REVIEW

Chapter 2 : Lesson 2C

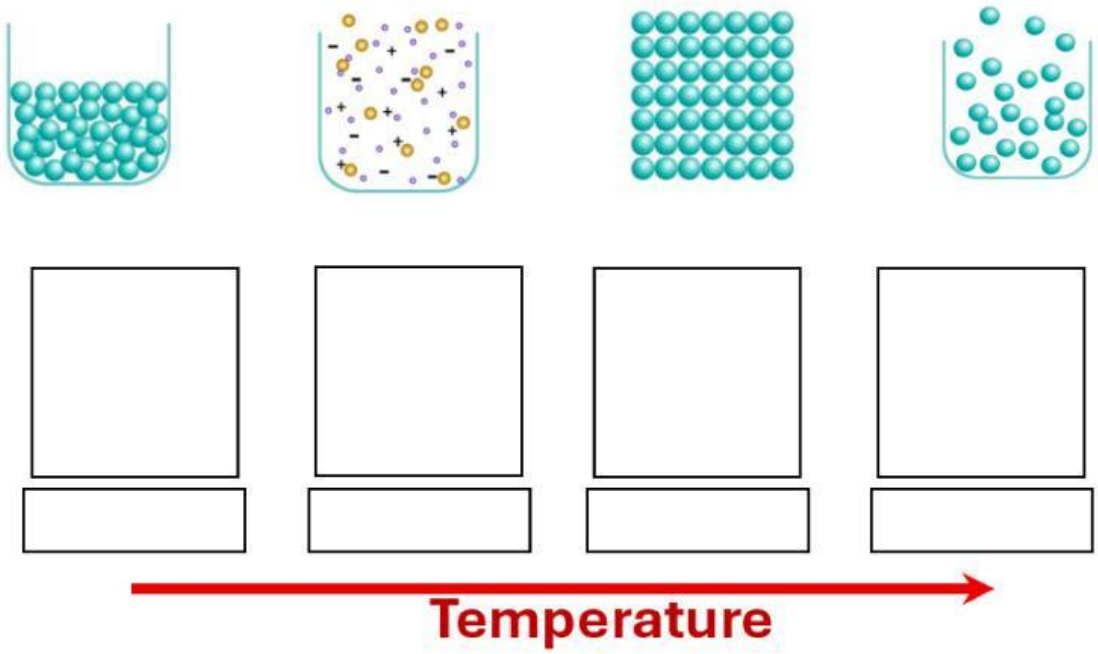
1. Explain Particle Motion by Dragging & Dropping each of the following items into the correct box :

Phase in which Particles can only vibrate in place	Phase in which Particles have the least Kinetic Energy	Particles move rapidly and freely in all directions
Phase in which Particles have highest Kinetic Energy		Particles can move and "slide" past each other
Has a definite / fixed shape due to rigid particle positions	Easy to compress because Particles are very far apart	Has no fixed Volume due to fast, free-moving particles

Liquids	Solids	Gasses

LIVEWORKSHEETS

2. **The diagram below indicates how Temperature affects the motion of Particles within a substance. Label the 4 states of matter correctly at the bottom of the diagram, and drag and drop the images into the correct spots on the diagram :**



If Temperature _____ , Particles gain Kinetic Energy and they begin to move

_____ . Attractive Forces between the Particles _____ .

If Temperature _____ , Particles lose Kinetic Energy and they begin to move

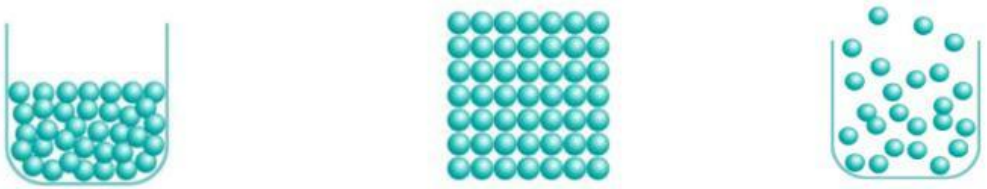
_____ . Attractive Forces between the Particles _____ .

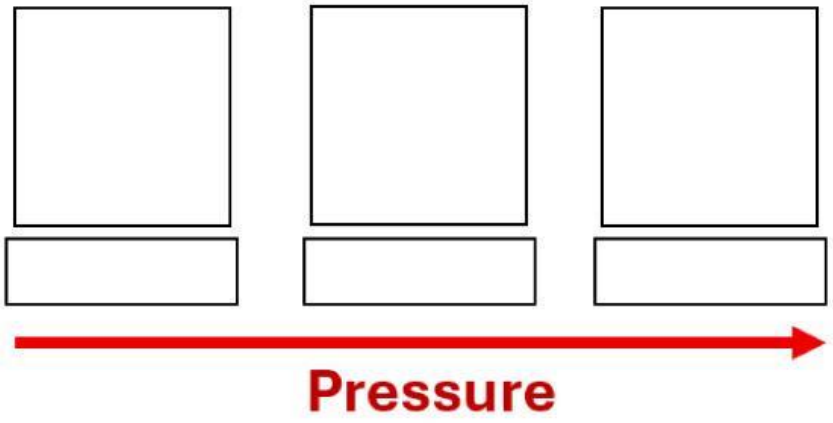
If the Temperature on a Liquid increases sufficiently, the state can change to a _____ .

If the Temperature on a Liquid decreases sufficiently, the state can change to a _____ .

LIVEWORKSHEETS

3. The diagram below indicates how Pressure affects the Arrangement of Particles within a substance. Label the 3 states of matter correctly at the bottom of the diagram, and drag and drop the images into the correct spots on the diagram :





If Pressure _____ , Particles are forced closer together, restricting movement. This leads to a(n) _____ in Kinetic Energy, which in turn leads to _____ Attractive Forces between Particles.

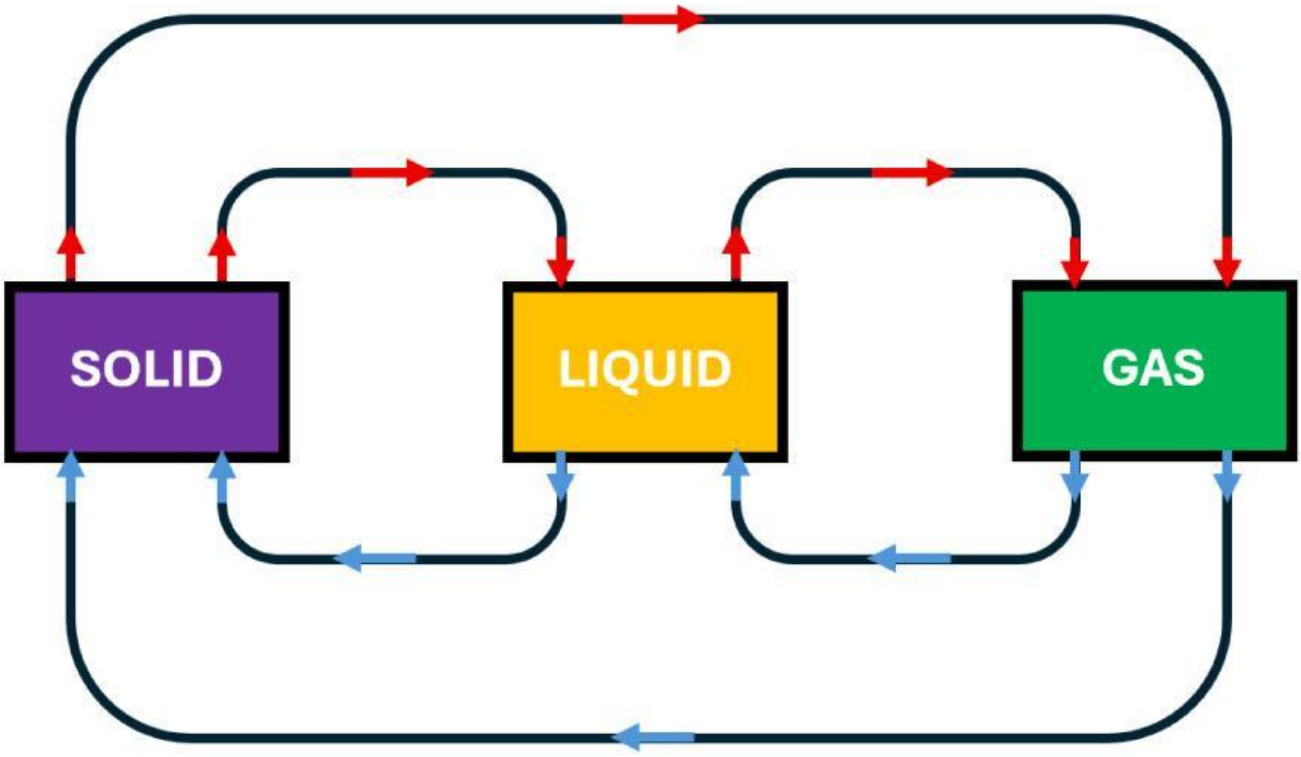
If Pressure _____ , Particles have more space to move around freely. This leads to a(n) _____ in Kinetic Energy, which in turn leads to _____ Attractive Forces between Particles.

If the Pressure on a Liquid increases sufficiently, the state can change to a _____ .

If the Pressure on a Liquid decreases sufficiently, the state can change to a _____ .

LIVEWORKSHEETS

4. **Label all 6 state transition in the diagram below. The RED arrows indicate that a substance is heating up, while the BLUE arrows indicate that a substance is cooling down :**



When a Solid starts to melt, the Kinetic Energy of the Particles _____ , the Particles start to move _____ and bonds between the Particles are _____ .

When a Liquid is cooled enough, the Kinetic Energy of the Particles _____ , the Particles start to move _____ and bonds between the Particles are _____ .

LIVEWORKSHEETS

5. Use the words in the Word Bank to help you formulate a complete explanation the Kinetic-Molecular Theory :

strengthen	weaken	decrease	State of Matter
Particle Motion	Pressure	increase	Particle Arrangement
slower	Kinetic Energy	State Change	faster

The Kinetic-Molecular Theory explains the _____ by describing two factors regarding the Particles within Matter :

- Particle Motion
- Particle Arrangement

_____ is governed by the Kinetic Energy of the Particles.

_____ is governed by the Attractive Forces between the Particles.

The more Kinetic Energy the Particles have, the _____ they will move. This will _____ the Attractive Forces between the Particles to a point where a State Change can happen. The less Kinetic Energy the Particles have, the _____ they will move. This will _____ the Attractive Forces between the Particles to a point where a _____ can happen.

Temperature affects the _____ of the Particles within substance : if the Temperature of a substance increases, the Kinetic Energy of the Particles within the substance will _____ , and vice versa. _____ affects the strength of the bonds between the Particles within a substance : if the Pressure of a substance decreases, the strength of the bonds between the Particles within the substance will _____ , and vice versa.

LIVEWORKSHEETS