

## Objective

By the end of this lesson, you will be able to convert between metric units of area using mm, cm, m, km, and hectare (squared).

## Materials and Prep

- Pen or pencil
- Calculator (optional)

No prior knowledge is required for this lesson.

## Activities

- Activity 1: Measurement Conversion Practice

Measure the area of objects around your house using a ruler or tape measure. Record the measurements in millimeters, centimeters, and meters. Then, convert the measurements into different units of area using the conversion factors provided.

- Activity 2: Real-Life Examples

Research and find real-life examples where knowledge of metric units of area is important, such as measuring the size of a soccer field or calculating the area of a swimming pool. Write a short paragraph explaining why understanding metric units of area is useful in these situations.

- Activity 3: Create a Conversion Chart

Create a conversion chart that includes the following metric units of area: millimeter (mm), centimeter (cm), meter (m), kilometer (km), and hectare (ha). Write down the conversion factors between each unit and practice converting between them.

## Talking Points

- When we measure area, we are finding out how much space an object or a surface covers.
- In the metric system, we have different units to measure area, such as millimeters, centimeters, meters, kilometers, and hectares.
- To convert between metric units of area, we need to use conversion factors. These conversion factors help us change the unit of measurement while keeping the same amount of area.
- For example, to convert from millimeters to centimeters, we divide the number of millimeters by 10. This is because there are 10 millimeters in 1 centimeter.
- To convert from centimeters to meters, we divide the number of centimeters by 100. This is because there are 100 centimeters in 1 meter.
- To convert from meters to kilometers, we divide the number of meters by 1000. This is because there are 1000 meters in 1 kilometer.
- To convert from square meters to hectares, we divide the number of square meters by 10,000. This is because there are 10,000 square meters in 1 hectare.
- Remember, when converting between metric units of area, it's important to keep track of the decimal places and units to ensure accuracy.