

CHEMISTRY

YEAR 5 and 6: SPRING 1

Mixtures and Separation?

COVERAGE: Mixtures and Separation?

The children will be looking at mixtures and separation. They will look at the scientific meanings of the words and also the scientific skills of sieving, filtering, dissolving and evaporating. This will be carried out by working scientifically in the classroom.

- Define the term mixture and name some common examples.
- Define the term sieving and explain how sieving separates mixtures.
- Define the term filtering and explain how filtering separates mixtures.
- Define the terms solution and dissolve and name some common examples of solutions.
- Recall some factors that affect the time taken to dissolve.
- Describe the effect of temperature on the time taken to dissolve.
- Define the term evaporating and explain how evaporation separates solutions.
- Identify when sieving, filtering and evaporating should be used.

When working scientifically pupils who are secure will be able to:

- Research a mixture to find out what substances it is made from.
- Draw and annotate a diagram to explain how sieving separates a solid-solid mixture.
- Identify and justify which type of enquiry to use to answer my testable question.
- Identify solutions by observing and describing their appearance.
- Suggest which variables to change, measure and control when investigating how temperature affects the time taken to dissolve.
- Choose which measurements to take and how long to take them for.

KEY LANGUAGE AND VOCABULARY:

control variable (LKS2)

dissolve

filtering

insoluble

mixture

sieving

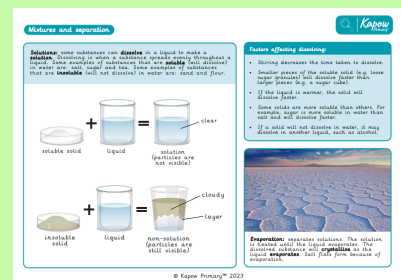
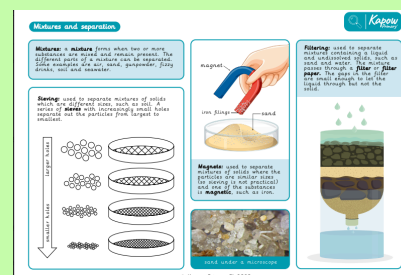
soluble

solution

stopwatch (LKS2)

variable (LKS2)

KNOWLEDGE AND FACT SHEET



KEY QUESTIONS:

1. What is a mixture?
2. What is sieving and how does it separate materials?
3. What is filtering and how does it separate materials?
4. What does the term solutions mean?
5. Can you explain dissolving?
6. Can you explain evaporation?

KEY SKILLS AND KNOWLEDGE

Knowledge

- Some substances will dissolve in a liquid to form a solution.
- The factors that affect the time taken to dissolve, including temperature and stirring.
- Some liquids and solids can be separated using sieving, filtering and evaporation and to describe these processes.

Skills Researching

- Gathering answers to open-ended questions from a variety of sources.

Recording (diagrams)

- Labelling with a broader range of scientific vocabulary. - Annotating diagrams to explain concepts and convey opinions. Posing questions - Selecting the most appropriate enquiry method to answer questions and give justification. Observing (qualitative data) - Using their senses to describe, in detail and with a broader range of scientific vocabulary, what they notice or what has changed. Planning - Suggesting which variables will be changed, measured and controlled. - Making and explaining decisions about what observations to make and how long to make them for.	
ENRICHMENT: • Children will be working on Scientific Investigations and working scientifically through the different terminologies. Visits: -	Previous Learning: The children have previously been exploring the Solar System and how Living Things reproduce. Future Learning: The children will be moving onto investigating properties of materials and how they might change.
School Drivers to Examine Children will look at: - Creativity and Innovation = how can changes in properties help us be creative and innovative?	