Science progression of skills

We aspire for all at Parsonage Farm to feel valued and cared for, to have a continued excitement for learning, ensuring success as they journey onwards.

	Plants	Materials	Animals, including humans	Seasons	Living things	How things work
Nursery	Plant seeds and care for growing plants.	Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about the differences between materials and changes they notice.	Begin to understand the need to respect and care for the natural environment and all living things.	Talk about what they see, using a wide vocabulary.	Begin to understand the need to respect and care for the natural environment and all living things.	Explore how things work Explore and talk about the different forces they can feel.
Year R	Through real-life experiences, explore the different things plants need to grow.	Begin to explain how things are similar or different to each other using newly learnt scientific vocabulary.	Simply describe similarities and differences between animal groups and humans.	Describe what they see, hear and feel whilst outside. Understand the effect of changing seasons on the natural world around them.	Explore the natural world around them. Show care for the natural world when out and about. Recognise some environments that are different to the one in which they live.	Understand some basic changing states of matter e.g. through cooking.
Year 1	Identify a variety of common plants, including garden plants, wild plants and trees,	Distinguish between an object and the material from which it is made.	Identify a variety of common animals including fish, amphibians, reptiles, birds and mammals.	Observe changes across the four seasons Observe and describe weather associated with		

	and those classified as deciduous and evergreen Identify the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.	Identify a variety of everyday materials, including wood, plastic, glass, metal, water and rock. Describe the simple physical properties of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties.	Identify 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, mammals, including pets). Identify, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	the seasons and how day length varies.		
Year 2	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.	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.	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.		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 a variety of plants and animals in	

					their habitats, including micro-habitats. 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.	

KS1 Working Scientifically:

• Asking simple questions and recognising that they can be answered in different ways
• Observing closely, using simple equipment
• 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.

	Questioning	Testing	Observing	Gathering and Recording Data	Identifying and Classifying	Suggesting answers to question
Nursery	Adult support modelling questions such as 'I wonder if...'.	Adult supporting of simple tests that show concept of change.	Explore materials with different properties. Explore natural materials, indoors and outdoors. Explore and respond to natural phenomena.	Explore what children notice through hands on experiences and discuss their findings with support from an adult.	Notice differences between materials, plants and animals.	To talk about the differences and changes that they notice.
Year R	To explore the natural world around them and ask questions.	To experience different ways of finding out To make a suggestion about what to do. To experiment with appropriate apparatus. Carry out a chosen task. To make a simple statement referring to something they have already encountered.	Describe what they see, hear and feel whilst outside.	To observe changes in things around them. To know that information can be gathered from books and the internet.	To identify what is the same and what is different. To describe or show what they did and what happened.	To talk about what happened. To listen to the teacher using scientific vocabulary.
Year 1	To explore the world around them and ask questions using sentence stems such as how and why with support.	To begin to recognise questions can be answered in different ways. To make suggestions about what to do and what to look for. Carry out simple tests supported/scaffolded by adults.	With help, to observe closely using simple equipment. To observe changes over time with adult modelling.	To talk about results in everyday terms (e.g. this one is bigger). With support, to use simple equipment to gather data. With support, to answer questions by using secondary sources of information.	To make simple comparisons and groupings that relate to differences and similarities between objects, materials and living things. To draw or simply state what happened. To begin to group and classify.	To say what their observations show. Draw simple conclusions and explain what they did. To begin to use simple scientific vocabulary with prompting from the teacher.

		To predict what might happen.		To record results through drawing and or a simple table prepared by the teacher. To draw on a pictogram or other chart prepared by the teacher and create class bar charts.		
Year 2	To explore the world around them and raise their own questions using scientific language.	To respond to suggestions about how to find out and communicate this to others. To recognise the different ways in which they might answer scientific questions. To plan simply what to do, what observations or measurements to take. Recognise some hazards. To sometimes predict the outcome of an investigation.	To observe closely using simple equipment. Observe changes over time.	To measure using standard units. To learn how to use simple equipment (e.g. hand lenses, egg timer) to gather data. To use secondary sources of information to answer questions. To present results in a simple table with headings initially provided by the teacher. To use pictograms to display results, draw bar charts with help.	To use simple features to compare objects, materials and living things and decide how to sort and group them. To compare results, look for similarities and differences. With guidance, begin to notice patterns and relationships. To group and classify in different ways	To use their observations and ideas to suggest answers to questions. Talk about what they have found out and how they found it out. To use scientific vocabulary competently and appropriately.