

**Solids, Liquids and Gases**  
**TxBk pg 190-192**

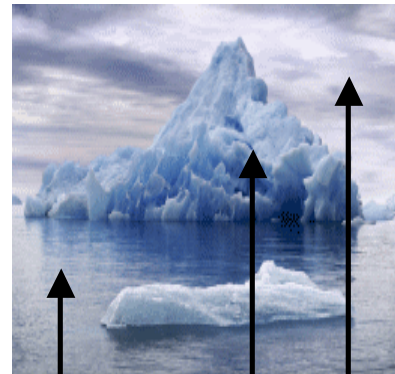
What is our world made of?

States of Matter:

- Every substance in the world around us exists as a \_\_\_\_\_  
\_\_\_\_\_

States of matter

- Solid (\_\_\_\_)
- Liquid (\_\_\_\_)
- Gas (\_\_\_\_)



\*\*\*Matter is anything which \_\_\_\_\_

Properties of Solids:



### Properties of Liquids:



### Properties of Gases:



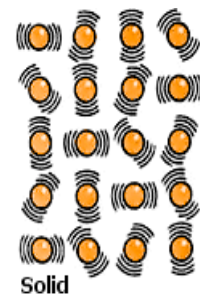
### Matter: Particle Theory

What does the particle theory tell us?

- Explains the \_\_\_\_\_ of solids, liquids and gases
- Imagine solids, liquids and gases to be made up of \_\_\_\_\_
- The particles are \_\_\_\_\_

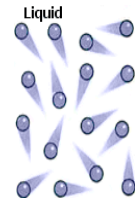
### Particle Theory: Solids

- Particles arranged in \_\_\_\_\_ way
- Strong \_\_\_\_\_ holding them together
- Can't move \_\_\_\_\_
- Can \_\_\_\_\_ about position



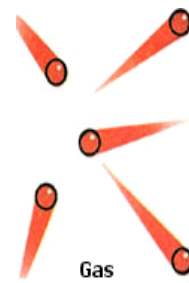
Particle Theory: Liquids

- Particles in \_\_\_\_\_ & can \_\_\_\_\_ each other
- \_\_\_\_\_ holding them together- \_\_\_\_\_ than in solid
- No \_\_\_\_\_ of particles
- Has \_\_\_\_\_ of its own
- Always takes up the \_\_\_\_\_

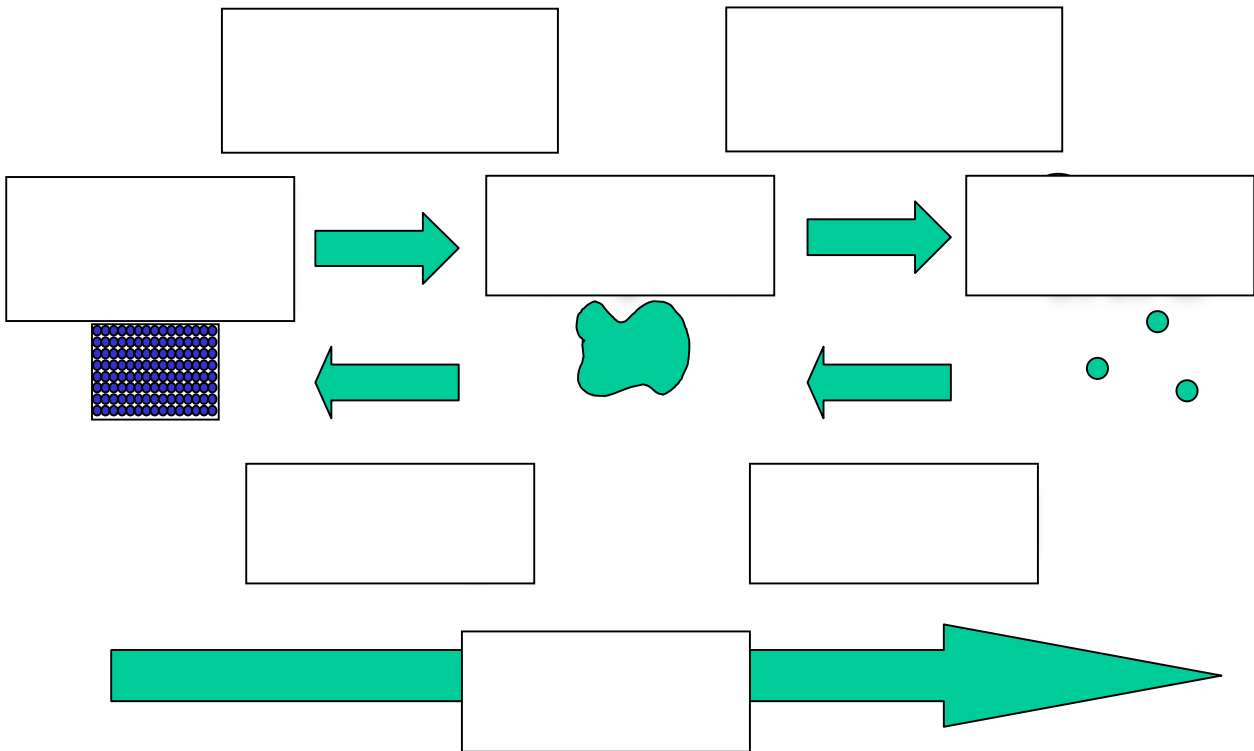


Particle Theory: Gases

- Particles much \_\_\_\_\_ from each other than in a solid or liquid
- \_\_\_\_\_ between gas particles
- Complete freedom of \_\_\_\_\_ into \_\_\_\_\_ available space
- Move about \_\_\_\_\_ with each other and the walls of the container



Change of State:



### Change of State: Melting Point

- Solid is \_\_\_\_\_ – heat energy causes \_\_\_\_\_
- Heating continues – particles move \_\_\_\_\_
- \_\_\_\_\_ from fixed position – begin to \_\_\_\_\_ each other
- The temperature at which the solid melts – \_\_\_\_\_

### Change of State Definition: Melting Point

The melting point is \_\_\_\_\_  
\_\_\_\_\_

### Change of State: Boiling Point

- Liquid heated – particles get \_\_\_\_\_ & move \_\_\_\_\_
- Eventually \_\_\_\_\_ have enough energy to overcome \_\_\_\_\_
- Particles break away from \_\_\_\_\_ and form \_\_\_\_\_
- Liquid – \_\_\_\_\_
- Particles escaping quickly causes \_\_\_\_\_ forming inside the liquid (water vapour in case of water) – boiling point

### Change of State Definition: Boiling Point

The boiling point is \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Change of State: Evaporation

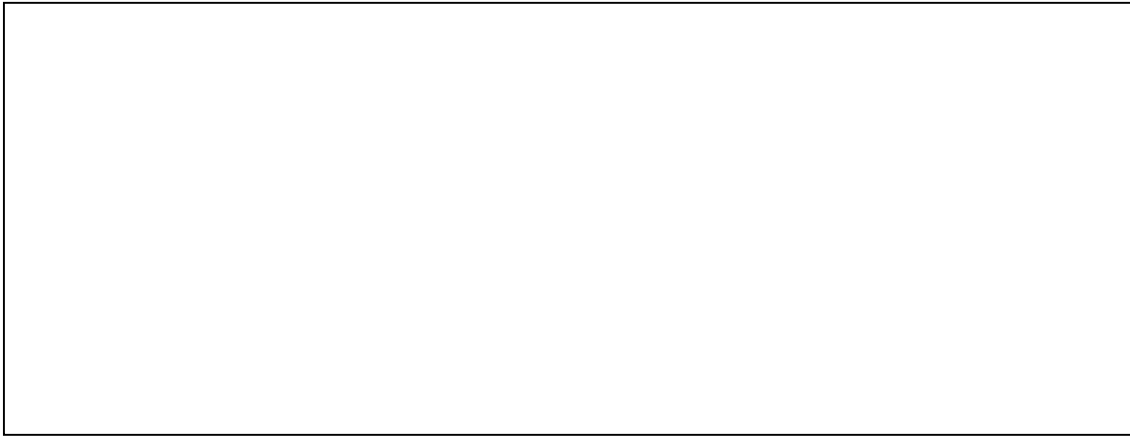
- What happens if there are puddles on the road on a sunny day?
- Sun gives some particles \_\_\_\_\_
- Particles have enough energy to overcome \_\_\_\_\_ holding them together
- Break away from \_\_\_\_\_ & go \_\_\_\_\_
- Some liquid has \_\_\_\_\_ to form a \_\_\_\_\_
- Evaporation is \_\_\_\_\_

## Evaporation VS Boiling Point

- Liquid doesn't have to be \_\_\_\_\_ to its \_\_\_\_\_ for evaporation to occur – evaporation from \_\_\_\_\_ is always taking place

## Sublimation

- Some substances when heated change \_\_\_\_\_
- Iodine and solid carbon dioxide (dry ice)
- Reverse: gas to solid - \_\_\_\_\_



## Change of State – Condensation

- When gas \_\_\_\_\_
- Particles \_\_\_\_\_, become \_\_\_\_\_ to each other
- \_\_\_\_\_ formed eventually
- Steam (\_\_\_\_\_) cooled when it hits the \_\_\_\_\_ mirror
- Particles slow down, become \_\_\_\_\_
- Liquid formed eventually

## Change in State – Freezing

- When liquid \_\_\_\_\_
- Particles \_\_\_\_\_, become \_\_\_\_\_
- \_\_\_\_\_ formed eventually

