

ALMOND HILL JUNIOR SCHOOL MEDIUM TERM PLAN

TOPIC TITLE/SUBJECT: Science-States of Matter YEAR GROUP: 4 TERM Spring

Vocabulary

Liquid, gas, solid, plastic, water, solution, freeze, oxygen, burn, boil, solidify, melt, material, steam, dissolve, wood, metal, carbon dioxide, state, matter, material, weight, mass.

Skills

Enquiry and working scientifically skills (LKS2)

- Asks relevant questions
- Sets up simple enquiries, comparative and fair tests
- Makes systematic and careful observations
- Gather and record data accurately in a variety of ways. Interpreting data.
- Makes statements on findings from enquiries using simple scientific vocabulary, drawings, labelled diagrams etc.
- Report findings both in written and oral form.
- Use results to draw simple conclusions, making new predictions and raising further questions.
- Identifies difference, similarities or changes related to simple scientific ideas and processes

What we already know

As part of their general knowledge, some children may know some basic concepts about 'States of Matter' including...

- Some things melt when they are heated
- A temperature is a measure of how hot or cold something is
- Ice lollies are made by freezing a liquid KS1 – Knowledge
- Y2/Sp1 What is a 'solid' shape? Solid shapes made from some materials can be changed

KS1 - Enquiry/working scientifically skills

• Y2/A2 and Sp1- identify and compare materials and their properties

KS2 – Knowledge and Skills

• Y3/A1 – Sound – Set up simple enquiries, comparative and fair tests. Make systematic and careful observations

Illustration



States of Matter



Other/Cross Curricular Links

Speaking & Listening) Discuss what

they are learning and to develop



Application/ Outcomes

Investigation

How does the temperature of water affect the melting rate of a material? Explore melting points of brine and ice.

<u>Make and observe</u> –water cycle – identifying the parts played by evaporation and condensation. <u>Research</u>

Other knowledge-based outcomes:

- Explain differences between solids, liquids and gases in terms of particles
- Understand that ice, water and steam are the same material in different states
- compare and group materials together, according to whether they are solids, liquids or gases

Identifying and classifying

• Object sort into states of matter

Concepts

- There are three states of matter solid, liquid gas
- A matter can change state following a change
- A state of matter is determined by the structure of particles within it.
- Evaporations and condensation are part of 'The Water Cycle'
- Evaporation occurs when water turns into a gas (water vapour)
- Condensation occurs when water vapour turns into a liquid

their wider skills in spoken language

Maths-Data

Adaptation for SEND: Differentiated worksheets/Images and pictures used to decrease need for writing/Worksheets produced to decrease page organisation need