



Oaklands Primary School Science Long Term Curriculum Plan

		Autumn	Spring	Summer	
EYFS	<p>Animals including humans What animals live on a farm? What are minibeasts? Hibernation: How do bears keep warm?</p> <p>Everyday Materials Materials: What are the best materials for a boat?</p>		<p>Investigations What happens if a biscuit goes in water? Measuring porridge temperatures Planting a bean Bread experiment: What happens to it over time? Exploring chocolate stages of state</p> <p>Everyday materials Exploring materials, testing the best uses for a duvet. Exploring materials, testing the best uses for a house.</p> <p>Living things and their habitats Labelling the parts of a plant The life cycle of a butterfly Animals and their habitats</p>	<p>Investigations Sorting different vehicles and observing how many cars pass our school during a given time (gathering and recording data) Make ice lollies and ice cubes in water tray (changes of states of matter)</p> <p>Everyday Materials Explore floating and sinking</p>	
	Key Stage 1	Year 1	<p>Animals including humans - identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p> <p>Seasonal changes - observe changes across the four seasons - observe and describe weather associated with the seasons and how day length varies.</p>	<p>Everyday materials - 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>	<p>Animals including humans - 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)</p> <p>Plants - 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</p>
		Year 2	<p>Living things and their habitats - 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.</p>	<p>Uses of everyday materials - 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>	<p>Animals including humans - 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.</p> <p>Plants - 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>



Oaklands Primary School Science Long Term Curriculum Plan

		Autumn 1	Spring 1	Summer 1
		Lower Key Stage 2	Year 3	<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.
Year 4	<p>Electricity</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>Animals including humans</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 - construct and interpret a variety of food chains, identifying producers, predators and prey. 		<p>Sound</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>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 - recognise that environments can change and that this can sometimes pose dangers to living things. <p>States of matter</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) - identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.



Oaklands Primary School Science Long Term Curriculum Plan

		Autumn	Spring	Summer
		Upper Key Stage 2	Year 5	<p>Properties and changes of materials</p> <ul style="list-style-type: none"> - 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 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	<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>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>Animal 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 - recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function - describe the ways in which nutrients and water are transported within animals, including humans. <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. 	<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.