

Vocabulary: Temperature of Various Substances

Vocabulary

- calorimeter:*** An insulated vessel for measuring the amount of heat absorbed or released by a chemical or physical change.
- energy:*** Energy is an abstract property something has which enables it to do work.
- The more energy something has, the more work it can perform.
 - Every kind of energy falls into one of two general categories: kinetic energy or potential energy.
- heat:*** The transfer of thermal energy from one system (or body) to another.
- Heat may be thought of as internal energy in transit.
 - Thermal energy is transferred from the system with the higher temperature to the system with the lower temperature.
 - The greater the heat absorbed by a material, the more rapidly the atoms within the material begin to move, and thus the greater the rise in temperature.
- kinetic energy:*** The energy that an object has because of its motion.
- The kinetic energy is the work done by an external force to bring the body from rest to a particular state of motion.
- temperature:*** The measurement of the average kinetic energy of the molecules in an object or system.
- It can be measured with a thermometer.
 - Provides an indicator of the direction of internal energy flow: when two objects are in contact, internal energy goes from the one at the higher temperature to the one at the lower temperature.
- thermal energy:*** The internal energy in a substance due to the movement of the atoms and molecules within that substance.
- The thermal energy of a substance is equal to the total kinetic energy of its atoms and/or molecules.
- thermometer:*** An instrument for measuring temperature.
- work:*** Work is the energy required to move an object against an opposing force.
- Work is usually expressed as a force times a displacement.
 - Dropping a stone from a window involves no work, because there is no force opposing the motion (unless you consider air friction...)
 - Pushing against a stone wall involves no work, unless the stone wall actually moves.