



Sacred Heart RC Primary School

Where Every Heart is Sacred

Subject: Science

| | Autumn 1 Family & Community | Autumn 2 Dignity of the Human Person | Spring 1 Dignity of Work | Spring 2 Option for the Poor and Vulnerable | Summer 1 Stewardship | Summer 2 Rights and Responsibilities |
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| Nursery | Exploring materials | Senses/Autumn/ Colour mixing | People who help us (doctors/nurses) | Growth and decay/ plants in the garden/ sunflowers | Caring and sharing in God's World/ Looking after God's world | Movement and forces/ Melting and freezing |
| Reception | Staying healthy / Food / Human body How have I changed? My Family | Seasons (Autumn) Light/dark Winter time | Animal patterns Animals | Plants & Flowers Life cycles – chicks Mini beasts Planting seeds Reduce, Reuse & Recycle Materials | Our homes Directions | Looking after our world/local area Recycling and reusing |
| KS1 B (Class 1, 2 & 3) | <p>Class 1 - Everyday materials Class 2 – Food and farming Class 3 - Everyday Materials (Y1)</p> <p>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</p> | <p>Class 1 - Animals including Humans Class 2- Everyday materials Class 3-Animals including Humans (Y1)</p> <p>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,</p> | <p>Class 1 - Plants Class 2 - Animals including humans Class 3 - Starting plants (Y1)</p> <p>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> | <p>Plants Class 2 - To do just 6 lessons of plants (Y2)</p> <p>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> | <p>Seasonal changes (Y1)</p> <p>Observe changes across the 4 seasons. Observe and describe weather associated with the seasons and how day length varies.</p> | <p>Living things and their habitats (Y2)</p> <p>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,</p> |

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| | together a variety of everyday materials on the basis of their simple physical properties. | reptiles, birds and mammals including pets). Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense | | | | 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. |
| LKS2 B (Class 4, 5 & 6) | <p>Class 4 – Animals including humans Class 5 – Animals including humans Class 6 - Animals including humans (Y3)</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>Class 4 –Rocks Class 5 – Rocks Class 6 - Rocks (Y3)</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>Class 4 – Forces nd magnets Class 5 – Forces and magnets Class 6 - Forces and magnets (Y3)</p> <p>Compare how things move on different surfaces.</p> <p>Notice that some forces need contact between 2 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 2 poles.</p> <p>Predict whether 2 magnets will attract or repel each other, depending on which poles are facing.</p> | <p>Plants (Y3)</p> <p>Identify and describe 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> | <p>Living things and their habitats (Y4)</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 name a variety of living things in their local and wider environment.</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p> | <p>States of matter (Y4)</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 or research the temperature at which this happens in degrees Celsius (°C).</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p> |
| UKS2 B (Class 7, 8 & 9) | <p>Class 7 – Properties and changes of materials Class 8 – Properties and</p> | <p>Class 7 – Forces (Most lessons) Class 8 – Forces</p> | <p>Class 7 – Earth and space Class 8 – Earth and</p> | <p>All - Living things and their habitats (Y5)</p> <p>Describe the differences</p> | <p>Light (Y6)</p> <p>Recognise that light appears to travel in</p> | <p>Electricity (Y6)</p> <p>Associate the brightness of a lamp or</p> |

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| | <p>changes of materials Class 9 - Properties and changes of materials (Y5)</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. 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</p> | <p>Class 9 – Forces (Y5)</p> <p>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, water resistance and friction, that act between moving surfaces. Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.</p> | <p>space Class 9 – Earth and space (Y5)</p> <p>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 bodies. 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>in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals.</p> | <p>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> | <p>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> |
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| | associated with burning and the action of acid on bicarbonate of soda. | | | | | |
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LKS2 – Light in science week (Y3)

Recognise that they need light in order to see things and that dark is the absence of light.

Notice that light is reflected from surfaces.

Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.

Recognise that shadows are formed when the light from a light source is blocked by an opaque object.

Find patterns in the way that the size of shadows change.