



Year 5 Progressions of Skills - Science

2025/26	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Enrichment opportunities							
Science Unit	Materials - Properties and Changes	Materials - Mixtures and Separation	Forces and Space - Unbalanced Forces	Forces and Space - Earth and Space	Living Things - Life Cycles and Reproduction	Animals - Human Timeline Making Connections Unit	
Knowledge							
	Define the term mixture and name some common examples. Define the term sieving and explain how sieving	Determine the hardness of different materials and link this to their uses. Determine the transparency of different	Describe the geocentric and heliocentric models. Name and describe the shape of celestial bodies.	Describe gravity and its effects. Describe the relationship between mass and gravity. Describe air resistance and	Describe the life cycle of a plant, including the reproductive stage. Describe the life cycle of a mammal.	Order the stages in growth and development from birth to old age. Describe physical and developmental changes from a	



	<p>separates mixtures.</p> <p>Define the term filtering and explain how filtering separates mixtures.</p> <p>Define the terms solution and dissolve and name some common examples of solutions.</p> <p>Recall some factors that affect the time taken to dissolve.</p> <p>Describe the effect of</p>	<p>materials and link this to their uses.</p> <p>Determine the thermal and electrical conductivity of different materials and link this to their uses.</p> <p>Demonstrate, identify and describe reversible and irreversible changes.</p>	<p>Describe the orbits of celestial bodies in the Solar System and name the force that keeps them in their orbits.</p> <p>Describe the orbit of the Moon around the Earth and its phases.</p> <p>Explain how day and night occur.</p> <p>Explain how the seasons occur.</p> <p>Explain how a sundial works.</p> <p>List some of the uses of satellites and explain why space junk poses</p>	<p>its effects.</p> <p>Describe friction and its effects.</p> <p>Describe water resistance and its effects.</p> <p>Describe the relationship between surface area and air and water resistance.</p> <p>Explain how to make an object aerodynamic or streamlined.</p> <p>Describe the effects of levers, pulleys and simple machines on movement.</p>	<p>Describe the life cycle of a bird and compare it with that of a mammal.</p> <p>Describe the life cycle of an amphibian.</p> <p>Describe the life cycle of an insect and compare it with that of an amphibian.</p> <p>Describe asexual reproduction in plants.</p>	<p>baby through to old age.</p> <p>Describe changes that occur in males and females during puberty.</p> <p>Suggest ways to manage the changes that occur during puberty.</p> <p>Recall what is meant by a gestation period.</p> <p>Describe how gestation varies across animals and compare this to humans.</p>	
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	<p>temperature on the time taken to dissolve.</p> <p>Define the term evaporating and explain how evaporating separates solutions.</p> <p>Identify when sieving, filtering and evaporating should be used.</p>		a problem to them.				
Working scientifically							
	Research a mixture to find out what substances it is made from.	Evaluate the hardness test to determine the degree of trust in the results.	Pose and identify testable questions about the movement of the celestial	Analyse predictions, data and anomalies to write a conclusion.	Observe and compare equivalent parts in different flowers.	Use data to describe growth from baby to adult.	



	<p>Draw and annotate a diagram to explain how sieving separates a solid-solid mixture.</p> <p>Identify and justify which type of enquiry to use to answer my testable question.</p> <p>Identify solutions by observing and describing their appearance.</p> <p>Suggest which variables to change, measure</p>	<p>Plan and draw a table of results.</p> <p>Write a detailed, organised and easy to follow method.</p> <p>Write a prediction using prior knowledge of the states of matter.</p> <p>Analyse observations about rusting and use them to support a conclusion.</p>	<p>bodies in our Solar System.</p> <p>Use a model to represent the Solar System.</p> <p>Design and draw a table to record data on moons.</p> <p>Accurately draw day and night and seasons diagrams.</p> <p>Calibrate a sundial using a compass and torch and use it to measure time.</p>	<p>Plan a fair test to investigate air resistance.</p> <p>Write a method.</p> <p>Evaluate a method and judge the degree of trust.</p> <p>Design a results table.</p> <p>Calculate the mean average from repeat data.</p> <p>Draw and annotate a diagram.</p> <p>To draw an accurate line graph</p>	<p>Research the life cycles of different mammals.</p> <p>Pose questions to compare the life cycles of different birds.</p> <p>Suggest how one temperature may affect egg hatching.</p> <p>Use data to describe a relationship and make predictions.</p>	<p>Identify where on the graph the rate of growth changes.</p> <p>Use a line graph to make predictions about height.</p> <p>Choose a suitable title and axes labels for the scatter graph and plot data on the scatter graph.</p>	
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	<p>and control when investigating how temperature affects the time taken to dissolve.</p> <p>Choose which measurements to take and how long to take them for.</p>	<p>Measure accurately in centimetres.</p>	<p>Analyse patterns in temperature data for the Earth and use them to predict temperature values for the Earth in the future.</p>		<p>Represent root growth over time on a line graph.</p>		