

## G5 Playlist: Converting Measurement Units to Solve Real World Problems

Aligns with *CCSS.MATH.CONTENT.5.MD.A.1*: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

### Related Standards

- [CCSS.MATH.CONTENT.4.MD.A.1](#): Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...*
- [CCSS.MATH.CONTENT.4.MD.A.2](#): Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.



## Objectives

In this module, you will learn and practice the following skills:

- Convert among metric units of measurements.
- Convert among customary units of measurements.
- Use metric conversions to solve multi-step real world problems.
- Use customary conversions to solve multi-step real world problems.

Let's get started!

## Key Terms

- The **metric measurement system** is a system of measurement based on multiples of 10, using the base unit of *meter* for length, the base unit of *gram* for mass, and the base unit of *liter* for capacity. The metric measurement system uses prefixes to show how large a unit is.
  - **Kilo-** is a prefix that means the unit is 1,000 times greater than the base unit.
  - **Hecto-** is a prefix that means the unit is 100 times greater than the base unit.
  - **Deca-** is a prefix that means the unit is 10 times greater than the base unit.
  - **Deci-** is a prefix that means the unit is  $1/10$  the size of the base unit.
  - **Centi-** is a prefix that means the unit is  $1/100$  the size of the base unit.
  - **Milli-** is a prefix that means the unit is  $1/1,000$  the size of the base unit.
- The **customary measurement system** is the system of measurement commonly used in the United States. It measures length in inches, feet, yards, and miles; weight in ounces, pounds, and tons; capacity in fluid ounces, cups, pints, quarts, and gallons; and time in seconds, minutes, hours, days, weeks, months, and years.

