

NOT SO WIMPY

UNIT 8:

GEOMETRY

4th GRADE

MATH CURRICULUM

20 DAYS OF GEOMETRY

MATH LESSON PLANS,

POWERPOINTS, ACTIVITIES,

AND ASSESSMENT





UNIT 8: GEOMETRY at a glance

Day 1 Classifying Lines	Day 2 Parallel and Perpendicular Lines	Day 3 Types of Angles	Day 4 Right Triangles	Day 5 Benchmark Angles
Day 6 Measuring Angles	Day 7 Measuring and Classifying Angles	Day 8 Sketching Angles	Day 9 Angles	Day 10 Review
Day 11 Additive Angles	Day 12 Additive Angles	Day 13 Lines of Symmetry	Day 14 Lines of Symmetry	Day 15 Classifying Shapes
Day 16 Classifying Shapes	Day 17 Word Problems	Day 18 Word Problems	Day 19 PBL	Day 20 Assessment

THIS UNIT COVERS THE FOLLOWING COMMON CORE MATH STANDARDS: 4.G.1, 4.G.2, 4.G.3, 4.MD.5, 4.MD.6, & 4.MD.7

INCLUDES A PACING GUIDE TO SEE
YOUR ENTIRE WEEK AT A GLANCE

8.7 MEASURING ANGLES

I CAN STATEMENT

I can measure and classify angles.

MATERIALS

8.7 PowerPoint
8.7 printouts
protractor
angle
classifications
anchor chart

VOCABULARY

angle
right angle
acute angle
obtuse angle
benchmark

MINI LESSON

Lesson completing the fact fluency by larger numbers.

Questions with students

angles.

Vocabulary terms: angle

classifications.

Using to combine our

and classify angles.

Review angles. Review

classifications. After

to classify

low

class

ur

8.4 RIGHT TRIANGLES

I CAN STATEMENT

I can identify right angles.

MATERIALS

8.4 PowerPoint
8.4 printouts
colored pencil
(intervention)

VOCABULARY

angle
right angle
acute angle
obtuse angle
right triangle

MINI LESSON

Spend the first few minutes of the lesson completing the fact fluency slides. These slides use basic facts to multiply by larger numbers.

Using the PPT, complete the warm-up question with students. This question reviews classifying lines.

Using the PPT, review the following vocabulary terms: angle, right angle, acute angle, and obtuse angle. Then, introduce the term right triangle.

Tell the students that today we are going to use our knowledge of right angles to help us identify triangles with right angles, otherwise known as right triangles.

Using the PPT, model how to determine if a triangle is a right triangle. Then, model how to use a straight edge to draw a right triangle.

INTERVENTION

Have students use a different color to draw their squares in the angles of the triangles. This will help them differentiate between the lines of the triangle and the lines of the square.

EXTENSION

Can you draw a triangle with parallel lines?

WRAP UP

Allow students time to complete the exit ticket. After everyone is finished, grade the exit ticket together and allow time for student feedback.

NOT SO WIMPY TEACHER

8.16 CLASSIFYING SHAPES

I CAN STATEMENT

I can classify shapes based on the presence of parallel and perpendicular lines.

MATERIALS

8.16 PowerPoint
8.16 printouts
parallel and perpendicular lines
anchor chart
(intervention)

VOCABULARY

parallel
perpendicular

MINI LESSON

Spend the first few minutes of the lesson completing the fact fluency slides. These slides have students estimate products by rounding a factor to the nearest friendly number.

Using the PPT, complete the warm-up questions with students. These questions are a review of parallel and perpendicular lines.

Using the PPT, review the following vocabulary terms: parallel and perpendicular.

Tell the students that we are going to continue classifying shapes based on the presence of parallel and perpendicular lines. Have the students discuss whether it is easier for them to identify parallel or perpendicular sides in shapes. Allow students an opportunity to explain their thinking.

Use the students' explanations to determine the parallel and perpendicular lines in the shapes.

INTERVENTION

Allow students to reference the parallel and perpendicular lines anchor chart while they are classifying their shapes.

EXTENSION

Have students determine the parallel and perpendicular lines in the classroom.

WRAP UP

Allow students time to complete the exit ticket. After everyone is finished, grade the exit ticket together and allow time for student feedback.

NOT SO WIMPY TEACHER

INCLUDES WHOLE GROUP
LESSON PLANS!

8.6 MEET THE TEACHER

ACTIVITY:

Give each student the 8.6 activity sheet and a protractor. Have them cut out each box and puzzle piece.

Explain to students that their job is to match puzzle pieces by matching the angle to the correct angle measure.

DIFFERENTIATION:

You can differentiate this activity by amount of assistance each group receives. Students could work alone, in pairs, or as a whole group.

For students that need an extra challenge, they sort the cards again with a protractor. Have them explain how to do this.

When the students are finished, check their work and correct any mistakes.

NOTES:

8.8 MEET THE TEACHER

MATERIALS FOR TEACHER: whiteboard, marker, eraser, protractor
MATERIALS FOR STUDENTS: whiteboards, markers, erasers, protractors

APPROACHING

Begin the lesson by reviewing how to use a protractor. Then, model how to sketch a 55° angle using the protractor. Use the protractor to make a straight line for the first line of the angle. Then, align the protractor to that line and draw the second line to find 55° and that angle. Repeat with 60° and 70° to find 55°. Show students how to connect the first line to 55°.

Work together with a partner to ensure the student is aligned correctly and sure they are measuring the angle.

Repeat with 60° and 70°.

ON TRACK

Ask the student to draw things to represent the bottom line of the angles.

Model how to draw the angle.

Challenge them to draw the angle.

Repeat with 60° and 70°.

MASTERED

Ask the student to draw things to represent the bottom line of the angles.

Challenge them to draw the angle.

Repeat with 60° and 70°.

NOTES:

8.15 MEET THE TEACHER

ACTIVITY:

Give each student the 8.15 activity sheet and have them cut out each box.

Explain to students that their job is to sort cards into the categories "neither," "perpendicular," or "both." Chose a category and sort with the students.

DIFFERENTIATION:

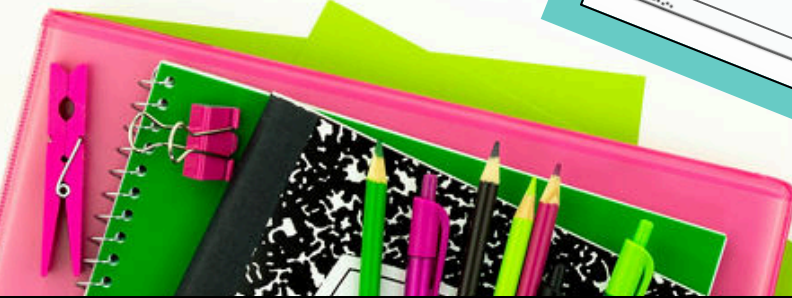
You can differentiate this activity by amount of assistance each group receives. Students could work alone, in pairs, or as a whole group.

For students that need an extra challenge, have them make their own cards with shapes to sort into each category.

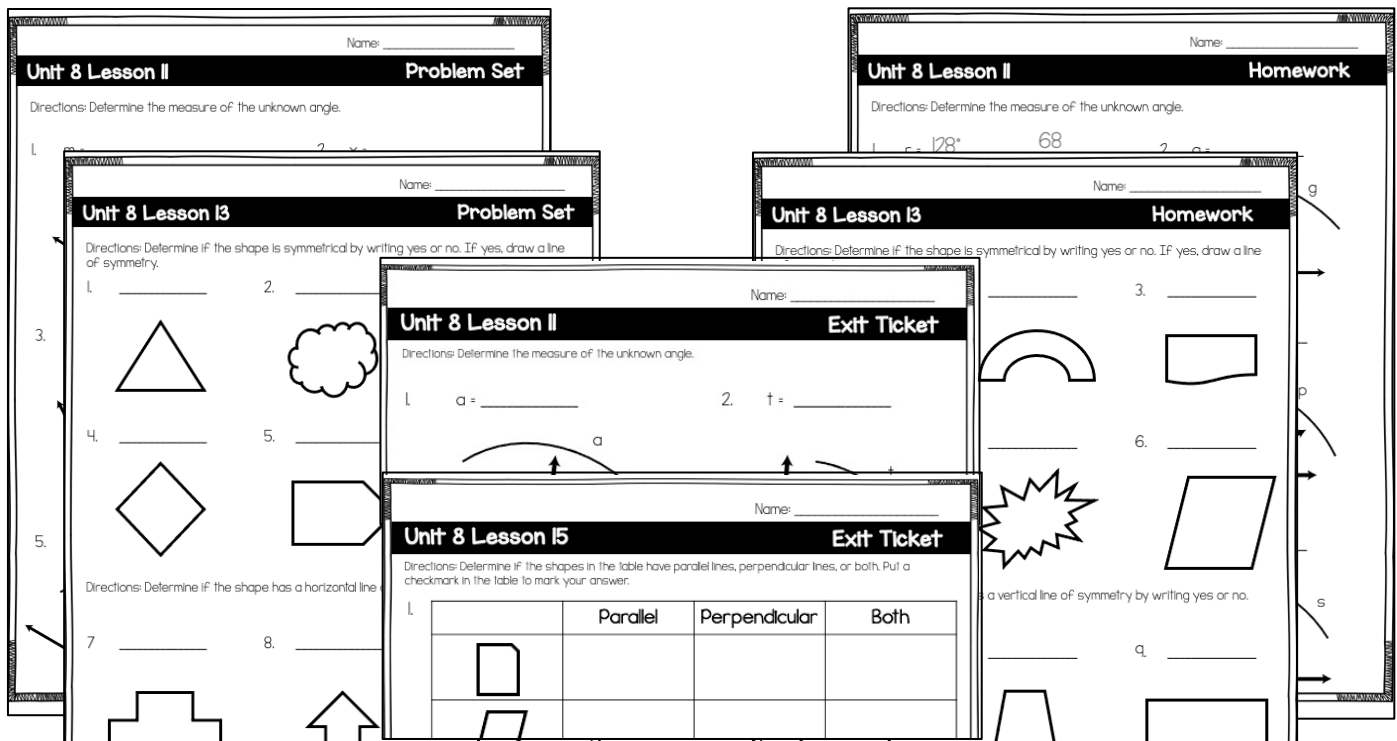
When the students are finished with the sort, check their work and allow them to correct any mistakes.

NOTES:

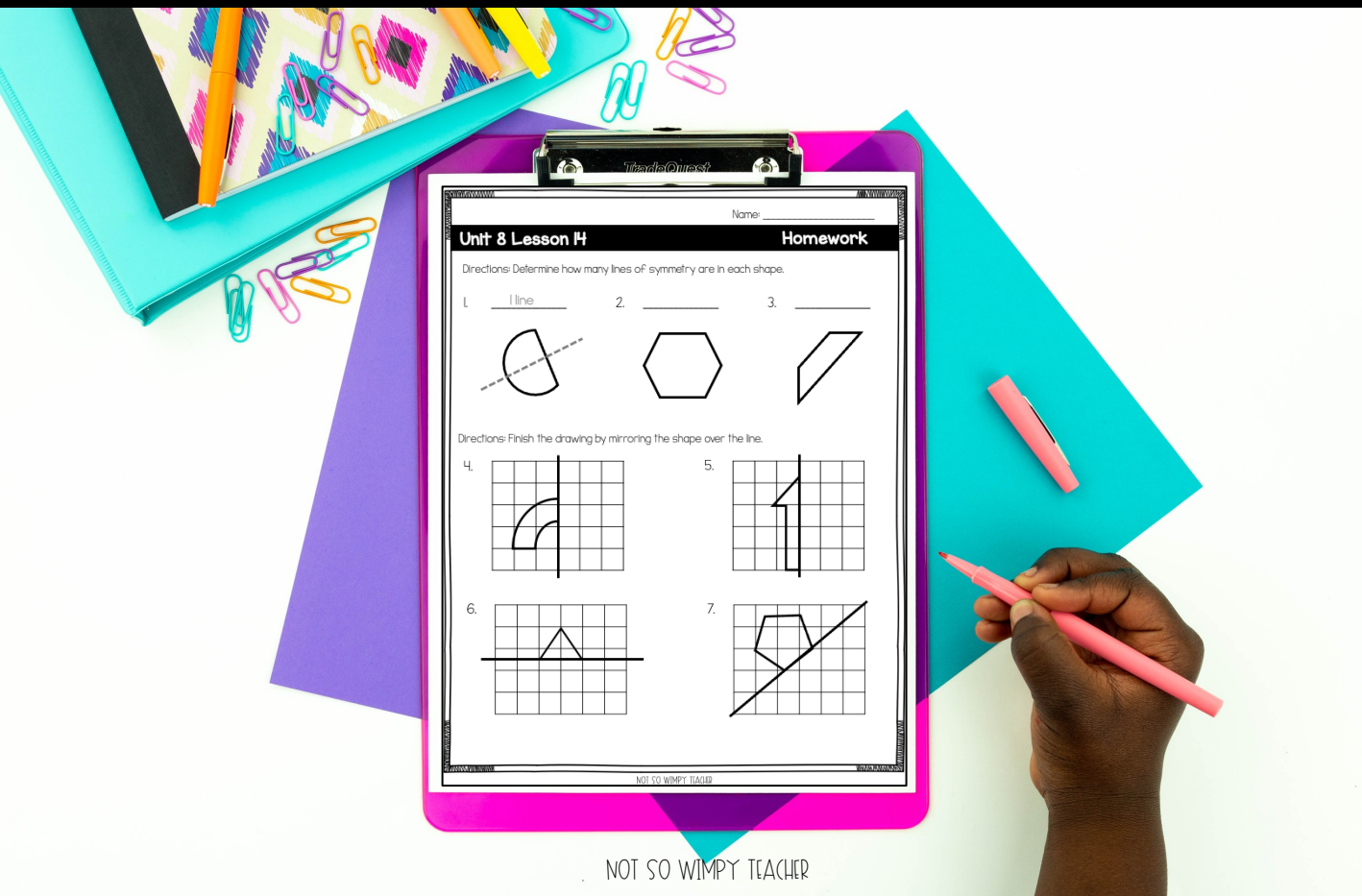
NOT SO WIMPY TEACHER



INCLUDES SMALL GROUP/ MEET WITH TEACHER LESSON PLANS



INCLUDES PROBLEM SETS, HOMEWORK, AND EXIT TICKETS FOR EACH DAY



8.6 Measuring Angles

Fact Fluency

I can use a protractor to measure

QUICK THINK!

Use basic facts to multiply by larger numbers.

Warm Up

Identify the benchmark angle shown.

$$\begin{array}{r} \times 60 = \\ + \end{array}$$

Measuring Angles

Vocabulary Review:

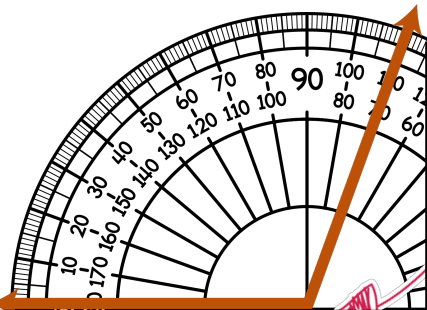
Measuring Angles

To use the protractor, align the angle with the bottom line of the protractor.

an angle that measures 90 degrees

Tip!

You can check to see if an angle is



Centers

	MON.	TUES.	WED.	THURS.
GROUP 1	Meet the Teacher	Independent	Meet the Teacher	Independent
		Math Facts	Technology	Math Facts
		Meet the Teacher	Independent	Meet the Teacher
		Technology	Math Facts	Technology
		Math Facts	Technology	Math Facts
		Independent	Meet the Teacher	Independent
		Technology	Math Facts	Technology

Exit Ticket

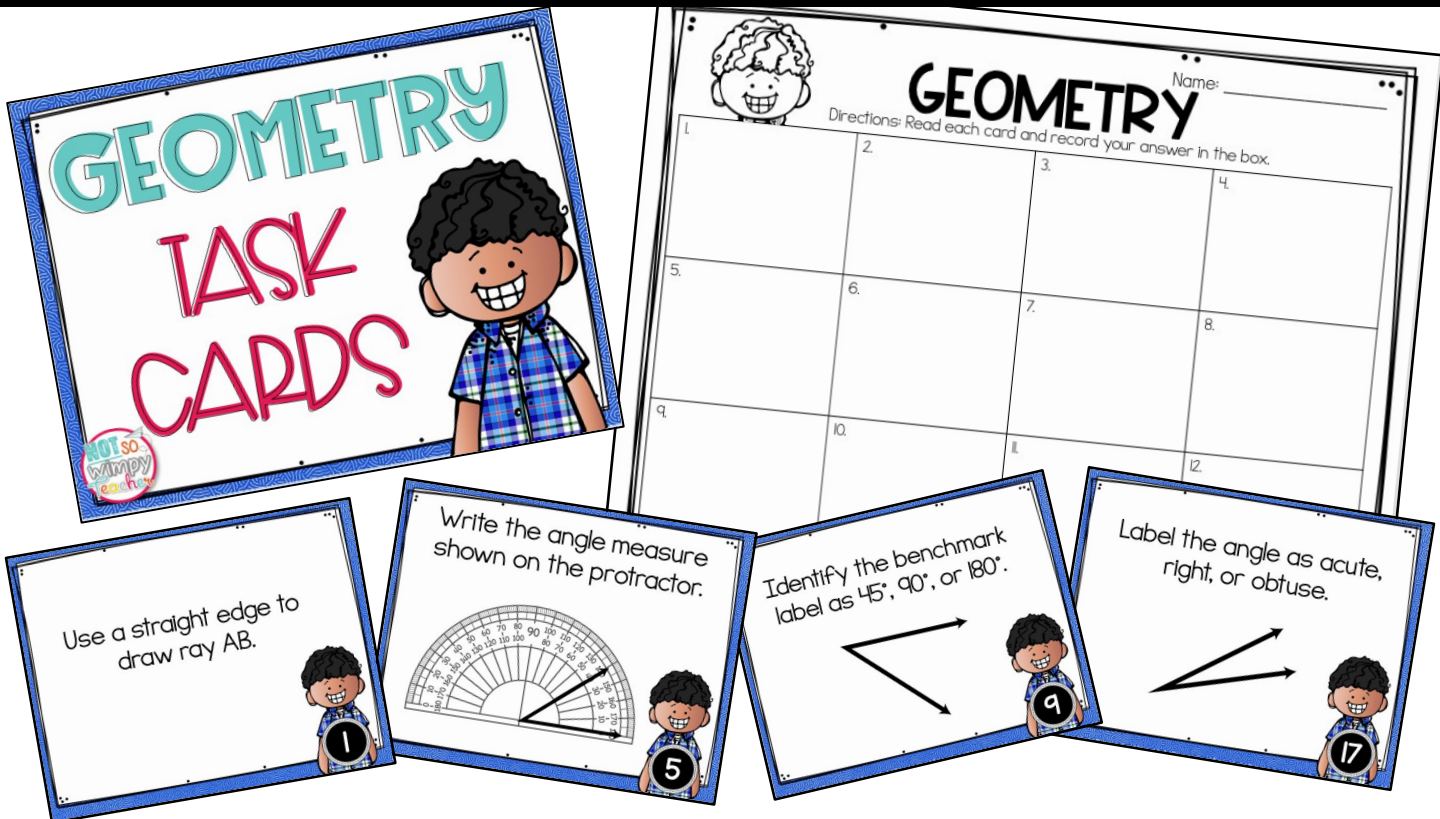
Directions: Use your protractor to measure each angle shown. Write the angle measure on the line.

- _____
- _____

INCLUDES DAILY POWERPOINTS FOR TEACHING MATH SKILLS.



games and task cards are INCLUDED FOR END OF UNIT REVIEW



PBL ACTIVITY

GEOMETRY

AN AQUARIUM-THEMED
PROJECT-BASED
LEARNING ACTIVITY



FEEDING FREQUENCY

The next task you have is to determine which clock represents each animal. Using a protractor, determine each angle formed by the clock hands. Match the correct clock by writing the corresponding animal name.

FEEDING SCHEDULE

Octopus	25°
Penguins	120°
Shinobys	140°
	145°
	90°
	75°
	180°
	60°
	155°



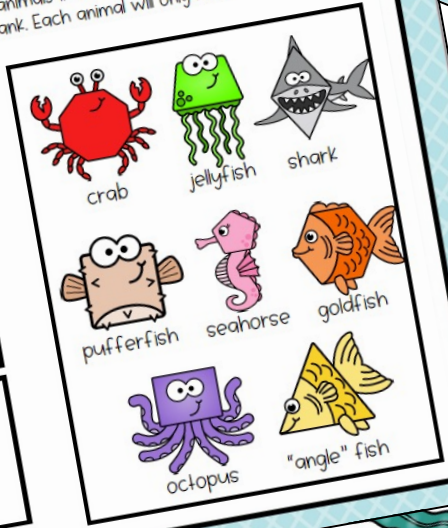
AQUATIC POLYGON SORT

Next, your job is to sort the animals into tanks. Sort the animals into the correct tank based on their sides by writing the name of the animal in the correct tank. Each animal will only be used once.

Animals with only parallel sides

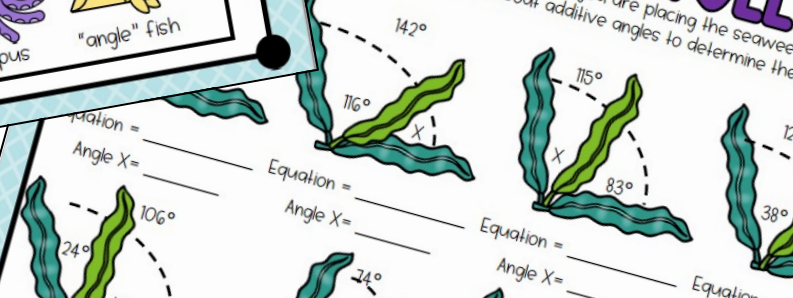
Animals with both parallel and perpendicular sides

Animals with neither parallel nor perpendicular sides



SEAWEED ANGLE

Place seaweed in the fishbowls. As you are placing the seaweed, use what you know about additive angles to determine the angles.



INCLUDES A SPECIAL AQUARIUM-THEMED
PROJECT-BASED LEARNING ACTIVITY

TYPES OF LINES

LINE: a straight figure that extends infinitely in both directions



RAY: a line with one endpoint and one side that extends infinitely



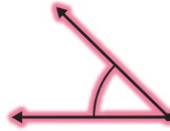
LINE SEGMENT: a line with two endpoints



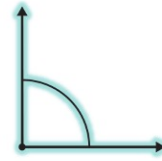
BENCHMARK ANGLES

Angles that are easy to recognize.

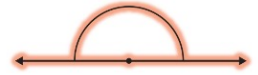
45°



90°



180°



VOCABULARY CARDS AND ANCHOR CHARTS FOR TEACHER AND STUDENTS TO REFERENCE THROUGHOUT THE UNIT

LINE

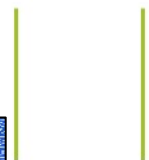
a straight figure that extends indefinitely



PARALLEL

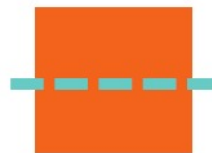
two lines that are the same distance from each other that

Parallel



SYMMETRY

when a shape can be folded along a line and match perfectly



8.7 MEASURING AN

I CAN STATEMENT
I can measure and classify angles.

MATERIALS
8.7 PowerPoint
8.7 printouts
protractor
angle
classification
anchor chart

MINI LESSON
Spend the first few minutes of the lesson. These slides use basic facts to multiply by 1.
Using the PPT, complete the warm-up questions are a review of classifying angles.
Using the PPT, review the following vocabulary: angle, obtuse angle, and benchmark angle.
Tell the students that today we are going to learn, and we are going to measure angles.
Model how to use a protractor to measure an angle to the angle to measure an angle to measure the angles, ask the student right, or acute.

INTERVENTION

8.8 MEET THE TEACHER

MATERIALS FOR TEACHER: whiteboard, marker, eraser, protractor

MATERIALS FOR STUDENTS: whiteboards, markers, erasers, protractors

APPROACHING
Begin the lesson by reviewing how to use a protractor. Then, model how to sketch a 55° angle using the protractor. Use the protractor to make a straight line for the first line of the angle. Then, align the protractor to that line and skip count to find 55°. Show students how to find 55° and that it is between 50 and 60. Draw a line connecting the first line to 55°.
Work together with students to sketch a 145° angle. Ensure each student is aligning the protractor correctly to the bottom line to make sure they are making accurate angle measures.
Repeat with 60°, 95°, and 170°.

ON TRACK
Ask the students to turn and talk to a partner to discuss the important things to remember when using a protractor. For example, aligning the bottom line to the angle, using the correct set of numbers to measure the angles, etc.
Model how to use a protractor to sketch a 55° angle. Have the students remind you of the important things to remember when sketching an angle.
Challenge students to use their protractors to make a 145° angle. Have them check their angles with a partner.
Repeat with 60°, 95°, and 170°.

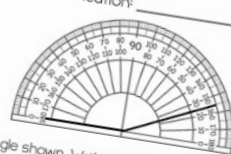
MASTERED
Ask students to use their protractor to sketch a 145° angle. Have students share their angles with the group. Check for accuracy.
Challenge students to sketch a 142° angle. Show students how to use the marks on their protractor to make a 142° angle. Check for accuracy.
Repeat with 32°, 86°, and 17°.

NOTES:


Name: _____

Assessment

17. Angle measure: _____
Classification: _____



18. Angle measure: _____
Classification: _____




19. Angle measure: _____
Classification: _____

20. Angle measure: _____
Classification: _____

TYPES OF LINES

LINE: a straight figure that extends indefinitely

LINE
a straight figure that extends indefinitely



BENCHMARK ANGLES

Angles that are easy to recognize.

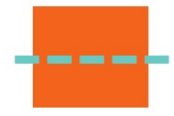
45° 90° 180°



PARALLEL
two lines that are the same distance



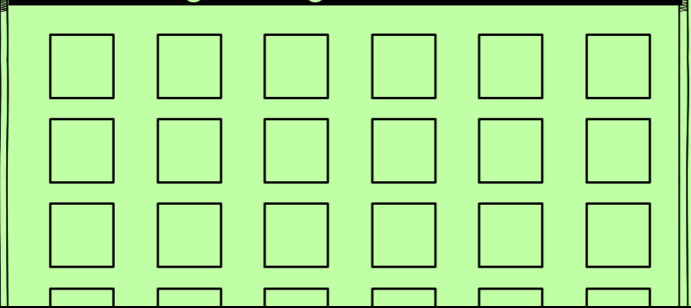
SYMMETRY
when a shape can be folded along a line and match perfectly



Straight Edges



Right Angle Checkers



each day of math is fully planned for you with all the tools you'll need!