

Skills and Knowledge Progression

Science: Year 3



Standard	Working at the expected standard (emerging, developing, secure)			Working at greater depth within the expected standard
Working Scientifically	Asking relevant questions and using different types of scientific enquiries to answer them.			Pupils can use and apply scientific knowledge and skills with increasing independence: <ol style="list-style-type: none"> 1. Recognise patterns that relate to scientific ideas. 2. Use evidence to produce a simple conclusion. 3. Use evidence to suggest further relevant investigations. 4. Develop relevant, testable questions. 5. Plan investigations using different types of scientific enquiry. 6. Set up comparative and fair tests. 7. Use various equipment, as instructed, repeatedly and with care. 8. Know the importance of using standard units and measure accurately. 9. Use words and diagrams to record findings. 10. Use various ways to record, group and display evidence. 11. Write a conclusion based on evidence.
	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.			
Plants	1. Name and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.			<ol style="list-style-type: none"> 1. Compare the requirements of different plants and link these to particular habitats. 2. Suggest how this process might vary from one type of plant to another. 3. Suggest why pollination, seed formation and seed dispersal may vary from one type of plant to another. 4. Explain why a varied diet is important.
	5. Know the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.			
	6. Investigate the way in which water is transported within plants.			
	7. Name the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.			
Animals, Including Humans	1. Know that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.			<ol style="list-style-type: none"> 1. Explain why a varied diet is important. 2. Compare the ways that the skeletons of different animals provide support, protection and movement.
	2. Know that humans and some other animals have skeletons and muscles for support, protection and movement.			
Rocks	1. Sort and group together different kinds of rocks on the basis of their appearance and simple physical properties.			<ol style="list-style-type: none"> 1. Explain how fossils are formed. 2. Describe how soil is made.
	4. Describe in simple terms how fossils are formed when things that have lived are trapped within rock.			

	5. Know that soils are made from rocks and organic matter.				3. Examine and test rocks, grouping them according to the results.
Light	1. Know that we need light in order to see things and that dark is the absence of light.				1. Know that vision involves light travelling to the eyes. 2. Know that some surfaces are better at reflecting light than others. 3. Explain why sunlight can be dangerous and how types of protection works. 4. Suggest how light is travelling to form a shadow.
	2. Know that light is reflected from surfaces.				
	3. Know that light from the sun can be dangerous and that there are ways to protect their eyes.				
	4. Recognise that shadows are formed when the light from a light source is blocked by a solid object.				
	5. Find patterns in the way that the size of shadows change.				
Forces and Magnets	1. Compare how things move on different surfaces.				1. Predict how an object will move on other surfaces and suggest why. 2. Explore how magnetic attraction and repulsion are affected by distance. 3. Explore whether some magnets are stronger than others. Identify some applications of magnets and magnetic materials. Apply ideas about the interaction of magnets to contexts such as toys. 5. Explore the similarities and differences between the two poles.
	6. Notice that some forces need contact between two objects, but magnetic forces can act at a distance.				
	7. Observe how magnets attract or repel each other and attract some materials and not others.				
	8. Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.				
	9. Describe magnets as having two poles.				
	10. Predict whether two magnets will attract or repel each other, depending on which poles are facing.				