

Science Whole School Progression of Skills

Subject Content		EYFS	Year 1	Year 2	Year 3
Plants	Working Scientifically	▪	▪ Observe the growth of flowers and vegetables that they have planted.	▪ Observe how different plants grow.	▪ Compare the effect of different factors on plant growth.
	Knowledge skills	▪	<ul style="list-style-type: none"> • identify and name a variety of common wild and garden plants, including deciduous and evergreen trees; • identify and describe the basic structure of a variety of common flowering plants, including trees. 	<ul style="list-style-type: none"> • observe and describe how seeds and bulbs grow into mature plants; • find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	<ul style="list-style-type: none"> • identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers; • 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; • investigate the way in which water is transported within plants; <div> <ul style="list-style-type: none"> • explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. </div>
	Notes and guidance	▪	<ul style="list-style-type: none"> ▪ Pupils explore their local environment throughout the year and ask questions about the plants growing. ▪ Name common flowers and plants including leaves and blossom. 	▪ Pupils know the term germination and how they grow and survive in different climates.	▪ Explore questions that focus on the role of the roots and stems in nutrition and support, leaves for nutrition and flowers for reproduction.

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Materials	Working Scientifically	▪	Perform simple tests on materials to see if they are waterproof/not waterproof to make the best hat for bear	<ul style="list-style-type: none"> ▪ Compare the uses of everyday materials in and around the school with materials found in different places ▪ Observing closely, identifying and classifying the uses of different materials and record their observations 	Observe rocks and explore how they change over time.
	Knowledge skills	▪	<p>Everyday Materials</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • distinguish between an object and the material from which it is made; • identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock; • describe the simple physical properties of a variety of everyday materials; • compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<p>Uses of Everyday Materials</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses; • find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 	<p>Rocks</p> <ul style="list-style-type: none"> • compare and group together different kinds of rocks on the basis of their appearance and simple physical properties; • describe in simple terms how fossils are formed when things that have lived are trapped within rock; • recognise that soils are made from rocks and organic matter.
	Notes and guidance	▪	Use the vocabulary hard/soft, stretchy/stiff, rough/smooth, waterproof/not waterproof, absorbant/not absorbant	Think about the properties of the materials and say why they are suitable/not suitable for certain objects.	

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Animals, including Humans	Working Scientifically	▪	<ul style="list-style-type: none"> ▪ Use observations to compare and contrast animals ▪ Describe how they group animals ▪ Group animals according to features 	<ul style="list-style-type: none"> ▪ Observe how different animals grow ▪ Ask questions about what animals need to survive ▪ Suggest ways to find answers to their questions 	<ul style="list-style-type: none"> ▪ Identifying and grouping animals with and without skeletons ▪ Observing and comparing their movement
	Knowledge skills	▪	<ul style="list-style-type: none"> • identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals; • identify and name a variety of common animals that are carnivores, herbivores and omnivores; • describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets); • identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 	<ul style="list-style-type: none"> • notice that animals, including humans, have offspring which grow into adults; • find out about and describe the basic needs of animals, including humans, for survival (water, food and air); • describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 	<ul style="list-style-type: none"> • 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; • identify that humans and some other animals have skeletons and muscles for support, protection and movement.
	Notes and guidance	▪	Explore the habitat around them for animals	Begin to understand the process of reproduction and growth in animals. Observe an animal cycle.	Identify main body parts linked to the skeleton.

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Living Things and Their Habitats	Working Scientifically			<ul style="list-style-type: none"> ▪ Sorting and classifying things according to whether they are alive, dead or never been alive ▪ Record findings on a chart ▪ Construct simple food chains ▪ Describe conditions of different habitats 	
	Knowledge skills			<ul style="list-style-type: none"> • explore and compare the differences between things that are living, dead, and things that have never been alive; • identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. • identify and name a variety of plants and animals in their habitats, including microhabitats; • describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. 	
	Notes and guidance			Compare animals in familiar habitats with those that are from less familiar habitats	

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Seasonal changes	Working Scientifically		<p>Make tables and charts about the weather</p> <p>Observe and talk about changes in the weather and seasons</p>		
	Knowledge skills		<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • observe changes across the 4 seasons; • observe and describe weather associated with the seasons and how day length varies. 		
	Notes and guidance		Children observe a tree/area of the school over the year.		