

Science Long Term Planning Two-year Rolling Programme

Year A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Skylark Years 1 and 2	<p>Animals inc humans</p> <ul style="list-style-type: none"> 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. <p><u>Enquiry Question</u> Am I a predator?</p>	<p>Living Things & their Habitats (Y2)</p> <ul style="list-style-type: none"> Explore & compare diffs b/t things that are living/dead/things that have never been alive. Notice that animals, including humans, have offspring which grow into adults. Find out about & describe basic needs of animals, inc humans, for survival. <p><u>Enquiry Question</u> Why is a rock not alive?</p>	<p>Seasonal Changes (Y1)</p> <ul style="list-style-type: none"> Observe changes across the four seasons. Observe/ describe weather associated with the seasons and how day length varies <p>Just for this year - Animals inc humans Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.</p> <p><u>Enquiry Question</u> What makes a healthy me?</p>	<p>Plants (Y1)</p> <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. <p><u>Enquiry Question</u> Can you grow a plant anywhere?</p>	<p>Animals inc humans</p> <ul style="list-style-type: none"> Identify & name plants/animal in their habitats & micro habitats. 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. <p><u>Enquiry Question</u> Could a polar bear live in Longney?</p>	<p>Materials</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. <p><u>Enquiry Question:</u> Why don't bridges fall down?</p> <ul style="list-style-type: none"> Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. <p><u>Enquiry Question:</u> Can we shape glass?</p>
Goldfinch Years 3 and 4	<p>Animals inc humans (Y3)</p> <ul style="list-style-type: none"> Identify humans and some other animals have skeletons & muscles for support, protection/ movement. Construct and interpret a variety of food chains, identifying producers, predators and prey. <p><u>Enquiry Question:</u> How and why does a lion chase its prey?</p>	<p>Animals inc humans (yr 3)</p> <ul style="list-style-type: none"> 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. 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. <p><u>Enquiry Question:</u> Where does my food go?</p>	<p>Electricity (Y4)</p> <ul style="list-style-type: none"> 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 not a lamp lights in a simple series circuit recognise some common conductors and insulators, and associate metals with being good conductors <p><u>Enquiry Question:</u> Is the sun plugged in?</p>	<p>States of Matter (Y4)</p> <ul style="list-style-type: none"> 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) <p><u>Enquiry Question:</u> Can I make ice disappear?</p>	<p>Sound (Y4)</p> <ul style="list-style-type: none"> identify how sounds are made, associating some of them with something vibrating 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 <p><u>Enquiry Question:</u> How do we hear?</p>	<p>Plants</p> <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. identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Look at how water is transported within plants. <p><u>Enquiry Question:</u> Why do we need bees?</p>

Science Long Term Planning Two-year Rolling Programme

<p>Swift Years 5 and 6</p>	<p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> 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. <p><u>Enquiry Question:</u> What does a Kangaroo have to do with a stomach bug?</p>	<p>Light</p> <ul style="list-style-type: none"> 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 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. <p><u>Enquiry Question:</u> Can we bend the sun's rays?</p>	<p>Electricity</p> <ul style="list-style-type: none"> 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. Use recognised symbols when representing a simple circuit in a diagram. Compare and group together everyday material on the basis of their conductivity (electrical and thermal). <p><u>Enquiry Question:</u> What is electricity?</p>	<p>Evolution and Inheritance</p> <ul style="list-style-type: none"> 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 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 <p><u>Enquiry Question:</u> Why do giraffes have a long neck?</p>	<p>Animals Including Humans</p> <ul style="list-style-type: none"> Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood. Describe the ways in which nutrients and water are transported within animals including humans <p><u>Enquiry Question:</u> Why does your heart beat change?</p>	<p>Animals Including Humans</p> <ul style="list-style-type: none"> Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. <p><u>Enquiry Question:</u> What am I like on the inside?</p>
--------------------------------	---	---	--	---	--	--

Science Long Term Planning Two-year Rolling Programme

Year B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Skylark Years 1 and 2	<p>Materials</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. Describe physical properties of everyday materials. Compare/group together materials on the basis of physical properties. <p><u>Enquiry Question:</u> Why is a rock a rock?</p>	<p>Animals including humans</p> <ul style="list-style-type: none"> Describe the importance for humans of hygiene. <p><u>Enquiry Question:</u> How does my body heal?</p>	<p>Animals inc humans</p> <ul style="list-style-type: none"> Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Describe the importance for humans of exercise, eating the right amounts of different types of food. <p><u>Enquiry Question:</u> What makes a healthy me?</p>	<p>Animals inc humans</p> <ul style="list-style-type: none"> Identify & name variety of common animals inc fish, amphibians, reptiles, birds and mammals. Describe and compare the structure of a variety of common animals. Identify & name a variety of common animals that are carnivores, herbivores and omnivores. <p><u>Enquiry Question:</u> Are all animals the same?</p>	<p>Plants</p> <ul style="list-style-type: none"> Identify & name a variety of common plants, including deciduous and evergreen trees. Identify & describe the structure of common flowering plants, including trees. <p><u>Enquiry Question:</u> What is growing in Longney?</p>	<p>Materials</p> <p><u>Enquiry Question:</u> How do we recycle?</p>
Goldfinch Years 3 and 4	<p>Rocks (Y3)</p> <ul style="list-style-type: none"> Comparing & grouping rocks & soils. Describe how fossils are formed. Recognise that soils are made from rocks & organic matter. <p><u>Enquiry Question:</u> Can rocks change?</p>	<p>Light (Y3)</p> <ul style="list-style-type: none"> Recognise dark is absence of light/ notice light is reflected/ Danger of sun/ how shadows are formed/ Patterns in the way that size of shadows change. <p><u>Enquiry Question:</u> How do cats eyes keep me safe?</p>	<p>Forces & magnets (Y3)</p> <p>Compare how things move/notice some forces need contact (but not magnets/ observe how magnets repel & attract/ compare & group materials based on magnetism/ recognise magnets have 2 poles/ predictions</p> <p><u>Enquiry Question:</u> Does everything I touch really move?</p>	<p>Animals inc Humans</p> <ul style="list-style-type: none"> Compare how things move on different surfaces. <p><u>Enquiry Question:</u> Which surface is the best for speed?</p>	<p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> 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. <p><u>Enquiry Question:</u> Why can't pigs fly?</p>	<p>Everyday Materials</p> <ul style="list-style-type: none"> identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature <p><u>Enquiry Question:</u> So where did the ice really go?</p>

**Science Long Term Planning
 Two-year Rolling Programme**

<p>Swift Years 5 and 6</p>	<p>Earth and Space</p> <ul style="list-style-type: none"> 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 objects. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. <p><u>Enquiry Question:</u> Why is it night-time in Australia and day-time here?</p>	<p>Materials</p> <ul style="list-style-type: none"> Compare and group together everyday materials on the basis of their properties including their hardness, transparency and response to magnets. Give reasons based on evidence from comparative and fair tests, for the particular use of everyday materials, including metals, wood and plastic. <p><u>Enquiry Question:</u> Which material would make the best ???</p>	<p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the process of reproduction in some plants and animals. <p>Animals inc Humans</p> <ul style="list-style-type: none"> Describe the changes as humans develop to old age. <p><u>Enquiry Question</u> Do all living things lay eggs?</p>	<p>Properties of Materials</p> <ul style="list-style-type: none"> Know that some materials will dissolve in liquids 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. Demonstrate that dissolving, mixing and changes of state are reversible changes. Compare and group together everyday materials on the basis of their properties including their solubility. Know that some materials will dissolve in liquids 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. Demonstrate that dissolving, mixing and changes of state are reversible changes. Compare and group together everyday materials on the basis of their properties including their solubility. <p><u>Enquiry Question:</u> Can I get salt out of the sea?</p>	<p>Forces</p> <ul style="list-style-type: none"> 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, friction and water resistance that act between moving surfaces. <p><u>Enquiry Question:</u> Why did Neil Armstrong not fall off the moon?</p>	<p>Changes of Materials</p> <ul style="list-style-type: none"> 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. <p><u>Enquiry Question:</u> Can I turn my toast back to bread?</p>
---	--	---	--	---	---	---