INTRODUCTION TO THERMAL PHYSICS

Heat energy is an important type of energy. It changes the hotness or coldness of an object, i.e. it changes the temperature of a body.

Just as Physics studies energy and how it affects matter so does Thermal Physics, which is a branch of Physics, studies heat energy and how it affects matter.

The major effect of heat on objects is the change of temperature it causes. Other effects are change of state, expansion, change in physical properties, chemical change, changes in pressure, and thermionic emission.

The kinetic theory of Matter explains the existence of heat energy (which is the ability to change temperature) in the particles of matter. It explains that the particles of matter are at random motion thus its ability to change temperature (and volume and pressure) when supplied with heat by natural sources of heat like fire, sun, etc.

When the temperature of an object increases, it could transfer heat energy to another object; thus, its own kind of force. Force in thermal physics simply implies the transfer of heat energy. This force could do work by changing temperature, physical properties, state of an object etc. Thermodynamics is the term that describes the conversion of heat energy.