

Week 2 - Density

What is Density?

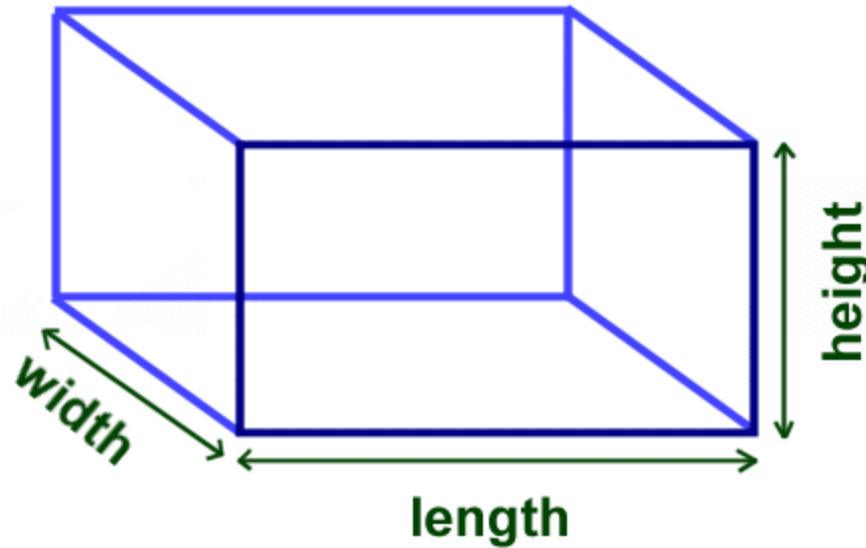
- Conceptually, density is best described as the compactness of a material.
- Less dense materials have a smaller concentration of mass in a given volume, or a mass spread out over a large volume of space.
- Dense materials have a large concentration of mass in a given volume, or a mass confined to a small volume of space.

Formula

Calculating density is generally as difficult as it is to find the volume of the object. This is because density can be calculated using the formula:

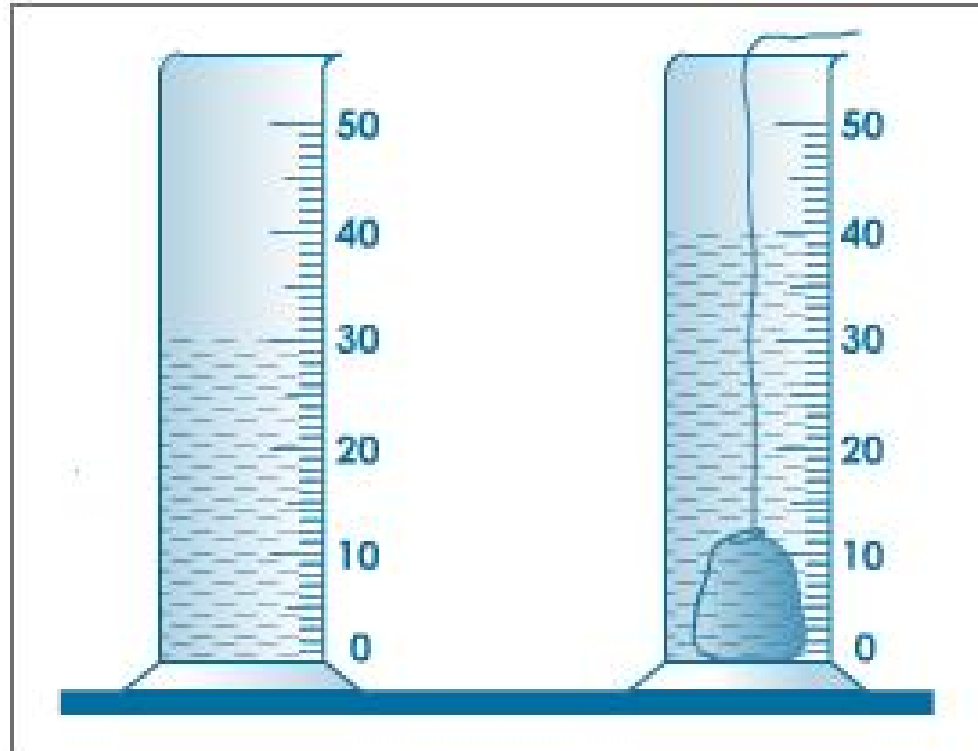
$$d = \frac{m}{V}$$

Volume – Using Dimensions



$$V = (\text{length})(\text{width})(\text{height})$$

Volume – Water Displacement



$$V = \text{Final volume} - \text{Initial volume}$$