

	Biology					
Big Idea	Programmes of study	Working towards expectations	Meeting expectations	Exceeding expectations		
Habitats provide living things with what they need	Explore 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.	The child can suggest how one of the requirements for plants to stay healthy could be explored.	The child can explain what all plants need to flourish and recognise how these requirements vary in amount.	The child can compare the requirements of different plants and link these to particular habitats.		
Life exis goe	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.	The child can identify different parts of a flowering plant: roots, stem/trunk, leaves and flowers.	The child can describe what each part of a flowering plant does.	The child can suggest why parts may vary in size and shape from one species of flowering plant to another.		
its in a varie s through cy	Investigate the way in which water is transported within plants.	The child can identify that water is transported within plants.	The child can explain, with the aid of a diagram or plant, how water is carried up from the soil.	The child can suggest how this process might vary from one type of plant to another.		
ty of forms and cles- Plants	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	The child can describe the processes of pollination, seed formation and seed dispersal.	The child can explain how pollination, seed formation and seed dispersal play a role in the reproduction of flowering plants.	The child can suggest why pollination, seed formation and seed dispersal may vary from one type of plant to another.		



Life exists in a variety of forms and goes through cycles - Animals	Identify 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.	The child can identify that animals, including humans, need the correct nutrition.	The child can describe why animals, including humans, depend on the correct nutrition.	The child can explain why a varied diet is important.
The human body has a number of systems, each with its own	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	The child can recognise that humans and some other animals have skeletons and muscles.	The child can explain which parts of the skeleton provide support and protection, and how they allow for movement.	The child can compare ways that the skeletons of different animals provide support, protection and movement.



Chemistry					
Big Idea	Programmes of study	Working towards expectations	Meeting expectations	Exceeding expectations	
Different rocks have different properties and the formation of soil and fossils can be explained.	Describe in simple terms how fossils are formed when things that have lived are trapped within rock.	The child understands that fossils indicate the shape of previous life forms.	The child can explain how fossils are formed.	The child can explain the importance of studying fossils.	
	Recognise that soils are made from rocks and organic matter.	The child can describe the appearance of soil, recognising that it is a mixture of materials.	The child can describe how soil is made.	The child can compare different soils in terms of composition.	
Materials have physical properties which can be investigated and compared	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	The child can identify that rocks vary in terms of appearance and physical properties.	The child can examine and test rocks, grouping then according to the results.	The child can suggest uses for different kinds of rocks based on their properties.	



	Physics						
Big Idea	Programmes of study	Working towards expectations	Meeting expectations	Exceeding expectations			
There are contact and non-contact for motion of objects.	Compare how things move on different surfaces.	The child can recognise that things may move differently on different surfaces.	The child can compare how an object, such as a toy car, will move on different surfaces.	The child can predict how an object will move on other surfaces and suggest why.			
	Notice that some forces need contact between two objects, but magnetic forces can act at a distance.	The child can recognise that magnetic forces don't require physical contact.	The child can recognise the different between contact and contact forces.	The child can explore how magnetic attraction and repulsion are affected by distance.			
	Observe how magnets attract or repel each other and attract some materials and not others.	The child can identify that magnets affect each other.	The child can describe how magnets attract or repel each other, and attract magnetic materials.	The child can explore whether some magnets are stronger than others.			
ces; these affec	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.	The child can recognise that some materials are magnetic and that others are not.	The child can group material on the basis of testing for being magnetic.	The child can identify some application of magnets and magnetic materials.			
ct the	Describe magnets as having two poles.	The child can recognise the term 'magnetic pole'.	The child can describe and identify the poles of a magnet.	The child can explore the similarities and differences between the two poles.			



Predict whether two magnets will attract or repel each other, depending on which poles are facing.	The child can recognise that magnets affect each other differently, depending on which poles are facing.	The child can predict outcomes of a particular arrangement of magnets.	The child can apply ideas about the interaction of magnets to contexts such as toys.

Light and ab	Recognise that they need light in order to see things and that dark is the absence of light.	The child can identify that light is necessary for vision.	The child can relate being able to see to the presences of light.	The child can recognise that vision involves light travelling to the eyes.
and sou sorbed a an	Notice that light is reflected from surfaces.	The child can identify that mirrors reflect light.	The child can describe how some objects reflect light.	The child can recognise that some surfaces are better at reflecting light than others.
nd can be refle and enable us 1d hear.	Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Recognise that shadows are formed when the light from a light source is blocked by a solid object.	The child can recognise that light from the sun can be dangerous. The child can recognise that light cannot pass through some objects.	The child can describe how and why our eyes should be protected from sunlight. The child can explain how shadows are made.	The child can explain why sunlight can be dangerous and how types of protection works. The child can suggest how light is travelling to form a shadow.
to see	Find patterns in the way that the size of the shadows change.	The child can identify that the size of shadows can be changed.	The child can describe how to change the size of a shadow.	The child can relate position of an object and position of a screen to the size of the shadow.



Working Scientifically						
Process	Sub- process	Programmes of study	Working towards expectations	Meeting expectations	Exceeding expectations	
Planning investigations	Children can ask questions	Ask relevant questions when prompted.	The child can ask simple questions that can be tested.	The child can, with support, develop relevant, testable questions, e.g. what happens to shadows when the light source moves.	The child can develop relevant, testable questions.	
	Children can plan an enquiry	Set up simple and practical enquiries, comparative and fair tests.	The child can suggest different ways of answering a question.	The child can plan enquiry, such as comparative or fair test, e.g. comparing the effect of different factors on plant growth.	The child can plan investigations using different types of scientific enquiry.	
	Children can use equipment to take measurements.	Set up comparative tests.	The child can, with support, set up a comparative test.	The child can set up a comparative test, e.g. how far things move on different surfaces.	The child can set up comparative and fair tests.	
Conducting experiments	Children can use equipment to take measures.	Make systematic observations, using simple equipment.	The child can use various equipment, with assistance, e.g. a thermometer.	The child can use various equipment, as instructed, e.g. using a hand lens to examine rocks.	The child can use various equipment, as instructed, repeatedly and with care.	
	Children can explore how to improve the quality of data.	Use standard units when taking measurements.	The child can recognise some standard measurements, e.g. cm.	The child can use standard measurements when taking measurements, e.g. measuring distances between a light source and object.	The child can recognise the importance of using standard unit and measure accurately.	



Record evider	Children record work with diagrams and label them.	Record finding in various ways.	The child can, with assistance, draw and label diagrams.	The child can, with prompting, draw and label diagrams, e.g. to show how water travels in a plant.	The child can use words and diagrams to record findings.
	Children can display data using labelled diagrams, keys, tables and bar charts	With prompting, suggest how findings may be tabulated.	The child can recognise the function of a table.	The child can, with prompting, use tables to record evidence, e.g. recording what happens when various rocks are rubbed together.	The child can use various ways to record evidence.
ce	Children can display data using line graphs.	With prompting, use various ways of recording, grouping and displaying evidence.	The child can recognise different ways of gathering and displaying evidence.	The child can, with prompting, gather and display evidence in various ways, e.g. about the ways that magnets behave in relation to each other.	The child can use various ways to record, group and display evidence.
Report f	Children process findings to develop conclusions and identify casual relationships.	With prompting, suggest conclusions from enquiries.	The child can, with prompting, suggest what enquiry shows.	The child can, with prompting, write a conclusion based on evidence, e.g. exploring the strengths of different magnets.	The child can write a conclusion based on evidence.
ndings	Children can use displays and presentations to report on findings.	Suggest how findings could be reported.	The child can, with support indicate findings from an enquiry that could be reported.	The child can indicate findings from an enquiry that could be reported, e.g. answering questions about how rocks are formed.	The child can present findings either in writing or orally.
Conclus predi	Children can analyse data.	Gather and record data to help answer questions.	The child can collect data.	The child can collect data relevant to the answering of questions, e.g. seeing how the shapes of some materials can be changed.	The child can recognise patterns that relate to scientific ideas, when prompted.
ons and ctions	Children can draw conclusions.	With prompting, suggest conclusions that can be drawn from data.	The child can answer enquiry questions using data and ideas.	The child can, with support, use evidence to produce a simple conclusion, e.g. the changes that occur when rocks are in water.	The child can use evidence to produce a simple conclusion.



Children can develop investigation further.	Suggest possible improvements or further questions to investigate.	The child can, with prompting, suggest how an investigation could be extended.	The child can suggest how an investigation could be extended, e.g. suggesting creative uses for different magnets.	The child can use evidence to suggest further relevant investigations.
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