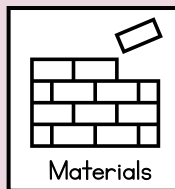


Chemistry

Properties & changes of materials



Year 5 - Spring Term

Review:

What should I already know?

- Materials have more than one property and can be natural or man-made. (Y1)
- Properties of materials make them useful for different purposes. (Y2)
- Properties can include hardness, whether it conducts electricity, and whether it is magnetic or waterproof. (Y2/Y3/Y4)
- There are three main states of matter - solid, liquid and gas. (Y4)
- I know that states of matter is an important part of the water cycle (Y4)

Essential knowledge.

- Materials can be compared and grouped based on their **properties**.
- Certain materials are chosen for their jobs because of their **properties**.
- If a material is soluble, it will **dissolve** in liquid to form a solution.
- You can recover a substance from a **solution** through **evaporation**.
- Your knowledge of solids, liquids and gases to decide how mixtures can be separated, including through **filtering**, **sieving** and **evaporating**.



Filtration



Evaporation

- How **chemists**, such as Spencer Silver, Stephanie Kwolek and Ruth Benerito, create new materials.

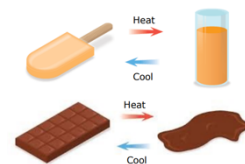
Vocabulary

Material	What things are made from.
Insulator	Does not allow energy (heat/ electricity) to pass through.
Conductor	Does allow energy (heat/ electricity) to pass through.
Solution	A mixture where one substance is dissolved into another.
Soluble	A substance that is able to be dissolved, especially in water.
Insoluble	A substance that is not able to be dissolved.
Dissolve	When something solid mixes with a liquid and becomes part of the liquid.
Reversible	Can be undone.
Irreversible	Cannot be undone.

Essential Knowledge

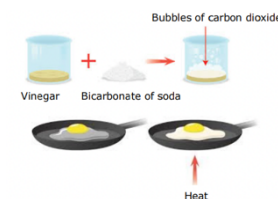
Reversible Change

Changes that can be easily reversed or undone. This may be through changing states, filtering or sieving.



Irreversible Change

When some materials are mixed, this can form new materials and this kind of change is not usually reversible.



Working scientifically.

What is our enquiry type?

Observing Changes Over Time	Pattern Seeking	Identifying, Grouping & Classifying	Fair Testing	Research
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Working scientifically skills

PLAN	Plan enquiry		DO	Measure	
DO	Set up		REVIEW	Evaluate	

