Physical Science - Unit: Phases of Matter Name: _____ Period: ____ Mailbox _____

COMPARING PHASES/STATES OF MATTER GRAPHIC ORGANIZER

Particles are also called? pg. 476 _____, _____, _____

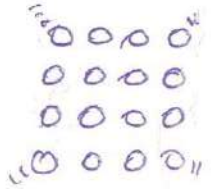
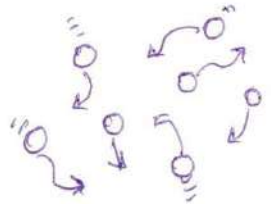
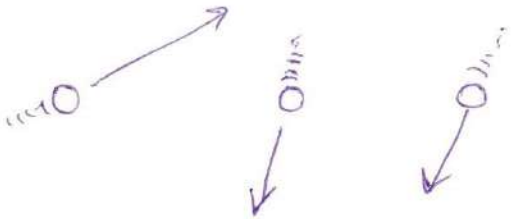
1-Solid: fig.2&3 pg.477	**2-Liquid:** Liquids Flow pg.478	**3-Gas:** Gas State pg.478
Describe the particles (movement) KE: Describe forces of attraction:	Describe the particles (movement) KE: Describe forces of attraction:	Describe the particles (movement) KE: Describe forces of attraction:
4 - Draw a picture of particles:	5 - Draw a picture of particles:	6 - Draw a picture of particles:
7 - Shape:	8 - Shape:	9 - Shape:
7 - Volume:	8 - Volume:	9 - Volume:

10 - Solids cont. Effect of Temperature on Volume:	**11 - Liquids cont.** Effect of Temperature on Volume:	**12 - Gases cont.** Effect of Temperature on Volume:
10 - Solids cont. Effect of Pressure on Volume:	**11 - Liquids cont.** Effect of Pressure on Volume:	**12 - Gases cont.** Effect of Pressure on Volume:

Physical Science - Unit: Phases of Matter Name: Key 2019 Period: ____ Mailbox _____

COMPARING PHASES/STATES OF MATTER GRAPHIC ORGANIZER

Particles are also called? pg. 476 atoms, molecules, ions, compounds

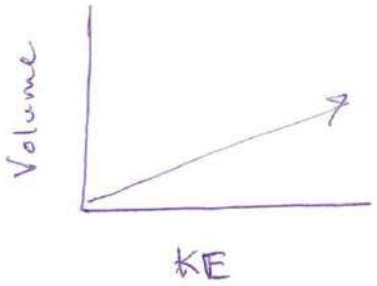
1-Solid: fig.2&3 pg.477	**2-Liquid:** Liquids Flow pg.478	**3-Gas:** Gas State pg.478
Describe the particles (movement) KE: KE - Kinetic Energy lowest vibrate in place Describe forces of attraction: FA strongest of the states of matter	Describe the particles (movement) KE: medium KE particle freely move about Describe forces of attraction: FA average yet strong enough to keep particles together	Describe the particles (movement) KE: highest KE Particles hardly interact with one another Describe forces of attraction: FA weak
4 - Draw a picture of particles: 	5 - Draw a picture of particles: 	6 - Draw a picture of particles: 
7 - Shape: definite defined shape amorphous - malleable, plastic crystalline - highly structured break or shatters	8 - Shape: shape defined by container and gravity viscosity: thick or thin	9 - Shape: no definite shape
7 - Volume: cm^3 definite - low →	8 - Volume: mL semi-definite medium →	9 - Volume: cm^3 or mL indefinite highest

10 - Solids cont.

Effect of Temperature on Volume:

or Kinetic E.

Exception water

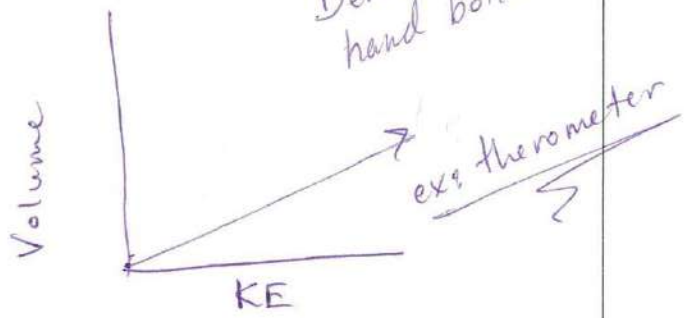


increase temp increase vol.

11 - Liquids cont.

Effect of Temperature on Volume:

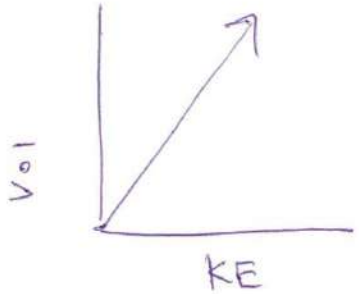
Demo hand boiler



increase temp increase vol.

12 - Gases cont.

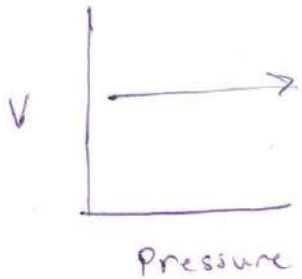
Effect of Temperature on Volume:



10 - Solids cont.

Effect of Pressure on Volume:

Vol increase

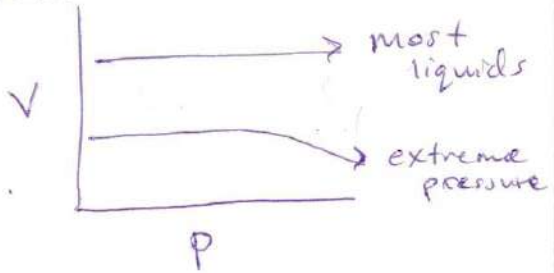


little to no effect

11 - Liquids cont.

Effect of Pressure on Volume:

Vol increase

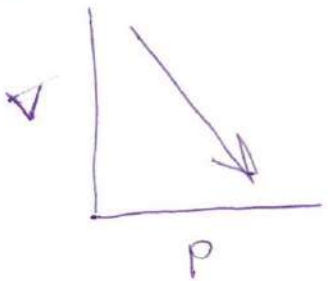


little to no effect

12 - Gases cont.

Effect of Pressure on Volume:

Vol increase



increase pressure decrease vol.

Side notes:

4 fundamental Forces

Strong Nuclear force, Weak Nuclear Force, Gravity, Electromagnetism

FA force of attraction

Scale - a single hair is 60,000 nanometers dia.
1mm equals 1000 micrometers & 1μm = 1000nm
A single atom 0.1 — 0.6 nanometers