

Christ the Sower Ecumenical Primary School Science Curriculum Overview

Year 1

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Science	<p>Me and my Body (Healthy Eating)</p> <p>Health, differences, keeping fit, eating healthily</p> <p>Name the parts of the human body that we can see</p> <p>Link the correct parts of the human body to each sense</p>	<p>Everyday materials</p> <p>Identify toys/objects and what they are made from</p> <p>Know the difference between materials eg. Wood, plastic, glass, metal, rock</p> <p>Properties of everyday materials</p> <p>Grouping and sorting materials</p>	<p>Weather</p> <p>Identify hot and cold places</p> <p>Observe and know about the changes in the seasons</p> <p>Name the seasons and know about the type of weather in each season</p>	<p>Animals including humans</p> <p>Know the names of a variety of animals including fish, amphibians, reptiles, birds and mammals</p> <p>Classify animals by what they eat</p> <p>Sort animals into categories</p> <p>Sort living and non-living things</p>	<p>Plants</p> <p>Know and name a variety of local and exotic plants</p> <p>Name parts of a plant</p> <p>Know the difference between fruit and vegetables</p> <p>Identify some fruit and vegetables that grow in hot and cold countries</p> <p>Plant tomatoes</p>	<p>Planets</p> <p>Identify up to 5 different planets</p> <p>Know we live on earth and know what the sun and moon are and how they give us day and night</p>

Science	<p>Materials</p> <p>Identify properties of material and uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard</p> <p>Working Scientifically - Investigating materials, carrying out simple tests</p> <p>Everyday day materials uses of materials Identify materials in buildings Know why a material might be used for a specific job – eg to keep me warm Know how to bend and shape materials and how they change</p> <p>Know how some materials change shape by squashing, bending, twisting and stretching</p>	<p>Healthy Humans</p> <p>Health – balanced diet, the benefits of exercise and hygiene</p>	<p>Living things and their habitats</p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>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> <p>Identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>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>Animals including humans</p> <p>(African wildlife) Name plants and animals that are specific to Africa Match living things to their habitat e.g. forest, grasslands/desert Animal life cycles (Penguins & Chimps)</p> <p>Notice that animals, including humans, have offspring which grow into adults</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p>	<p>Plants</p> <p>Observe and describe how seeds and bulbs grow into mature plants</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p>
---------	--	--	---	---	--

Science	<p>Rocks and soils</p> <p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>Recognise that soils are made from rocks and organic matter.</p>	<p>Forces and Magnets</p> <p>Compare how things move on different surfaces</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance</p> <p>Observe how magnets attract or repel each other and attract some materials and not others</p> <p>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</p> <p>Describe magnets as having two poles</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p>	<p>Animals including humans</p> <p>(Healthy eating)</p> <p>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> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p>	<p>Light and dark</p> <p>Recognise that they need light in order to see things and that dark is the absence of light</p> <p>Notice that light is reflected from surfaces</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>Recognise that shadows are formed when the light from a light source is blocked by an opaque object</p> <p>Find patterns in the way that the size of shadows change</p>	<p>Plants</p> <p>The functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</p> <p>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</p> <p>Investigate the way in which water is transported within plants</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>
---------	---	--	---	--	--

Science	<p>Animals including humans Mouths</p> <p>Construct and interpret a variety of food chains, identifying producers, predators and prey</p> <p>Describe the simple functions of the basic parts of the digestive system in humans</p> <p>Identify the different types of teeth in humans and their simple functions</p>	<p>Electricity</p> <p><i>Identify common appliances that run on electricity.</i></p> <p><i>Construct a simple series electrical circuit.</i></p> <p>Identify common appliances that run on electricity.</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>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.</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p>	<p>States of matter</p> <p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>Observe that some materials change state when they are heated or cooled, and measure the temperature at which this happens in degrees Celsius (°C), building on their teaching in mathematics.</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p>Living things and their habitats</p> <p>Can learning about classifying living things helped us to appreciate our differences?</p> <p>Recognise that living things can be grouped in a variety of ways</p> <p>Explore and use classification keys to help group, identify and names a variety of living things in their local & wider environment</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things</p>	<p>Sound</p> <p>Identify how sounds are made, associating some of them with something vibrating</p> <p>Recognise that vibrations from sounds travel through a medium to the ear</p> <p>Find patterns between the pitch of a sound and features of the object that produced it</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it</p> <p>Recognise that sounds get fainter as the distance from the sound source increases</p>
---------	---	---	--	---	--

Science	<p>Forces</p> <p>Understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.</p> <p>Understand that some mechanisms including levers, pulleys and gears, allow a smaller force to have a greater effect.</p> <p>Explain that unsupported objects fall towards the earth because of gravity</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p>	<p>Animals including humans</p> <p>Lifestyle and our body</p> <p>Recognise the importance of diet, exercise, drugs and lifestyle on the way the human body functions.</p> <p>Describe the changes as humans develop to old age</p>	<p>Properties and changes of materials</p> <p>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</p> <p>Understand that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporation.</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, woods and plastic.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>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, oxidation and the action of acid on bicarbonate of soda.</p>	<p>Earth and Space</p> <p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</p> <p>Describe the movement of the Moon relative to the Earth.</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies.</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p>	<p>Living things and their habitats</p> <p>Plants (including lifecycle)</p> <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>Investigate the way in which water is transported within plants.</p> <p>Explore the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> <p>Describe the life process of reproduction in some plants and animals.</p> <p>Observe and compare the life cycles of plants and animals in their local environment with other plants and animals around the world</p> <p>Learn about naturalists (e.g David Attenborough)</p>
---------	---	--	---	---	---

<p>Science</p>	<p>Light</p> <p>To understand light and seeing.</p> <p>Understand that light appears to travel in straight lines.</p> <p>Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eyes.</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them, and to predict the size of the shadows when the position of the light source changes.</p> <p>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</p> <p>To understand electrical circuits</p> <p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>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.</p> <p>Use recognised symbols when representing a simple circuit in a diagram.</p>	<p>Living things and their habitats</p> <p>(Classification)</p> <p>Know that living things can be grouped in a variety of ways.</p> <p>Know how Linnaean system of classification works.</p> <p>Know how to identify the characteristics of different types of animals.</p> <p>Know how to identify the features of class carefully</p>	<p>Evolution and inheritance</p> <p>(Physical Changes)</p> <p>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	<p>Animals including humans</p> <p>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans</p>	<p>Electricity</p> <p>Know the number of voltage of cells in a circuit links to the brightness of a lamp or a volume of a buzzer</p> <p>Compare and give reasons why components work and do not work in a circuit</p> <p>Draw circuit diagrams using correct symbols</p> <p>Make a buggy move using electricity.</p>
----------------	---	---	--	---	---