Vocabulary: Units of Measurement

- Absolute zero – the coldest possible temperature.
  - Absolute zero is equivalent to 0 K, -273.15 °C, or -459.67 °F.
  - At absolute zero, the molecules in a substance do not move.
- Base unit – one of seven units in the *International System of Units* on which other units are based.
  - The seven base units are meters (length), kilograms (mass), seconds (time), kelvin (temperature), amperes (electrical current), candelas (light intensity), and moles (amount of a chemical element or compound).
- Imperial units – units of measurement developed in Great Britain and used throughout the British Empire.
  - Imperial units are also known as English units, British units, or U.S. customary units.
  - Examples of imperial units include pounds, ounces, stones, and tons for mass; inches, feet, yards, furlongs, miles, and leagues for distance; and cups, pints, quarts, gallons, and barrels for volume.
  - Imperial units are only used in a few countries today, including the United States.
- International System of Units – a modern form of the *metric system*.
  - The symbol for the International System of Units is SI, for the French *Système Internationale*.
- Metric system – a system of units developed in France in 1790.
  - The metric system consists of base units and *prefixes*.
- Prefix – a word or symbol placed before a unit that multiplies that unit by a power of 10.
  - Examples of metric prefixes include *micro-* (1/1,000,000), *milli-* (1/1,000), *centi-* (1/100), and *kilo-* (1,000).
  - Prefixes can be applied to any unit in the metric system.
- Scientific notation – a convenient method of writing very large or very small numbers.
  - A number in scientific notation consists of a number between 1 and 10 multiplied by a power of 10.
    - For example, 41,600,000 in scientific notation is 4.16×10^7.