Grade 5 – Unit 9
Polygons and Volume

Parent Letter

Dear Fifth Grade Families,

In Unit 9, students will work on the following fifth grade Common Core standards in the Geometry (G) and Measurement and Data (MD) domains.

5.G.3	Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
5.G.4	Classify two-dimensional figures in a hierarchy based on properties.
5.MD.3	Recognize volume as an attribute of solid figures and understand concepts of volume measurement. 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. 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.
5.MD.4	Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
5.MD.5	Relate volume to the operations of multiplication and addition and solve real world mathematical problems involving volume. a. Find the volume of a right rectangular prism with whole-number side 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. b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ 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. 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.

Unit 9 Concepts:
- Understand category attributes of polygons
- Classify polygons based on their attributes
- Recognize and measure volume
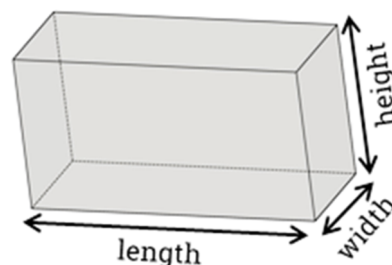- Find volume of one and two non-overlapping right rectangular prisms

Unit 9 Vocabulary:
- Polygons: Triangle, Quadrilateral
- Angles: Right, Obtuse, Acute
- Lines: Parallel, Perpendicular
- Congruent
- Volume: unit cube, cubic unit
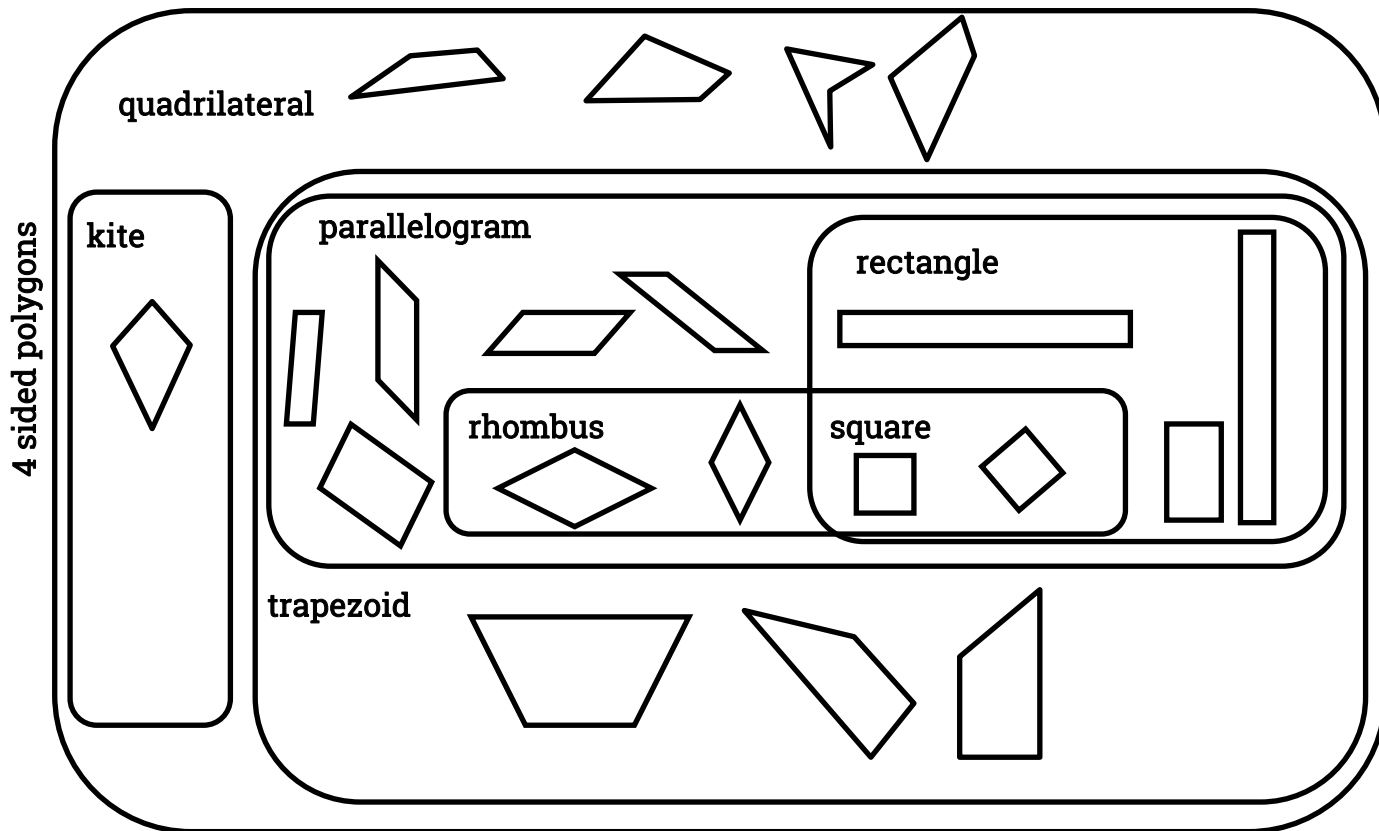- Rectangular prism
- Length, height, width

$$\text{Volume} = l \times w \times h$$

Need a review?
Have your student login to Swun Math to access lesson support videos.

We encourage you to talk with your child daily about what was learned in math class.
Thank you for your support!

4 sided polygons

quadrilateral

kite

parallelogram

rectangle

rhombus

square

trapezoid

triangles	right	acute	obtuse
equilateral	*Not possible*		*Not possible*
isosceles			
scalene			

3 sided polygons