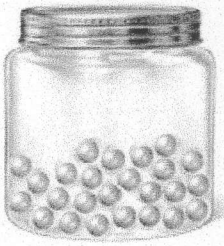
I THREE STATES OF MATTER:

A. Particles of Matter

1. Matter is made up of tiny particles called _____ & _____
2. They are always in _____& always _____ into one anoth

SOLID

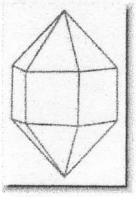


LIQUID

GAS

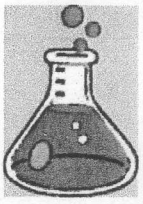
B. Solids

1. They have a definite _____ & _____
2. The particles in a solid _____ in place.
3. _____ solids have particles arranged in _____.



4. _____solids have particles that do _____ have a special arrangement.

C. Liquids



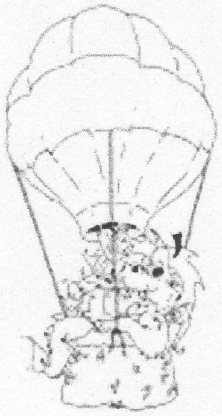
1. They have definite _____.
2. They take the shape of the _____.
3. Their particles _____ past each other.
4. Two other properties of liquids:

a) Surface tension:_____

_____

b) Viscosity:_____

D. Gases



1. They have _____definite shape or volume.
2. The particles move _____ and can _____ completely from one another.

II BEHAVIOR OF GASES:

A. Describing Gas Behavior

1. Temperature- measure of _____

   _____

   SO….the hotter it is, the _____ the particles move.
2. Volume- amount of _____ that an object takes up.

   SO…if a balloon is heated, it will _____.
3. Pressure-the amount of _____ exerted on a surface,

   SO …the _____ particles of gas a container, the _____ pressure there is in that container.

B. Gas Behavior Laws

1. Boyle's Law: volume and pressure are indirectly related, so…

   The _____ the pressure, the _____ the volume.
2. Charles's Law: volume and temperature are directly related, so..

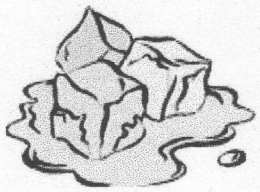
   The _____ the temperature, the _____ the volume.

III CHANGES OF STATE:

A. Energy and Changes of State:

1. Changing from one _____ form to another.
2. All changes of _____ are _____ changes.

B. Melting: Solid to Liquid



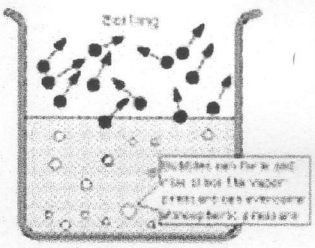
1. As the _____ increases, the particles of the solid move _____ until it _____.
2. Energy must be _____ to make a solid _____.
3. Energy has to be _____ so it is *endothermic.*

C. Freezing: Liquid to Solid

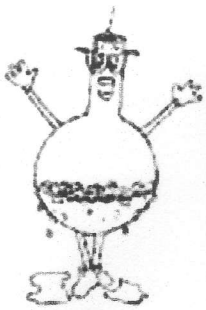
1. As the temperature _____, the particles move_____ until it _____.
2. Energy must be _____ so it is *exothermic*.

D. Evaporation: Liquid to Gas

1. Energy is needed…..so when you sweat, _____ is removed from your _____ and you are _____
2. Evaporation occurs at the _____ of the liquid.
3. _____ occurs throughout the _____.
4. Atmospheric pressure affects the boiling point.
5. The _____ the pressure, the _____the boiling point.
6. Water in Saratoga, boils at _____.



E. Condensation: Gas to Liquid

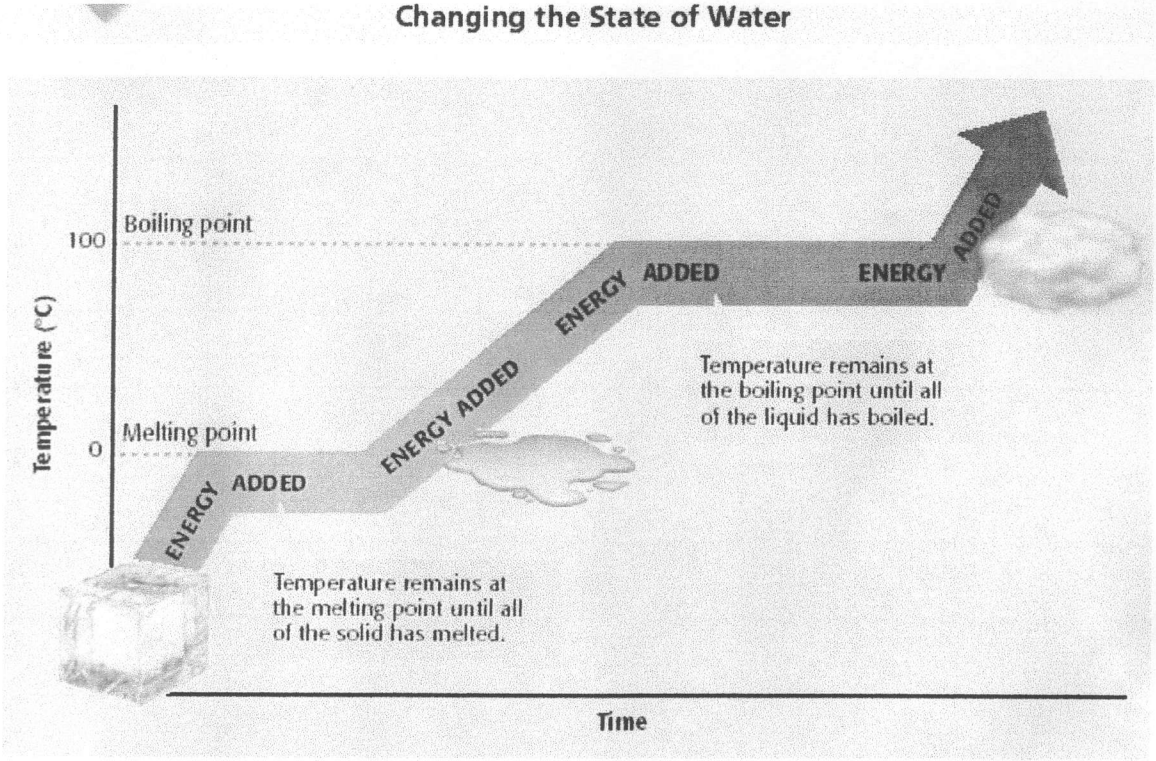


1. Condensation _____-is the _____ at which a gas becomes a liquid.
2. Energy must be _____.

E. Sublimation: Solid to Gas

1. Skips the _____ stage.
2. Example: dry ice (frozen _____ _____)

F. Change of Temperature Vs Change of State



G. Summary