

Chapter 10 Vocabulary & Notes

cubic units Used to measure volume. Tells the number of cubes of a given size it will take to fill a three-dimensional figure.

lateral face One side of a three-dimensional figure. It is any flat surface that is not a base.

pyramid A three-dimensional figure with at least three lateral faces that are triangles and only one base.

rectangular prism A three-dimensional figure with two parallel bases that are congruent rectangles.

slant height The height of each lateral face.

surface area The sum of the areas of all the surfaces (faces) of a three-dimensional figure.

$$S.A. = 2lh + 2lw + 2hw$$

three-dimensional figure A solid figure that has length, width, and height.

triangular prism A prism that has triangular bases.

vertex The vertex of a prism is the point where three or more planes intersect.

volume The amount of space inside a three-dimensional figure. Volume is measured in cubic units.

*** Volume of a Rectangular Prism ***

$$V = lwh \text{ or } V = Bh$$

*** Surface Area of a Rectangular Prism ***

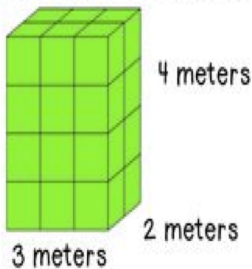
$$S.A. = 2lh + 2lw + 2hw$$

*** Volume of a Triangular Prism ***

You must first find the area of the Base by taking $b \times h$ Divided by 2 and then Multiply the Height of the prism.

$$\text{So } V = \frac{(b \times h)H}{2} \text{ or } V = Bh$$

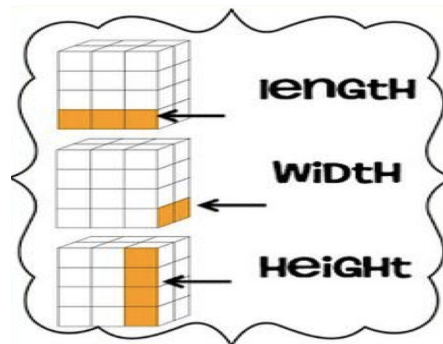
Volume: measurement of 3D space inside an object



$$v = l \times w \times h$$

$$v = 3 \times 2 \times 4$$

$$v = 24 \text{ meters}^3$$



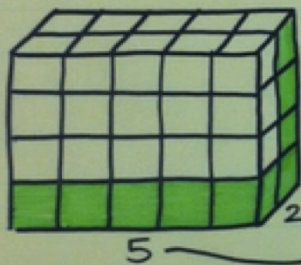
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VOLUME

Volume is: a measure of how much space a solid object takes up

*Volume is measured in CUBIC units

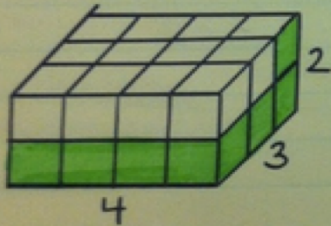
formula:



Area of Base
length x width

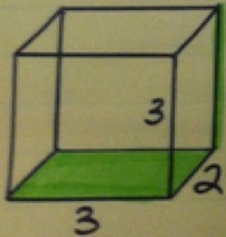
$$(5 \times 2) \times 4 = 40 \text{ inches}^3$$

x height



$$\text{Area of Base} \times \text{height} = \text{Volume}$$
$$(4 \times 3) \times 2 = 24 \text{ in}^3$$

Length x Width



$$3 \times 2 \times 3 =$$
$$6 \times 3 = 18 \text{ in}^3$$

cube:
3 sides, 3 fls, 3-D
Length * width * height
VOLUME