St Peter's Catholic Primary School

Progression of skills: Science

EYFS	

Reception	• Learn new vocabulary.
	• Ask questions to find out more and to check what has been said to them.
	• Articulate their ideas and thoughts in well-formed sentences.
	• Describe events in some detail.
	• Use talk to work out problems and organise thinking and activities. Explain how things work and why they might happen.
	• Use new vocabulary in different contexts.
	• Know and talk about the different factors that support their overall health and wellbeing:
	  • regular physical activity
	  • healthy eating
	  • toothbrushing
	  • sensible amounts of 'screen time'
	  • having a good sleep routine
	• being a safe pedestrian
	• Explore the natural world around them.
	• Describe what they see, hear and feel while they are outside.
	• Recognise some environments that are different to the one in which they live.
	• Understand the effect of changing seasons on the natural world around them.

ELGs	• Make comments about what they have heard and ask questions to clarify their understanding. • Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. • Explore the natural world around them, making observations and drawing pictures of animals and plants. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	**Animals including humans** asking simple questions and recognising that	**Materials** asking simple questions and recognising that	**Animals including humans** asking simple questions and recognising that		**Plants** asking simple questions and recognising that	**Seasonal changes** asking simple questions and recognising that they

	they can be answered in different ways identifying and classifying using their observations and ideas to suggest answers to questions identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	they can be answered in different ways performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions 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.	they can be answered in different ways identifying and classifying using their observations and ideas to suggest answers to questions describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) 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		they can be answered in different ways performing simple tests identifying and classifying using their observations and ideas to suggest answers to question identify and describe the basic structure of a variety of common flowering plants, including trees identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	can be answered in different ways identifying and classifying using their observations and ideas to suggest answers to questions record findings (e.g. tables/charts) about the weather contributing to displays about what happens in the world around them (e.g. day length as the seasons change) observe changes across the four seasons observe and describe weather associated with the seasons and how day length varies.
Year 2	**Animals including humans** asking simple questions and recognising that	**Animals including humans** asking simple questions and recognising that	**Plants** asking simple questions and recognising that	**Materials** asking simple questions and recognising that	**Living things and their habitats** asking simple questions and recognising that	**Living things and their habitats** asking simple questions and recognising that they

	they can be answered in different ways identifying and classifying using their observations and ideas to suggest answers to questions find out about and describe the basic needs of animals, including humans, for survival (water, food and air) notice that animals, including humans, have offspring which grow into adults	they can be answered in different ways identifying and classifying using their observations and ideas to suggest answers to questions describe the importance for humans to exercise, eating the right amounts of different types of food, and hygiene.	they can be answered in different ways performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions 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.	they can be answered in different ways performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions 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.	they can be answered in different ways identifying and classifying using their observations and ideas to suggest answers to questions 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	can be answered in different ways identifying and classifying using their observations and ideas to suggest answers to questions 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

Year 3		**Sound** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units. Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings. identify how sounds are made, associating some of them with something vibrating	**Rocks** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units. Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings. compare and group together different kinds of rocks on the basis of their appearance and	**Animals including humans** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units. Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings. Identify that animals, including humans, need the right types and	**Forces and magnets** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units. Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings compare how things move on different surfaces	**Growing** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units. Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers

		recognise that vibrations from sounds travel through a medium to the ear find patterns between the pitch of a sound and features of the object that produced it find patterns between the volume of a sound and the strength of the vibrations that produced it recognise that sounds get fainter as the distance from the sound source increases.	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	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.	notice that some forces need contact between two objects, but magnetic forces can act at a distance observe how magnets attract or repel each other and attract some materials and not others 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 describe magnets as having two poles predict whether two magnets will attract or repel each other, depending on which poles are facing.	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 explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
Year 4	**Animals including humans** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units.	**States of matter** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units.	**Electricity** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units.	.	**Living things and their habitats** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units.	**Light** asking relevant questions setting up simple practical tests making observations and, where appropriate, taking accurate measurements using standard units. Gathering, classifying, recording, using simple

	Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings. recognise that living things can be grouped in a variety of ways explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment recognise that environments can change and that this can sometimes pose dangers to living things	Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings. compare and group materials together, according to whether they are solids, liquids or gases observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings. identify common appliances that run on electricity construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery recognise that a switch opens and closes a circuit and associate this with whether or		Gathering, classifying, recording, using simple scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings. describe the simple functions of the basic parts of the digestive system in humans identify the different types of teeth in humans and their simple functions construct and interpret a variety of food chains, identifying producers, predators and prey.	scientific language, drawings, labelled diagrams, reporting findings and making conclusions and predictions, suggest improvements and raise further questions identifying differences, similarities or changes Answer questions or to support their findings. recognise that they need light in order to see things and that dark is the absence of light notice that light is reflected from surfaces 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 find patterns in the way that the size of shadows change

			not a lamp lights in a simple series circuit recognise some common conductors and insulators, and associate metals with being good conductors.			
Year 5		**Earth and Space** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and	**Properties and Materials** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and	**Forces** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in	**Living things and their habitats** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and	**Animals and their habitats** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms

		explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. describe the movement of the Earth, and other planets, relative to the Sun in the solar system describe the movement of the Moon relative to the Earth describe the Sun, Earth and Moon as approximately spherical bodies use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating give reasons, based on evidence from comparative and fair tests, for the particular	results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object identify the effects of air resistance, water resistance and friction, that act between moving surfaces recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird describe the life process of reproduction in some plants and animals.	such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. describe the changes as humans develop to old age.

			uses of everyday materials, including metals, wood and plastic demonstrate that dissolving, mixing and changes of state are reversible changes 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.			
Year 6	**Light** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels,	**Evolution and Inheritance** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity		**Electricity** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter	**Living things and their habitats** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification	**Animals including humans** planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

	classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. Recognise that light appears to travel in straight lines. Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye Explain that we see things because light travels from light sources to our eyes or	using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago Recognise that living things produce offspring of the same kind, but normally		graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.	keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals give reasons for classifying plants and animals based on specific characteristics.	using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments. describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals give reasons for classifying plants and animals based on specific characteristics.

	from light sources to objects and then to our eyes Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them	offspring vary and are not identical to their parents Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution		Use recognised symbols when representing a simple circuit in a diagram.		