

Heat

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1. Introduction

1.1 Heat

Nature of Heat

1. Heat is a form of energy.
2. Heat is energy in transit.
3. It is intimately connected with motion. It is the **total** kinetic energy of the molecules/atoms making up a system.
4. Heat always flows from one body to another. The direction is decided by the temperature of the two bodies.

1.2 Temperature

1. Temperature is a quantitative measure of the heat/thermal energy of a system.
2. It characterizes the thermal state of a body and determines whether energy will flow from or toward it from another body in thermal contact ref: conduction.

1.2.1 Differences between Heat and Temperature

1.3 Effects of Heat on matter

Expansion and contraction Phase change Combustion

1.4 Specific heat

1.5 Methods of transfer of heat

1.6 Measurement of Heat and Temperature

1.6.1 Clinical thermometer

1.6.2 Temperature scales

1.7 Relative humidity

Humidity affects how hot we feel.

1.8 Regulation of body temperature

Effect of vaporization. Circulation.

1.9 Use of heat for sterilization

1.10 Application in nursing