Groovy Greeks – Year 4 – Autumn 2 – Science—States of Matter



| Vocabulary | |
|--------------|--|
| Word | Definition |
| Temperature | How hot or cold something is. Measured in degrees Celsius (C) |
| Particle | A tiny amount of something. You can't see them with your eyes! |
| Melting | The process of a solid heat- ing and changing into a |
| Evaporating | The process of a liquid heat- ing and changing into a gas |
| Condensation | The process of a gas cooling and changing into a liquid. |
| Freezing | The process of a liquid cooling and changing into a solid. |

Key Questions

What are liquids, solids and gases?

Can we see gas?

How can we prove gas exists?

What temperature does water freeze?

What temperature does water boil?

At what temperature does water turn into gas?

What is condensation?

What happens to condensation when its

temperature increase?

Previous Knowledge

In Year 1 you learnt:

Distinguish between an object and the material from which it is made.

Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock

Describe the simple physical properties of a variety of everyday materials

In Year 2, you learnt:

Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

Find out how the shapes of solid objects made from some materials can be changed by

CHANGING STATES OF MATERIALS Melt Evaporate COLUMN AND THE COLU



Freeze

Condense

SOLID

Stays the same shape Can be held in your hands Can be cut into a new shape

Examples – wood, metal, rock, ice

LIQUID

Flows and can be poured Changes shape to its container Volume never changes

Examples – water, juice, oil

GAS

Often invisible Always fills its container Shape & volume change

Examples – oxygen, hydrogen, carbon dioxide

Working Scientifically

- Asking relevant questions and using different types of scientific enquiries to answer them.
- Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further
- Reporting on findings from enquiries, including oral and written explanations, displays or
 presentations of results and conclusions. Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. questions.
- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers