







Science – Working Scientifically – Spring Term 1

Prior Knowledge

- Observing Change: Objects, materials, or living things can change over time, and we can measure or record these changes.
- Making Predictions: We can use what we know to predict what might happen in an experiment.
- Investigating Cause and Effect: We can test how changing one thing affects something else while keeping other things the same.
- Measuring and Recording: We use tools like rulers, timers, or thermometers to collect accurate data.
- Communicating Results: We can share our findings using drawings, tables, graphs, or presentations.
- Comparing and Reflecting: We can compare results and suggest improvements for future investigations.

Key Vocabulary

	investigation	A test or experiment to find out the answer to a scientific question.
	identify	To name or point out something you notice.
	evaluate	To think about how well something worked and what could be better.
	variable	Something you can change, keep the same, or measure in an investigation.
	analysis	Looking closely at results to see what they mean.
	test	Something you do to find out if an idea is true.

Core Knowledge

- Scientists ask questions about the world around them and make predictions about what might happen.
- A fair test is when you only change one thing at a time while keeping everything else the same.
- Observations and measurements help scientists collect accurate information about what happens.
- Data can be recorded in tables, charts, diagrams, or drawings to show results clearly.
- Looking for patterns in data helps scientists understand trends and differences between results.
- Evidence from investigations is used to draw conclusions and explain whether predictions were correct.
- Scientists communicate their findings to others using words, charts, graphs, diagrams, or presentations.
- Reflecting on an investigation helps scientists suggest ways it could be improved next time.

Diagrams



Asking questions
Asking questions that can be answered using a scientific enquiry.



Making predictions
Using prior knowledge to suggest what will happen in an enquiry.



Setting up tests
Deciding on the method and equipment to use to carry out an enquiry.



Observing and measuring
Using senses and measuring equipment to make observations about the enquiry.



Recording data
Using tables, drawings and other means to note observations and measurements.



Interpreting and communicating results
Using information from the data to say what you found out.



Evaluating
Reflecting on the success of the enquiry approach and identifying further questions for enquiry.

