The Metric System

The metric system is an internationally agreed upon measurement system based on decimals or powers of 10. Scientists use a refined version called the International System of Units (abbreviated SI). In biology, you will often find a need to describe measurements of length, volume, mass, time, temperature or amount of substance.

International System of Units

Metric Units:

- length: meter (m)
- volume: liter (L)
- mass: gram (g)
- time: second (s)
- temperature: Celsius (°C)
  - Kelvin (K) is a unit of thermodynamic temperature and is the SI unit. The Kelvin scale in the same as the Celsius or centigrade scale but offset by 273.16
  - Biology uses Celsius predominantly because of the range in which organisms live.
- amount of substance: mole (mol)
  - A mole is a number representing $6.022 \times 10^{23}$ of something
  - Just as a pair of shoes equals 2 shoes, a mole of shoes is $6.022 \times 10^{23}$ shoes
  - Just as a dozen eggs equals 12 eggs, a mole of eggs is $6.022 \times 10^{23}$ eggs

Tags: quantitative reasoning