



SNS College of Technology

(An Autonomous Institution)

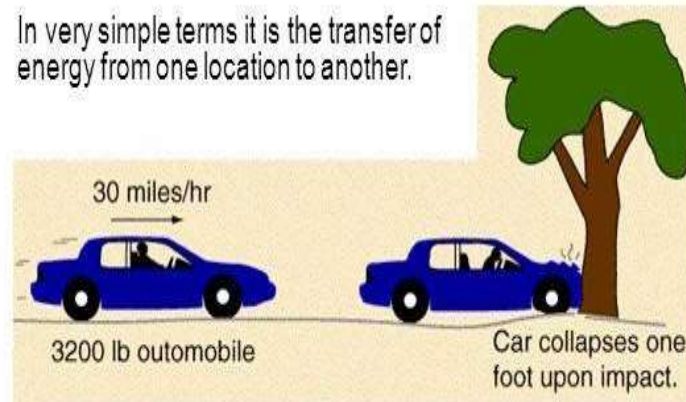
Heat Transfer and Mass Transfer for food products
Unit - 3/ Basic definitions



Radiation

- The most basic definition of radiation is the transfer of energy from one location to another. For example a car hitting a tree.

In very simple terms it is the transfer of energy from one location to another.



- **Radiation** is defined as energy in transit as either electromagnetic wave or energetic particles.



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Radiation: Basic Definitions

- Radioactive materials are composed of atoms that are unstable. An unstable atom gives off excess energy until it becomes stable. The energy the atom emits is **radiation**. The process by which an atom changes from an unstable state to a more stable state by emitting radiation is called **radioactivity**.
- Radiation can be classified as either non-ionizing (low energy) or ionizing (high energy) radiation. Types of **non-ionizing radiation** are ultraviolet light, visible light, infrared radiation, radio frequency radiation and microwaves. **Ionizing radiation** is given off by the sun (cosmic rays), radioactive materials, and high energy electronic devices (X-ray machines).