighters	Index Cards	Lesson-Embedded Resources	Mailing Labels	Markers	Measuring Tapes	Mirror	Modeling Clay	Models of 3-D Figures	Number Cubes
MODULE 1 Transforming Geometric Objects																									
TOPIC 1 Rigid Motion Transformations																									
Introduction Lesson																									
1 Introduction to Congruent Figures										▲								●							
2 Introduction to Rigid Motions																		●							
3 Translations of Figures on the Coordinate Plane										▲															
4 Reflections of Figures on the Coordinate Plane										▲												▲			
5 Rotations of Figures on the Coordinate Plane		▲																							
6 Congruence and Rigid Motions																									
TOPIC 2 Similarity																									
1 Dilations of Figures										▲															
2 Dilating Figures on the Coordinate Plane																									
3 Mapping Similar Figures Using Dilations															▲										
TOPIC 3 Line and Angle Relationships																									
1 Exploring Angle Theorems																	▲								
2 Exploring the Angles Formed by Lines Intersected by a Transversal										▲															
3 Exploring the Angle-Angle Similarity Theorem										▲															

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	Paper Bags	Paper Clips	Patty Paper	Poster Paper	Problem-Solving Model Graphic Organizer	Protractors	Raw Pasta	Rods	Rulers	Scissors	Spherical Objects	Stencils	Sticker Dots	Stopwatches	Straightedges	String	Tape	Technology	Transparencies	Web-Based Resources
MODULE 1 Transforming Geometric Objects																				
TOPIC 1 Rigid Motion Transformations																				
Introduction Lesson					●															
1 Introduction to Congruent Figures			●							●								▲		
2 Introduction to Rigid Motions			●			●			●											
3 Translations of Figures on the Coordinate Plane			●																	
4 Reflections of Figures on the Coordinate Plane			●		●															
5 Rotations of Figures on the Coordinate Plane			●		●															
6 Congruence and Rigid Motions			▲		●															
TOPIC 2 Similarity																				
1 Dilations of Figures						●			●						▲					
2 Dilating Figures on the Coordinate Plane					●	●			●											
3 Mapping Similar Figures Using Dilations						●			●											
TOPIC 3 Line and Angle Relationships																				
1 Exploring Angle Theorems			●		●				●											
2 Exploring the Angles Formed by Lines Intersected by a Transversal			●			●									●					
3 Exploring the Angle-Angle Similarity Theorem			▲			●									●					

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MODULE 2 Developing Function Foundations																									
TOPIC 1 From Proportions to Linear Relationships																									
1 Representations of Proportional Relationships																									
2 Using Similar Triangles to Describe the Steepness of a Line										▲															
3 Exploring Slopes Using Similar Triangles																									
4 Transformations of Lines																									
TOPIC 2 Linear Relationships																									
1 Using Tables, Graphs, and Equations					●																				
2 Linear Relationships in Tables					●																				
3 Linear Relationships in Context																									
4 Slope-Intercept Form of a Line										●								●							
5 Defining Functional Relationships																	▲	●							

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2 Using Similar Triangles to Describe the Steepness of a Line			●							●					●					
3 Exploring Slopes Using Similar Triangles			●		●	▲														
4 Transformations of Lines			●		●		●								●			▲		
TOPIC 2 Linear Relationships																				
1 Using Tables, Graphs, and Equations					●										●			▲		
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4 Slope-Intercept Form of a Line				▲	●										●					
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MODULE 3 Data Data Everywhere																									
TOPIC 1 Patterns in Bivariate Data																									
1 Analyzing Patterns in Scatterplots												●													
2 Drawing Trend Lines										▲															
3 Analyzing Trend Lines																									
4 Comparing Slopes and Intercepts of Data from Experiments										▲	▲						▲			▲					
TOPIC 2 Variability and Sampling																									
1 Mean Absolute Deviation					●																				
2 Collecting Random Samples				●	●											▲									▲
3 Sample Populations					●																				

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4 Comparing Slopes and Intercepts of Data from Experiments					●									●				▲		●
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MODULE 4 Modeling Linear Equations																									
TOPIC 1 Solving Linear Equations																									
1 Equations with Variables on Both Sides	●																								
2 Analyzing and Solving Linear Equations																									
3 Solving Linear Inequalities	▲																								
TOPIC 2 Systems of Linear Equations																									
1 Point of Intersection of Linear Graphs				▲	▲																				
2 Systems of Linear Equations														●	▲			●							
3 Multiple Representations of Systems of Linear Equations										▲															

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MODULE 5 Applying Powers																									
TOPIC 1 Real Numbers																									
1 Sorting Numbers																		●	▲						
2 Rational and Irrational Numbers																									
3 The Real Numbers																									
4 Scientific Notation				▲	●																				
TOPIC 2 The Pythagorean Theorem																									
1 The Pythagorean Theorem										●			▲	●				●							
2 The Converse of the Pythagorean Theorem													▲												
3 Distances in a Coordinate System				▲			▲			▲			▲		▲										
4 Side Lengths in Two and Three Dimensions							▲		▲	▲			▲												
TOPIC 3 Financial Literacy: Your Financial Future																									
1 Simple and Compound Interest					●								▲												
2 Terms of a Loan					●								▲												
3 Online Calculators					●																				
4 Financing Your Education					●																				
TOPIC 4 Volume of Curved Figures																									
1 Volume and Surface Area of a Cylinder				▲	●	▲							▲											▲	
2 Volume of a Cone			●		●									●				●							
3 Volume of a Sphere				●	●																▲		●		
4 Volume and Surface Area Problems with Prisms, Cylinders, Cones, and Spheres				●	●			●																	

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