

## Vocabulary: Density via Comparison



### Vocabulary

- Density – the amount of mass in a given volume.
  - Density is calculated by dividing mass by volume:  $D = m \div V$ .
  - Density of liquids is usually measured in grams per milliliter (g/mL).
  - Density of solids is usually measured in grams per cubic centimeter (g/cm<sup>3</sup>).
- Mass – the amount of matter in an object.
  - In the metric system, the basic units of mass are the gram (g) and kilogram (kg). A paper clip has a mass of about one gram.
  - Mass is similar to weight but is not exactly the same. Your weight depends on the gravity of the planet you are on. If you went to the Moon, your *mass* (amount of matter that makes you up) would be the same, but your *weight* would be much less than on Earth because the Moon has less gravity than Earth.
- Volume – the amount of space an object occupies or takes up.
  - In the metric system, the basic unit of volume is the liter (L), which is about two pints.
  - The volume of a small amount of liquid is expressed in *milliliters* (mL), while the volume of a small amount of solid is expressed in cubic centimeters (cm<sup>3</sup> or cc). One cubic centimeter is equivalent to one milliliter.