* Conduction: Conduction is when heat moves from one object to another object through direct touch.
* Convection - The transfer of thermal energy through a fluid by the motion of the fluid itself.
* Radiation - The transfer of thermal energy through electromagnetic waves.
* Fourier's Law - A mathematical expression that describes the rate of heat conduction through a material.
* Heat Flux - The rate at which heat energy is transferred through a surface.
* Thermal Resistance - A property that describes the ability of a material to resist the flow of heat.
* Thermal Diffusivity - A property that describes how quickly heat can diffuse through a material.
* Heat Transfer Coefficient - A measure of the ability of a fluid to transfer heat through a surface.
* Thermal insulation: A material used to reduce the rate of heat transfer.
* Phase change: The process by which a substance changes from one phase to another, such as from liquid to vapor.
* Heat of vaporization: The amount of energy required to vaporize a unit mass of a substance.
* Heat of condensation: The amount of energy released when a unit mass of a vapor condenses to a liquid.
* Blackbody - An idealized object that absorbs all incident radiation and emits radiation according to its temperature.
* e - emissivity
* Radiant Heat Transfer - Heat transfer by radiation.
* Sigma - Stefan-Boltzmann constant
* Radiant Heat Transfer - Heat transfer by radiation.
* Heat Exchanger - A device used to transfer heat between two fluids at different temperatures.
* Interfacial area: The area of contact between two immiscible phases, such as liquid and gas.
* Interfacial heat transfer coefficient: The measure of the ability of two immiscible phases to transfer heat at their interface.
* Multiphase: more than 1 phase
* Homogeneous flow: A type of multiphase flow in which the phases are uniformly mixed.
* Heterogeneous flow: A type of multiphase flow in which the phases are not uniformly mixed.
* Bubble: A spherical or nearly spherical gas pocket in a liquid
* Droplet: A small spherical or nearly spherical liquid pocket in a gas.
* Pressure drop: The drop in pressure that occurs as a fluid flows through a pipe or other conduit.
* Flow pattern: A term used to describe the characteristic pattern of fluid flow in a two-phase mixture.
* Annular flow: A flow regime in which the liquid phase forms a thin film on the walls of the conduit, surrounded by gas.
* Mass flow rate: The amount of mass that flows through a given cross-sectional area per unit time.
* Momentum transfer: The transfer of momentum between the phases in a two-phase mixture.
* Energy transfer: The transfer of thermal energy between the phases in a two-phase mixture.
* Turbulence: The chaotic, unpredictable motion of fluid particles
* Reynolds number: A dimensionless number that represents the ratio of inertial forces to viscous forces in a fluid
* Heat Generation - The production of heat within a material due to chemical reactions, nuclear reactions, or other sources.
* Boiling: The process by which a liquid changes into a vapor at a specific temperature and pressure.
* Evaporation: The process by which a liquid changes into a vapor at any temperature and pressure.
* Condensation: The process by which a vapor changes into a liquid at a specific temperature and pressure.