



Science - Golden Threads

As Scientists, we work scientifically by using our golden threads...

Asking questions

Making observations and taking measurements

Performing tests

Identifying and classifying

Answering questions and drawing conclusions

Gathering and recording data

Using evidence

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
The Nest	EYFS Birth - 3	Understand simple questions about 'who', 'what' and 'where'. CL Identify familiar objects and properties for practitioners when they are described. CL Explore materials with different properties. UW Explore natural materials, indoors and outside. UW Explore and respond to different natural phenomena in their setting and on trips. UW				
	EYFS Birth 3-4	Understand 'why' questions like: "Why do you think the caterpillar got so fat?" CL Make healthy choices about food, drink, activity and tooth brushing. PSED Use all their senses in hands-on exploration of natural materials. UW Explore collections of materials with similar and/or different properties. UW Talk about what they see, using a wide vocabulary. UW Talk about the differences between materials and changes they notice. UW Plant seeds and care for growing plants. UW Understand the key features of the life cycle of a plant and animal. UW Begin to understand the need to respect and care for the natural environment and all living things. UW Begin to make sense of their own life-story and family's history. UW				

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Lower Robins	EYFS R	Learn new vocabulary. CL Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. CL Use new vocabulary in different contexts. CL Explore the natural world around them. UW Understand the effect of changing seasons on the natural world around them. UW Describe what they see, hear and feel when they are outside. UW Recognise some environments that are different to the one in which they live. UW Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. CL Know and talk about the different factors that support their overall health and well-being: • Regular physical activity • Healthy eating • Tooth brushing • Sensible amounts of 'screen time' • Having a good sleep routine • Being a safe pedestrian PSED Explore the natural world around them. UW				
	EYFS ELG	Make comments about what they have heard and ask questions to clarify their understanding. CL Manage their own basic hygiene/personal needs, including dressing, going to the toilet and understanding the importance of health choices. PSED Understand some important processes and changes in the natural world around them , including the season changes and states of matter. UW 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. UW Explore the natural world around them, making observations and drawing pictures of animals and plants. UW				

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Upper Robins Y1/2	A	Animals including humans (Y1) – Naming and Grouping Animals Identify and classify animals including humans.	Uses of everyday materials (Y2) Identify and classify the use of everyday materials	Scientists and Inventors (Y2) Identifying and understanding scientific discoveries and evidence that has impacted the world.	Living Things and their habitats - (Y2) Ask questions about things which are dead and alive. Identify and classify a range of plants and animals.	Plants (Y1) Observing plants using simple equipment. Identify common plants.	Nature Protectors (Y1) Identify and classify animals including humans.
	B	Seasonal changes – Autumn / Winter (Y1) Observing changes in weather. Gather and record data on temperature and rainfall in Winter.	Everyday materials (Y1) Perform simple tests in designing an item for a particular need.	Animals Including Humans (Y2) Ask and answer questions about the needs of humans. Identify and classify food groups. Perform simple tests around healthy living.	Seasonal changes – Spring / Summer Observing changes in weather. Gather and record data on rainfall and sunshine hours	Plants (Y2) Investigate what plants need to grow well, observing and recording plant growth. Use this to draw conclusions.	Biodiversity: Minibeasts (Y2) Identify and classify microorganisms. Investigate what creatures need to grow well, observing creatures in their habitats.
		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Kingfishers Y3/4	A	States of matter (Y4) Carry out a range of tests linked to states of matter,	Sound (Y4) Explore how vibrations from sound travel and use this to draw conclusions.	Living things and their habitats (Y4) Identify and classify vertebrates and invertebrates.	Animals including humans (Y4) Gathering, recording, classifying and presenting data in a variety of ways	Plants (Y3) Investigate what plants need to grow well, observing and recording plant growth.	Biodiversity Birds (Y3) Identify and classify different birds and their needs. identifying scientific evidence on human

		focusing on fair testing. Record data in tables and graphs.		Showing data and results in different ways: tables and classification keys.	to help in answering questions about food and nutrition and the human skeleton.	Use this to draw conclusions.	impact on food chains.
	B	Rocks and Soils – (Y3) Make systematic and careful observations of different types of rock. Use this information to identify and classify rocks.	Simple Electric Circuits – (Y4) Carry out a range of investigations in to switches, conductors and insulators. Use results to draw simple conclusions when exploring circuits.	Simple Forces and Magnets (Y3) Make observations about how magnets behave.	Intro to light and shadows – (Y3) Carry out fair tests linked to reflection and whether objects are transparent, translucent or opaque. Use this evidence to draw conclusions on how lights reflects and how shadows are formed.	Human Skeleton – (Y3) Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions about food and nutrition and the human skeleton.	Reduce, Reuse, Recycle (Y4) Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions about pollution, recycling and reducing our impact on climate change.
		Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Hérons Y5/6	A	Properties and changes of materials (Y5) Compare and group objects and materials based on their properties. Carry out investigations with reversible and irreversible changes.	Light (Y6) Draw conclusions about how we see, how light is refracted and how we use a spectrum of colours.	Living things and their habitats (Y6) Identify and classify microorganisms.	Evolution and Inheritance (Y6) Identifying scientific evidence that has been used to support or refute ideas or arguments linked to evolution.	Animals including humans (Y5) Identify and classify stages of human life cycle and gestation periods in other animals.	Scientists and Inventors (Y6) Identifying and understanding scientific discoveries and evidence that has impacted the world.

	B	Animals Including Humans – (Y6) Focused enquiry: exercise. Explore evidence based on the impact of drugs and alcohol.	Electricity (Y6) Make observations about changing circuits. Carry out a thorough investigation into variations in circuits, gathering and recording data, and using this to draw conclusions.	Forces (Y5) Identify examples of forces in action. Draw conclusions about forces based on investigations and data collected.	Earth and Space (Y5) Use scientific evidence to discuss movement within the Solar System.	Living things and their habitats (Y5) Record data linked to the human life cycle.	Changing Oceans (Y5) Identifying scientific evidence that has been used to identify the impact of humans on the oceans and ways to protect and sustain ocean habitats.