

HEAT

THE NATURE OF HEAT

- **Heat:** the form of energy which can make the _____ of an object change /increase
- **Unit of heat energy:** _____
- **Temperature:** a measure of how _____ is an object
- **Thermometer:** measuring temperature in _____ (°C)
- **Source of Heat:**
 1. Electrical (toaster)
 - 2.
 - 3.
 - 4.
- **Uses of Heat:** _____
- **Problems of Heat:** _____
- **The Kinetic Theory and Heat:**
 1. All matter is: made up of _____ that are in constant _____
 2. Particles in a solid vibrate about _____ positions
Particles in a liquid _____
 3. Particles in a gas _____

THE TRANSFER OF HEAT

- **3 Methods of Heat Transfer:**
- **Conduction:**
 1. Occurs mostly in solid/liquid/gas (circle right one)
 2. Heat passes from particle to particle by _____
 3. Metals are good _____.
 4. Plastic and foam are examples of _____.
- **Convection:**
 1. Occurs in solid/liquid/gas (circle right one)
 2. Hot sections of the fluid are less _____ than cooler sections.
 3. This causes hot sections of fluid to _____ and cold sections of the fluid to _____.
- **Radiation:**
 1. Unlike convection and conduction, radiation does not need _____ to transfer heat
 2. Example of radiation heat transfer: _____
 3. Good absorbers and radiators are _____ in colour.

Using a diagram, show how a vacuum flask slows down conduction, convection and radiation.

EFFECTS OF HEAT AND ENERGY

1. A solid or liquid that is heated will _____ in size.
 2. The word used for increasing in size is _____ while getting smaller is called _____.
 3. Draw a diagram to show how a thermostat works.
- **Thermometers:** work because a liquid (alcohol) _____ when heated. An alcohol is used instead of water because _____
 - **Changes of State:**

Liquid to gas is called: _____

Liquid to solid is called: _____

Gas to liquid is called: _____

Solid to liquid is called: _____

Solid to gas is called: _____