

learning focus:

- ✓ apply properties of triangles including side lengths and angle relationships
- ✓ graph ordered pairs on a coordinate plane
- ✓ write equations and determine solutions for problems involving area and volume

GEOMETRY UNIT

11 DAY TEKS-ALIGNED UNIT



GEOMETRY UNIT
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GEOMETRY ACTIVITY PACING GUIDE

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Angle Relationships in Triangles	Side Lengths of Triangles	Area of Rectangles and Parallelograms	Area of Triangles and Trapezoids	

SQUARES AND TRAPEZOIDS

Name _____
Date _____ Pd _____

below. Complete the t-chart to compare their

SIMILARITIES	DIFFERENCES

...bh, how could you describe the

...e triangle? Was your hypothesis

...ne area. Then, use the formula

TRIANGLE 3

Area

GEOMETRY



an 11 day TEKS-aligned unit

TEKS: 6.8A, 6.8B, 6.8C, 6.8D, 6.10A, 6.11A

**ready-to-go, scaffolded
student materials**

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GEOMETRY



an 11 day TEKS-aligned unit

TEKS: 6.8A, 6.8B, 6.8C, 6.8D, 6.10A, 6.11A

student friendly + real-world application

interactive practice

Unit: Geometry
Student Handout 2

Name _____
Date _____ Pd _____

SIDE LENGTHS OF TRIANGLES

• Triangles are named by their sides and they can be described by the terms _____ and _____.

• The side length of a triangle corresponds with the angle measure _____ the side.

Ex: Triangle ABC is _____

- Side AB corresponds to _____
- Side BC corresponds to _____
- Side CA corresponds to _____

• The smallest angle corresponds to _____ the largest angle corresponds to _____

• A side is _____

1. Use each of the triangles below to answer the questions.

- Which side corresponds to angle M?
- Which side corresponds to angle P?
- Which side corresponds to angle R?
- Which side length will be the shortest?
- Which side length will be the longest?

TRIANGLE INEQUALITY THEOREM

• In order for a triangle to exist, the side lengths must be _____

Ex: Triangle ABC has side lengths of _____

- the greatest side length is _____
- the shortest side length is _____
- _____

Unit: Geometry
Homework 2

Name _____
Date _____ Pd _____

SIDE LENGTHS OF A TRIANGLE

Students were asked to create true statements about side lengths of triangles. Circle the names of the students who correctly completed the task. Then, unscramble the underlined letters of the circled names to answer the riddle at the bottom.

BETHANY

side length KL corresponds with angle JKL

ISAIAH

Three side lengths of 23, 32, and 45 units will form a triangle.

DADLO

\angle GIH corresponds with the shortest side

QUINN

side length TV corresponds with the largest angle

ADRII

If triangle QRS has side lengths of QR = 12.3 and RS = 8.8, then the greatest length side QS could be is 21.1.

TROY

side length WX corresponds with angle WYZ

TRENT

Three side lengths of 6, 8, and 15 units will form a triangle.

SAMANTHA

side length BC corresponds with angle CAB

MEGAN

Three side lengths of 5.2, 6.3, and 10.5 units will form a triangle.

4. Marcy says that if a new Line G was segments above. List the possible line segments with Line G.

Summarize today's lesson:

scaffolded concepts

WHAT KIND OF TRIANGLE IS NEVER WRONG?

GEOMETRY



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TEKS: 6.8A, 6.8B, 6.8C, 6.8D, 6.10A, 6.11A

streamline your planning process with unit overviews

- ✓ key vocabulary
- ✓ vertical alignment



sample
pacing
calendar

GEOMETRY OVERVIEW

READINESS STANDARDS	SUPPORTING STANDARDS
<p>6.8D Determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers.</p> <p>6.10A Model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts.</p> <p>6.11A Graph points in all four quadrants using ordered pairs of rational numbers.</p>	<p>6.8A Extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle, and determining when three lengths form a triangle.</p> <p>6.8B Model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes.</p> <p>6.8C Write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms, where dimensions are positive rational numbers.</p>

PIC IDEAS

- A figure can be decomposed
- The volume of a rectangular
- The area of a 2D figure desc
- The coordinate plane is an in
- The coordinate plane is used

ESSENTIAL QUESTION

- Why do different shapes hav
- How are the interior angles c

GEOMETRY PACING GUIDE

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Angle Relationships in Triangles	Side Lengths of Triangles	Area of Rectangles and Parallelograms	Area of Triangles and Trapezoids	Measurement and Area
Student Handout 1 Homework 1	Student Handout 2 Homework 2	Student Handout 3	Student Handout 4	Student Handout 5
DAY 6	DAY 7			
Angles and Area Quiz	Volume of Rectangular Prisms			
Quiz 1	Student Handout 6 Homework 6			
DAY 11	NOTES			
Geometry Unit Test				
Unit Test				

GEOMETRY OVERVIEW

TOPIC	TEACHING TIPS
Angle Relationships and Triangles	<ul style="list-style-type: none"> This is one of my most favorite topics! Have students work in groups of three. Give them a long piece of string that has been tied to form a circle. Each student will hold the string and form a vertex. As a review, you could call out the various triangle classifications and have students move to create that type of triangle. Oftentimes during the STAAR exam, students are asked to bubble these types of responses. Consider practicing bubbling the correct value or even showing the answers bubbled incorrectly.
Area of Quadrilaterals	<ul style="list-style-type: none"> I love teaching area as a covering of a 2D object. This could be as simple as using graph paper to color various shapes with various dimensions. Students could create a picture with various shapes or even spell out their name. Cheez-Its® are also a great way for students to physically cover an object. Consider giving students a specific number of Cheez-Its®, and then ask them the various dimensions that can be created with that area.
Area of Triangles	<ul style="list-style-type: none"> Search www.illuminations.nctm.org for the Area Tool to find an interactive tool that allows you to draw the height of the triangle (and trapezoid) to see various changes. This helps to see the height of the triangle, even on an obtuse triangle. For additional practice, consider incorporating the Desmos activity, 'Exploring Triangle Area with Geoboards'.
Measurement and Area	<ul style="list-style-type: none"> I would suggest printing a TEKS Mathematics Chart from the TEA website and laminating it for everyday use throughout the unit. Students are able to practice using the reference materials. Reference materials: https://tea.texas.gov/student-assessment/staar/math/ The main purpose of the lesson is for students to practice using the math chart to measure and then use the formula. If students are doing well, then you might consider supplementing this lesson with more hands-on objects instead of the images on the student handouts. Examples include: the window on your classroom door, any posters hanging on the wall, etc.

teaching ideas



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TEKS: 6.8A, 6.8B, 6.8C, 6.8D, 6.10A, 6.11A

unit study guide + assessments

✓ quizzes

✓ editable unit test

Unit: Geometry
Quiz 1

Name _____
Date _____ Pd _____

QUIZ: ANGLES AND AREA

Calculate the area of the shapes below.

1.

2.

3.

5. A standard size volleyball court has an area of 1,800 square feet. The length of the court is 60 feet. What is the width of the court?

Unit: Geometry
Review

Name _____
Date _____ Pd _____

GEOMETRY UNIT STUDY GUIDE

Solve each of the problems below. These represent the types of questions on your test. Be sure to ask questions if you need more help with a topic.

I CAN DETERMINE SOLUTIONS FOR PROBLEMS INVOLVING AREA. 6.8D

1. Find the area of the parallelogram.

3. A magazine picture of a purse is shown below. How much area does the purse (including the handle) take up in the magazine layout?

5. Determine the area of each figure.

SIXTH GRADE CURRICULUM

GEOMETRY

UNIT NINE: ANSWER KEYS

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answer keys included