

# What I Need to Know: Y5 Science – States of Matter

*We nurture the curiosity to learn, the courage to lead and the compassion to care.*

Building on our knowledge of states of matter, (Year 4 unit) we will explore separation through filtering, sieving and evaporating. We will compare materials based on their properties and give reasons, based on evidence from comparative and fair tests, for the uses of everyday materials.



## Create, Communicate & Evaluate

- Debate 'Has the production of new materials benefitted modern life?' (Link to plastic pollution)



## Question, Reason, Discuss & Explain

- Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
- Demonstrate that dissolving, mixing and changes of state are reversible changes
- Explain that some changes result in the formation of new materials, and that it is an irreversible change eg burning



## Know & Do

- Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
- Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

## Vocabulary I need to know...

thermal insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/non-reversible change, burning, rusting, new material

## Opportunities to support English and maths

- Skim and scan texts to retrieve information or quotes quickly and accurately
- Summarise main ideas from more than one paragraph
- Make and justify inferences with appropriate evidence from the text
- Provide reasoned justifications for their views, quoting evidence from across a text

## Curriculum Links and Enrichment Activities

- English: Charlie and the Chocolate factory. Melting chocolate.