Working Scientifically Map

Lower key stage 2 programme of study Year 3

Working scientifically

Statutory requirements

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

Year Group: 3

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
TOPICS	Forces and Magnets	Light	Plants	Materials	Humans: Nutrition / Skeletons and Muscles	Butterflies
Types of Enquiry						
Observing (Changes) over time		✓ Shadows	✓ What would happen in a plant lost all of its leaves/roots?	✓ Ice, chocolate, evaporation		✓ Butterfly release

Seeking patterns and relationships	✓ How does it move? What could your magnet do?	✓ Mirrors			✓ Do the length of your legs affect how fast you can run?	
Identifying / grouping /classifying	✓ Which materials are magnetic?	✓ How easy it is to see?	✓ What do we know about leaves?	✓ Are they solid, liquid or gas?	✓ What do we need to survive?	✓ Types of butterfly
Comparative and fair testing	✓ How well can an object slide on different materials? What could your magnet do?	✓ Which is the shiniest?		✓ Are spaces really empty?	✓ Where did you feel it?	
Research - secondary sources		✓ Sun	✓ What would happen to a plant without leaves/roots?		✓ What would happen without calcium/fat/sugar etc?	✓ All about butterflies
SKILLS						
Asking questions	✓ How does it move? Which materials are magnetic?	✓	✓	✓	✓	
Observing / measuring	✓ How can we make it start to move?	✓ Can we see in the dark?	✓ Types of leaf	✓Ice hands	✓	✓
Planning / designing enquiries	✓ How well can an object slide on different materials?	✓ Can we see in the dark?	✓ What would happen to a plant without…?	✓ Ice hands		
Carrying out tests	✓ How well can an object slide on different materials?	✓ What can we see?	✓ What would happen to a plant without…?	✓ Ice hands	✓ Muscles	
Identifying/ grouping / classifying	✓ How can we make it start to move?	✓ Shiny/not shiny	✓ Types of leaf	✓ Solid/liquid/gas	✓ Food	✓ Types of butterflies
Gathering / recording data and info	✓ How well can an object slide on different	✓ Experiments	✓ All experiments	✓ All experiments		

	materials?					
Using equipment	✓ All experiments	✓ All experiments		✓All experiments		✓ Butterfly release
Reporting / communicating	✓ How can we make it start to move?	✓ All experiments	✓ All experiments		✓ Changes of state	
Evaluating Learning	True/False	True/False	KWL and labelled diagram	Picture prompt (melting ice) beginning and end	Labelled parts of the body	Picture prompt - life cycle - wings