

Energy Study Guide

DEFINE THE FOLLOWING:

Conduction: **The transfer of heat through direct contact (touch). Heat transfers from a warmer object to a cooler object.**

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

Radiation: **The transfer of heat through electromagnetic waves.**

GIVE 3 EXAMPLES OF CONVECTION:

1. **A hot air balloon rising.**
2. **Heat moving within a pot that is being heated (water boiling).**
3. **Wind, uneven heating and cooling within the ocean, etc.**

GIVE 3 EXAMPLES OF CONDUCTION:

1. **Touching a hot stove.**
2. **Ironing clothes.**
3. **Ice melting, washing your hands with warm water, etc.**

GIVE 3 EXAMPLES OF RADIATION:

1. **The Sun heating Earth.**
2. **A campfire warming a person or area.**
3. **Space heater warming a room, microwave, etc.**

Materials that transfer heat easily are called **CONDUCTORS**

Materials that slow the transfer of heat are called **INSULATORS**

Energy ALWAYS moves from a **WARMER** object to a **COOLER** object.

NAME 5 CONDUCTORS OF HEAT:

1. **Copper**
2. **Gold**
3. **Iron**
4. **Steel**
5. **Silver**

NAME 5 INSULATORS OF HEAT:

1. **Wool or cotton**
2. **Rubber**
3. **Plastic**
4. **Styrofoam**
5. **Glass, wood, etc.**