

S1 CHEMISTRY TOPIC 1

Model of Matter Summary

By the end of this unit you should be able to;

- State that solids have a fixed shape.
- State that liquids are runny and take the shape of their container.
- State that gases have no fixed shape and spread out easily to fill the containers shape.
- State that solids contain particles which are closely packed together.
- State that particles in a solid vibrate.
- Explain that heating a solid makes it expand in size because the particles move further apart.
- State that liquids contain particles which are close together, but can move around each other.
- State that gases contain particles which are far apart and move very quickly.
- State that particles move fastest in a gas, then a liquid and then a solid.

- State that diffusion is faster in gases than in liquids and then in solids.
- State that hot air rises as the distance between the air particles is large.
- Explain that during the water cycle water exists in all three states : Solid (snow/hail), Liquid (seas, rivers, lakes, clouds) and Gas (humidity / evaporation from the earth's surface).
- Apply understanding of models of matter to changes in state and the energy involved as they occur in nature.

You should also be able to;

- Present information in the form of a table drawn with a ruler, including headings and using units where appropriate.
- Write a scientific report using the sub-headings; Aim, Hypothesis, Method, Results, Conclusion.
- Draw and label diagrams correctly.
- Draw a bar graph; choosing a suitable scale, labelling the axes and including units where appropriate.