

Downsview Primary School – Curriculum Overview, NC Links

Autumn

Spring

Summer

Year 1

WSc1.1 asking simple questions and recognising that they can be answered in different ways  
 WSc1.2 observing closely, using simple equipment  
 WSc1.3 performing simple tests  
 WSc1.4 identifying and classifying  
 WSc1.5 using their observations and ideas to suggest answers to questions  
 WSc1.6 gathering and recording data to help in answering questions

**Everyday Materials**

Sc1/1.3a distinguish between an object and the material from which it is made  
 Sc1/1.3b identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock  
 Sc1/1.3c describe the simple physical properties of a variety of everyday materials  
 Sc1/1.3d compare and group together a variety of everyday materials on the basis of their simple physical properties.

**Animals Including Humans**

Sc1/1.2a identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals  
 Sc1/1.2b identify and name a variety of common animals that are carnivores, herbivores and omnivores  
 Sc1/1.2c describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)  
 Sc1/1.2d identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

☞ Godstone Farm

**Plants**

Sc1/1.1a identify and name a variety of common wild and garden plants, including deciduous and evergreen trees  
 Sc1/1.1b identify and describe the basic structure of a variety of common flowering plants, including trees.

☞ Crystal Palace park

**Seasonal Changes**

Sc1/1.4a observe changes across the 4 seasons  
 Sc1/1.4b observe and describe weather associated with the seasons and how day length varies.

Year 2

WSc1.1 asking simple questions and recognising that they can be answered in different ways  
 WSc1.2 observing closely, using simple equipment  
 WSc1.3 performing simple tests  
 WSc1.4 identifying and classifying  
 WSc1.5 using their observations and ideas to suggest answers to questions  
 WSc1.6 gathering and recording data to help in answering questions

	<p style="text-align: center;"><b>Living things and their habitats</b></p> <p>Sc1/2.1a explore and compare the differences between things that are living, dead, and things that have never been alive          Sc1/2.1b 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          Sc1/2.1c identify and name a variety of plants and animals in their habitats, including micro-habitats          Sc1/2.1d 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.          📖 Thames Explore trust</p>	<p style="text-align: center;"><b>Uses of everyday materials</b></p> <p>Sc1/2.4a identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses          Sc1/2.4b find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p style="text-align: center;"><b>Animals, including humans</b></p> <p>Sc1/2.3a notice that animals, including humans, have offspring which grow into adults          Sc1/2.3b find out about and describe the basic needs of animals, including humans, for survival (water, food and air)          Sc1/2.3c describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p> <p>📖 <a href="https://www.classtrips.co.uk/school-trip/london-museum-of-water-steam/">https://www.classtrips.co.uk/school-trip/london-museum-of-water-steam/</a> - learning about the importance of water          📖 Thames Explore trust</p>
	<p style="text-align: center;"><b>Plants</b></p> <p>Sc1/2.2a observe and describe how seeds and bulbs grow into mature plants          Sc1/2.2b find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>		
<b>Year 3</b>	<p>WScL2.1 asking relevant questions and using different types of scientific enquiries to answer them          WScL2.2 setting up simple practical enquiries, comparative and fair tests          WScL2.3 making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers          WScL2.4 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions          WScL2.5 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables          WScL2.6 reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions          WScL2.7 using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions          WScL2.8 identifying differences, similarities or changes related to simple scientific ideas and processes          WScL2.9 using straightforward scientific evidence to answer questions or to support their findings.</p>		

	<p><b>Light</b></p> <p>ScL2/3.4a - recognise that they need light in order to see things and that dark is the absence of light          ScL2/3.4b - notice that light is reflected from surfaces          ScL2/3.4c - recognise that light from the sun can be dangerous and that there are ways to protect their eyes          ScL2/3.4d - recognise that shadows are formed when the light from a light source is blocked by an opaque object</p> <p>ScL2/3.4e - find patterns in the way that the size of shadows change.</p>	<p><b>Rocks</b></p> <p>ScL2/3.3a - compare and group together different kinds of rocks on the basis of their appearance and simple physical properties          ScL2/3.3b - describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>ScL2/3.3c - recognise that soils are made from rocks and organic matter.</p> <p>🏛️ Natural History Museum</p>	<p><b>Forces and magnets</b></p> <p>ScL2/3.5a - compare how things move on different surfaces          ScL2/3.5b - notice that some forces need contact between two objects, but magnetic forces can act at a distance          ScL2/3.5c - observe how magnets attract or repel each other and attract some materials and not others          ScL2/3.5d - 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          ScL2/3.5e - describe magnets as having two poles          ScL2/3.5f - predict whether two magnets will attract or repel each other, depending on which poles are facing.</p>	<p><b>Plants</b></p> <p>ScL2/3.1a - identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers          ScL2/3.1b - 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          ScL2/3.1c - investigate the way in which water is transported within plants          ScL2/3.1d - explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> <p>🏛️ Botanical gardens</p> <p>Learn about</p> <ul style="list-style-type: none"> <li>- <b>Professor Wangari Muta Maathai</b></li> <li>-</li> </ul>	<p><b>Animals, including humans</b></p> <p>ScL2/3.2a - 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          ScL2/3.2b - identify that humans and some other animals have skeletons and muscles for support, protection and movement.</p> <p>🏛️ KidZania – learning about animal care by becoming a vet etc.</p>
<p><b>Year 4</b></p>	<p>WScL2.1 asking relevant questions and using different types of scientific enquiries to answer them          WScL2.2 setting up simple practical enquiries, comparative and fair tests          WScL2.3 making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers          WScL2.4 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions          WScL2.5 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables          WScL2.6 reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions          WScL2.7 using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions          WScL2.8 identifying differences, similarities or changes related to simple scientific ideas and processes          WScL2.9 using straightforward scientific evidence to answer questions or to support their findings.</p>				

	<p><b>Electricity</b></p> <p>ScL2/4.5a – identify common appliances that run on electricity          ScL2/4.5b - construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers          ScL2/4.5c - 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          ScL2/4.5d - recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit          ScL2/4.5 - recognise some conductors and insulators, and associate metals with being good conductors</p> <p>🏠 The Crystal  <a href="https://www.thecrystal.org/">https://www.thecrystal.org/</a>          - sustainable building</p> <p>Learn about</p> <ul style="list-style-type: none"> <li>- Lewis Latimer</li> <li>- Thomas Edison</li> </ul>	<p><b>Sound</b></p> <p>ScL2/4.4a - identify how sounds are made, associating some of them with something vibrating          ScL2/4.4b - recognise that vibrations from sounds travel through a medium to the ear          ScL2/4.4c - find patterns between the pitch of a sound and features of the object that produced it          ScL2/4.4d - find patterns between the volume of a sound and the strength of the vibrations that produced it          ScL2/4.4e - recognise that sounds get fainter as the distance from the sound source increases.</p> <p>Invite in a musician to discuss sound and teach a lesson.</p>	<p><b>States of matter</b></p> <p>ScL2/4.3a - compare and group materials together, according to whether they are solids, liquids or gases          ScL2/4.3b - 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)          ScL2/4.3c - identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p><b>Living things and their habitats</b></p> <p>ScL2/4.1a - recognise that living things can be grouped in a variety of ways          ScL2/4.1b - explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment          ScL2/4.1c - recognise that environments can change and that this can sometimes pose dangers to living things.</p> <p>🏠 Go to the Horniman museum – follow the animal walk.</p>	<p><b>Animals, including humans</b></p> <p>ScL2/4.2a describe the simple functions of the basic parts of the digestive system in humans          ScL2/4.2b identify the different types of teeth in humans and their simple functions          ScL2/4.2c construct and interpret a variety of food chains, identifying producers, predators and prey.</p>
<p><b>Year 5</b></p>	<p>WScU2.1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>WScU2.2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>WScU2.3 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>WScU2.4 using test results to make predictions to set up further comparative and fair tests</p> <p>WScU2.5 reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>WScU2.6 identifying scientific evidence that has been used to support or refute ideas or arguments.</p>				

	<p><b>Forces</b></p> <p>ScU2/5.5a - explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>ScU2/5.5b - identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>ScU2/5.5c - recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>	<p><b>Earth and space</b></p> <p>ScU2/5.4a - describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>ScU2/5.4b - describe the movement of the Moon relative to the Earth</p> <p>ScU2/5.4c - describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>ScU2/5.4d - 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>Read about</p> <ul style="list-style-type: none"> <li>- Katherine Johnson</li> <li>- Gladys West</li> <li>-</li> </ul>	<p><b>Properties and changes of materials</b></p> <p>ScU2/5.3a - 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>ScU2/5.3a - know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>ScU2/5.3b - use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</p> <p>ScU2/5.3c - give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>ScU2/5.3d - demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>ScU2/5.3e - 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>	<p><b>Living things and their habitats</b></p> <p>ScU2/5.1a - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>ScU2/5.1b - describe the life process of reproduction in some plants and animals.</p>	<p><b>Animals, including humans</b></p> <p>ScU2/5.2a - describe the changes as humans develop to old age.</p>
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<b>Year 6</b>	<p>WScU2.1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>WScU2.2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>WScU2.3 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>WScU2.4 using test results to make predictions to set up further comparative and fair tests</p> <p>WScU2.5 reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>WScU2.6 identifying scientific evidence that has been used to support or refute ideas or arguments.</p>
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Light	Electricity	Evolution and inheritance	Animals including humans	Living things and their habitats
<p>ScU2/6.4a - recognise that light appears to travel in straight lines</p> <p>ScU2/6.4b - 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</p> <p>ScU2/6.4c - 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>ScU2/6.4d - 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>ScU2/6.5a - 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>ScU2/6.5b - 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>ScU2/6.5c - use recognised symbols when representing a simple circuit in a diagram.</p>	<p>ScU2/6.3a - 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>ScU2/6.3b - recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>ScU2/6.3c - identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p> <p>Learn about</p> <ul style="list-style-type: none"> <li>- Alice Augusta Ball</li> <li>- Dr Marie Maynard Daly</li> </ul>	<p>ScU2/6.2a - identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>ScU2/6.2b - recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>ScU2/6.2c - describe the ways in which nutrients and water are transported within animals, including humans.</p>	<p>ScU2/6.1a - 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</p> <p>ScU2/6.1b - give reasons for classifying plants and animals based on specific characteristics.</p>