

MD Measurement and Data

- **5.MD.A Convert like measurement units within a given measurement system.**
 - **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.**
 - [Compare and convert customary units of length \(5-Y.2\)](#)
 - [Compare and convert customary units of weight \(5-Y.3\)](#)
 - [Compare and convert customary units of volume \(5-Y.4\)](#)
 - [Compare and convert customary units \(5-Y.5\)](#)
 - [Conversion tables - customary units \(5-Y.6\)](#)
 - [Compare customary units by multiplying \(5-Y.7\)](#)
 - [Convert customary units involving fractions \(5-Y.8\)](#)
 - [Convert mixed customary units \(5-Y.9\)](#)
 - [Add and subtract mixed customary units \(5-Y.10\)](#)
 - [Multi-step problems with customary unit conversions \(5-Y.11\)](#)
 - [Compare and convert metric units of length \(5-Y.13\)](#)
 - [Compare and convert metric units of weight \(5-Y.14\)](#)
 - [Compare and convert metric units of volume \(5-Y.15\)](#)
 - [Compare and convert metric units \(5-Y.16\)](#)
 - [Convert metric units involving decimals \(5-Y.17\)](#)
 - [Conversion tables - metric units \(5-Y.18\)](#)
 - [Convert metric mixed units \(5-Y.19\)](#)
 - [Add and subtract metric mixed units \(5-Y.20\)](#)
 - [Multi-step problems with metric unit conversions \(5-Y.21\)](#)
 - [Multi-step problems with customary or metric unit conversions \(5-Y.22\)](#)
- **5.MD.B Represent and interpret data.**
 - **5.MD.B.2 Make a line plot (dot plot) to display a data set of measurements in fractions of a unit. Use operations on fractions for this grade to solve problems involving information presented in line plot (dot plot).**
 - [Create and interpret line plots with fractions \(5-V.11\)](#)
- **5.MD.C Geometric measurement: Understand concepts of volume and relate volume to multiplication and to addition.**
 - **5.MD.C.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.**
 - **5.MD.C.3.a A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.**
 - [Volume of rectangular prisms made of unit cubes \(5-DD.13\)](#)
 - **5.MD.C.3.b A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.**
 - [Volume of rectangular prisms made of unit cubes \(5-DD.13\)](#)
 - **5.MD.C.4 Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and non-standard units.**
 - [Volume of rectangular prisms made of unit cubes \(5-DD.13\)](#)
 - **5.MD.C.5 Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.**

- **5.MD.C.5.a Find the volume of a right rectangular prism with whole-number edge lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.**
 - [Volume of rectangular prisms made of unit cubes \(5-DD.13\)](#)
- **5.MD.C.5.b Apply the formula $V = l \times w \times h$ and $V = B \times h$ (where B stands for the area of the base) for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems.**
 - [Volume of cubes and rectangular prisms \(5-DD.15\)](#)
 - [Volume of cubes and rectangular prisms: word problems \(5-DD.17\)](#)
 - [Compare volumes and dimensions of rectangular prisms: word problems \(5-DD.18\)](#)
- **5.MD.C.5.c Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems.**
 - [Volume of compound figures \(5-DD.\)](#)

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