**Energy: Conservation and Transfer**

**Vocabulary List**

Thermal energy: Comes from the motion of tiny particles in matter. The faster the particles move, the warmer the matter can get. Examples of thermal energy are stoves and matches.

Transfer: Heat transfer is the transition of thermal energy or simply heat from a hotter object to a cooler object. This transition can be made by conduction, convection or radiation.

Temperature: The measurement of heat

Conduction: The transfer of heat through solids that are in contact (touch) each other.

Insulator: An object that does not allow the flow of heat and electricity. Any material that keeps energy such as electricity or heat from easily transferring through it.

Conductor: An object that allows the flow of heat and electricity. Any material that energy such as electricity or heat can easily transfer through it.

## Convection: The flow of heat through a liquid or a gas, causing hot molecules to rise and cooler molecules to sink.

Convection cell: A circular pattern of air rising, air sinking, and wind.

Radiation: The transfer of heat through electromagnetic waves.

Electromagnetic waves: The invisible waves that heat is transferred through. For example, the heat produced by the sun travels from the sun to the earth through electromagnetic waves.