Catton Grove Primary School - Science		
Year: 5	Topic: Science	Key concepts: Properties and changes of materials

What you might already know:

- ⇒ about everyday materials and their properties and uses (Years 1 and 2)
- ⇒ about temperature and heating and cooling (Year 4)
- ⇒ about evaporation and condensation in the water cycle and the factors that affect evaporation (Year 4)

Scientist spotlight: Rosalind Franklin

She was an English chemist and X-ray crystallographer whose work was central to the understanding of the molecular structures of DNA , RNA , viruses, coal, and graphite.

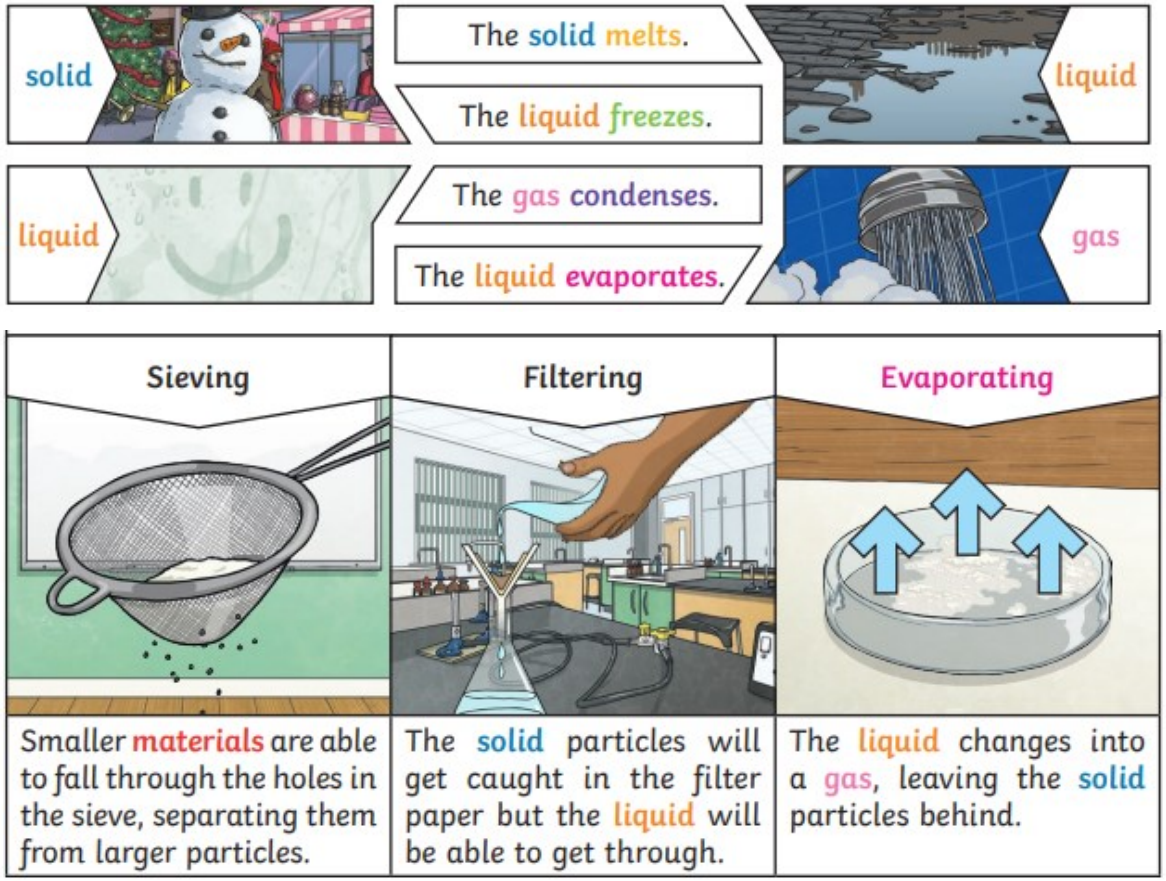
Our Learning Objectives:

- ⇒ To identify the properties of a range of materials and explain their uses.
- ⇒ To plan comparative or fair tests and then take accurate measurements and make accurate observations.
- ⇒ To explore making and separating mixtures.
- ⇒ To use relevant scientific language to explain their ideas.
- ⇒ To classify changes as reversible or irreversible.
- ⇒ To report and present findings from enquiries.

Fun facts!

- ◊ Geckskin™ is a super strong adhesive that can hold up to 330kg on a smooth wall.
- ◊ A thread of spider silk breaks less easily than a thread of steel.
- ◊ Pearls will melt in vinegar.
- ◊ All materials on Earth are made from just 92 naturally occurring materials.

Scientific Core Knowledge:



Scientific Vocabulary:

Rigid: hard and fixed; not flexible.
Elastic: returns to original shape when force removed.
Flexible: easily bends; opposite of rigid and stiff.
Electrical conductor: material that electricity can flow through
Thermal conductor: material that allows heat to pass through it.
Solution: mixture of solid and liquid
Dissolve: when a solid mixes with liquid to make a solution.
Evaporate: heat liquid until it turns into gas.
Soluble: when something can dissolve.
Insoluble: when something can't dissolve.
Reversible change: one that can be undone
Irreversible change: one that cannot be undone

Misconceptions: You might think...

- * that 'material' just means 'fabric'.
- * that 'everyday materials' are single substances.
- * that all liquids contain water.
- * that dissolving means that the substance has disappeared.
- * that melting and dissolving are the same thing.
- * that rusting is a physical change.