INTERNATIONAL INDIAN SCHOOL BURAIDAH. **WORKSHEET for the Academic Year 2023-24**

Class 9. **Subject: Chemistry.** **Date: 17th May 2023**

Lesson 1 Matter in our surroundings

Fill in the blanks:-

1. Matter is made up of small_____.
2. The forces of attraction between the particles are _____ in solids, _____ in liquids and _____ in gases.
3. _____ is the change of gaseous state directly to solid state without going through liquid state, and vice-versa.
4. Evaporation causes _____.
5. Latent heat of fusion is the amount of heat energy required to change 1 kg of solid into liquid at its _____.
6. Solid, liquid and gas are called the three _____ of matter.
7. The smell of perfume gradually spreads across a room due to _____.
8. Rapid evaporation depends on the _____ area exposed to atmosphere.
9. As the temperature of a system increases, the pressure of the gases _____.
10. As the volume of a specific amount of gas decreases, it's pressure _____.
11. As the temperature of a gas decreases, I's volume _____.
12. Gas molecules at higher temperatures have more _____ than at cooler temperatures.
13. Usually the total charge of a plasma is _____.
14. The pressure inside of a sealed tube if you raise the temperature go _____
15. Forces of attraction in liquids are _____ than in solid.

True/ False:-

1. Boiling is a bulk phenomenon.
2. Evaporation is a surface phenomenon.
3. The rate of evaporation depends only on the surface area exposed to the atmosphere.
4. Latent heat of vaporization is the heat energy required to change 1 kg. of a liquid to gas at atmospheric pressure at its melting point.
5. Water at room temperature is a liquid.
6. Atoms in a liquid are father apart than the atoms in a gas.
7. The molecules in a gas are in constant motion.
8. Gases present in air have the same pressure throughout the entire atmosphere.
9. All materials move from solid to liquid to gas as the temperature increases.
10. Because electrons have been stripped away from atoms in plasma, plasmas have a negative charge.
11. It is just as easy to compress a liquid, as it is to compress a gas.
12. Evaporation and boiling are the same processes because molecules move from a liquid to gaseous state.

13. If we pour liquid nitrogen(N_2N2) into a glass, it will change its state to a solid.
14. You may find plasma in a star.
15. A system that changes from a solid state to a liquid state gains energy.
16. Plasmas are all made of the same ions. They have different colours due to different amounts of electricity

Very Short Answer Questions-

1. Name the three states of matter. Give one example of each.
2. What are the two ways in which the physical state of matter can be changed?
3. Explain how gases can be liquefied?
4. What is sublimation? Give examples.
5. Define latent heat of fusion.
6. Define latent heat of vaporization.
7. What produces more severe burns, boiling water or steam?
8. How can the boiling point of a liquid be rased, without adding any impurity?
9. In how many forms did the earlier scientists classify matter?
10. Why does a summer rainstorm lower the temperature?
11. A beaker of a liquid with a vapour pressure of 350 torr at 25°C is set alongside a beaker of water (Vapour pressure of 23.76 torr) and both are allowed to evaporate. In which liquid does the temperature change at a faster rate? Why
12. At a given temperature, one liquid has a vapour pressure of 240 torr and another measure 420 torr. Which liquid probably has the lower boiling point? Which probably has the lower heat of vaporization?
13. A drop of dettol got evenly distributed in water. How?
14. Liquid nitrogen is used as a commercial refrigerant to flash freeze foods. Nitrogen boils at 196°C. What is this temperature on the Kelvin temperature scale?
15. What property or properties of gases can you point to support the assumption that most of the volume in a gas is empty space?
16. What is unit cell?
17. What is the effect on surface tension of temperature?
18. Surface tension is same for different liquids. Explain.