



WEEKLY HOME STUDY PACKAGE - WEEK 2 (12/07/21 – 16/07/21)

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|---------------------------------|--|-------------------|----------|
| Subject | BASIC SCIENCE | Year/Level | 9 |
| Strand | 2.1 – MATTER | | |
| Sub-strand | 2.1.2 – INVESTIGATING MATTER | | |
| Content Learning Outcome | Explore and discuss the fact that particles are small and behave differently in different states of matter under different situations. | | |

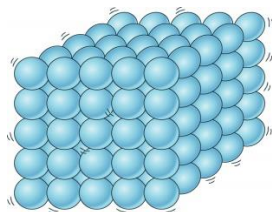
OBJECTIVE: To draw models of change in state.

Structure and properties of Matter

- Matter comes in three forms, or state: solids, liquids and gases.
- The **particle theory of matter** states that everything is made up of particles which are in constant motion.
- These particles vibrate, or move.
- How much they move depends on how much energy they have.
- The theory can be used to explain different the **properties of matter.**

Solids

- Particles in a solid are arranged in a fixed pattern and held very closely together.
- They do not have enough energy to break out of this structure, so only vibrate.
- They have a fixed volume and retain their shape - unless you do something to change them.



Example

Use the particle model of matter to explain what happens to water particles when it is heated.

When water is heated, the liquid particles gain energy and move apart taking up more space. This causes the water to evaporate

Activity (Answer the following questions)

1. Use the particle model of matter to explain what happens to ice particles when it is heated.

(1 mark)

2. State three properties of solid.

(3 marks)
