

# Unit 14

## Family Letter

Dear Family,

In this unit, *Geometric Figures*, your child will learn how to identify and classify geometric figures, estimate and find angle measures, and recognize a line of symmetry for a two-dimensional figure.

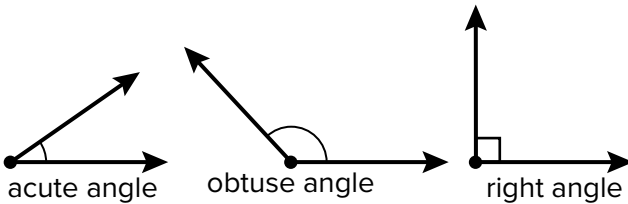
### STEM Career Kid for this Unit

**Hi, I'm Antonio.**

I want to be a robotics engineer. I will use math in my job when I create robots. Students will see how I can use angle measures when placing solar panels on robots.



### What math terms will your child use?

Term	Student Understanding
parallel lines	lines that are equal distance apart and never intersect
angle	an angle is formed when two rays have the same endpoint; Examples: 
line symmetry	a figure has line symmetry if it can be folded over a line so that its two halves match exactly



### What can your child do at home?

Help your child develop fluency with the terms in this unit. Write the terms and definitions on separate index cards. Play a matching game with the cards. Have your child turn over 1 term and 1 definition card each time, matching each term with its definition.

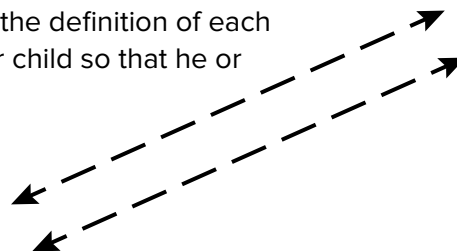
# What Will Students Learn in This Unit?

## Identifying Points, Lines, Line Segments, Angles, and Rays

Your child will learn how to identify points, lines, line segments, angles, rays, perpendicular lines, and parallel lines. They will learn the definition of each term and will draw each figure as well. Work with your child so that he or she becomes fluent with the terms and is able to identify and draw each term.

*Example:*

Draw a pair of parallel lines.



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## Solving Problems with Angle Measures

Your child will learn how to classify angles as right, acute, or obtuse. He or she will also learn to estimate the measures of angles using benchmark angles and will use a protractor to find exact measures of angles. Your child will learn that if an angle is decomposed into non-overlapping parts, the angle measure is the sum of all the parts. He or she will learn how to write and solve addition and subtraction equations to find the missing angle measure in a figure. Your child will also learn how to solve real-world problems in which an angle measure is missing.

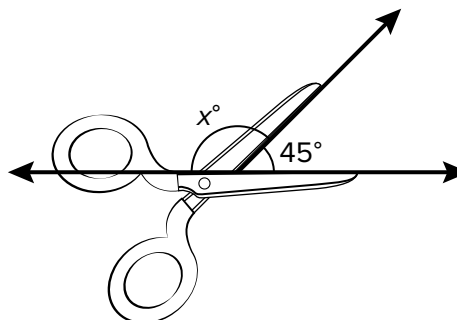
*Example:*

The combined angle measure is  $180^\circ$ .

Find the unknown angle measure.

$$45^\circ + x = 180^\circ$$

$$x = 135^\circ$$



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## Classifying Polygons and Triangles

Your child will learn how to classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines. He or she will also learn how to classify triangles. Your child will learn that triangles can be classified by their angle measures: *acute*, *obtuse*, *right* and by their side lengths: *equilateral*, *isosceles*, *scalene*. He or she will build on these fundamentals in order to classify triangles by their angles and side lengths.

*Example:*

Classify the triangle by its angles and side lengths.

The triangle has an obtuse angle. The triangle has no equal side lengths. The triangle is an obtuse scalene triangle.

