

Year 5 Tracking and monitoring sheet for Science knowledge and working scientifically.



I can statements in topic areas
Properties and changes of materials
I know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.
I can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
I can demonstrate that dissolving, mixing and changes of state are reversible changes.
I can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.
Changes and reproduction + Life Cycles
I can describe the changes as humans develop to old age.
I can describe differences in the life cycles of a mammal, an amphibian, an insect and a bird.
I can describe the life process of reproduction in some plants and animals.
Forces in action
I can explain that unsupported objects fall towards the Earth because of Gravity
I can identify the effects of air resistance, water resistance and friction.
I can recognise some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.
I can use Newton meters to measure forces
I can create investigations using forces.
Earth and Space
I can describe the movement of Earth and other planets relative to the sun = A year.
I can describe the movement of the Moon relative to the Earth.
I can Describe the sun, Earth and Moon as approximately spherical bodies.
I can use the idea of the Earth's rotation to explain day and night and the apparent movement of sun across the sky
Seeing Light
I know that light travels in straight lines and use this to explain that objects are seen because they give out or reflect light into the eye.
I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

Working scientifically objectives

	I am beginning to explore ideas and ask my own questions about scientific phenomena.
	I am beginning to plan different types of scientific enquiry to answer questions.
	I am beginning to decide which variables to control.
	I can hypothesise using some scientific reasoning.
	I can set up simple practical enquiries: including comparative and fair tests.
	I can help decide which variables to keep the same and which to change.
	I can decide what to observe, how long for and whether to repeat them.
	I can take accurate and precise measurements inc using N, km/h, m/sec
	I can select equipment on my own and can explain how to use it accurately.
	I am beginning to use keys and other information records to classify and describe.
	I am beginning to identify changes related to scientific phenomena.
	I am beginning to collect data and results of increasing complexity: scientific diagrams including labels, classification keys, tables, bar charts, line graphs.
	I am beginning to choose how best to present data.
	I am beginning to communicate findings using detailed scientific language.
	I am beginning to draw scientific conclusions using the results of an enquiry to justify my ideas.
	I am beginning to explain my conclusion using scientific knowledge and understanding.
	I am beginning to use my findings to inform predictions and set up further enquiries
	I am beginning to say if my results are reliable.

Working towards	Working at Expected	Working at GD
Recommendations of how to support or develop these children	Recommendations of how to support or develop these children	Recommendations of how to support or develop these children

