## Learning Targets

## Measuring Circles

## Lesson 1: How Well Can You Measure?

- I can examine quotients and use a graph to decide whether two associated quantities are in a proportional relationship.
- I understand that it can be difficult to measure the quantities in a proportional relationship accurately.


## Lesson 2: Exploring Circles

- I can describe the characteristics that make a shape a circle.
- I can identify the diameter, center, radius, and circumference of a circle.


## Lesson 3: Exploring Circumference

- I can describe the relationship between circumference and diameter of any circle.
- I can explain what $\pi$ means.


## Lesson 4: Applying Circumference

- I can choose an approximation for $\pi$ based on the situation or problem.
- If I know the radius, diameter, or circumference of a circle, I can find the other two.


## Lesson 5: Circumference and Wheels

- If I know the radius or diameter of a wheel, I can find the distance the wheel travels in some number of revolutions.


## Lesson 6: Estimating Areas

- I can calculate the area of a complicated shape by breaking it into shapes whose area I know how to calculate.


## Lesson 7: Exploring the Area of a Circle

- If I know a circle's radius or diameter, I can find an approximation for its area.
- I know whether or not the relationship between the diameter and area of a circle is proportional and can explain how I know.


## Lesson 8: Relating Area to Circumference

- I can explain how the area of a circle and its circumference are related to each other.
- I know the formula for area of a circle.


## Lesson 9: Applying Area of Circles

- I can calculate the area of more complicated shapes that include fractions of circles.
- I can write exact answers in terms of $\pi$.


## Lesson 10: Distinguishing Circumference and Area

- I can decide whether a situation about a circle has to do with area or circumference.
- I can use formulas for circumference and area of a circle to solve problems.


## Lesson 11: Stained-Glass Windows

- I can apply my understanding of area and circumference of circles to solve more complicated problems.

