

Cardinal Newman Catholic Primary School

Science Curriculum Overview



	<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
	Seasonal Changes (Autumn)	Humans (hygiene + looking after themselves)	Light/ Changing States of Matter	Growing plants/Seasonal Changes/New Life (chicks)	Living Things (animals and plants in contrasting natural environments)	Space Travel (and the moon) + Seasonal Change
Rec	<p>The classroom environment provides: Time to be outside and explore the natural world, weather and the changing seasons. Opportunities to recognise and observe the changes in seasons, talking about what they see using a wide range of vocabulary. Opportunities for children to use all their senses in hands-on exploration of natural materials, comparing them and recognising similar/ different properties. Resources that allow children make observations and capture experiences with adult support an independently. Opportunities and resources to explore changing states of matter. Opportunities and resources for children to follow their own lines of enquiry through the COEL</p>			<p>Characteristics of Effective Learning: Playing and Exploring; finding out and exploring, playing with what they know, be willing to have a go. Active Learning; Being involved and concentrating, keep trying, enjoying what they have set out to do. Creative and critical thinking; Having their own ideas, making links, working with ideas</p>		
Yr 1	<u>Seasonal Changes and Plants (2)/ Everyday Materials (4)</u> What are different objects made from?	<u>Seasonal Changes and Plants (2)/ Everyday Materials (4)</u> How do I group everyday materials based on simple physical properties?	<u>Seasonal Changes and Plants (2)/Animals, Inc. Humans (human body parts/senses) (4)</u> Can I identify, name, draw and label the basic parts of the human body?	<u>Seasonal Changes and Plants (2)/Animals, including Humans (animals) (4)</u> Can I name and identify different common animals – fish/amphibians/reptiles/birds/mammals)?	<u>Seasonal Changes and Plants (2)/ Animals Including Humans (4)</u>	<u>Seasonal Changes and Plants (2)/Plants (4)</u> Can I identify and describe the basic structure of a variety of common flowering plants, including trees? Can I identify and name a variety of plants and trees?
Yr 2	<u>Living Things and Plants (2)/Uses of Everyday Materials (4)</u> Why are certain materials more suitable for jobs and how can they be changed by squashing, bending, twisting and stretching?	<u>Living Things and Plants (2)/Uses of Everyday Materials (4)</u> Who in the world has developed useful new materials?	<u>Living Things and Plants (2)/Animals, including Humans (4)</u> How do animals obtain their food from plants and animals?	<u>Living Things and Plants (2)/Animals, including Humans (3)</u> What do animals need to stay healthy?	<u>Living Things and Plants (2)/Uses of Everyday Materials (4)</u> Who in the world has developed useful new materials?	<u>Living Things and Their Habitats/Plants (6)</u> What habitats and adaptations are found in Africa? What habitats and adaptations are found in the sea? How has this been affected by climate change?
Yr 3	<u>Light (5)/Plants (1)</u> How are shadows formed?	<u>Plants (1)/Forces (3)/Magnets (4)</u> Seed dispersal Pushes and pulls	<u>Animals, including Humans (5)/Plants (1)</u> What types of nutrition do humans need? Pollination	<u>Animals including Humans (5)</u> Skeletons	<u>Rocks (5)/Fossils (2)</u>	<u>Plants and soils (6)</u> What are the functions of different parts of flowering plants? What are the requirements of plants for life and growth?
Yr 4	<u>LT (1)/Properties of Materials: Changes in states of matter (6)</u> How can we group everyday materials based on whether they are solids, liquids or gases?	<u>LT (1)/States of Matter (4)/Electricity (2)</u> Evaporation/condensation/water cycle Simple Circuits How do I construct a simple series circuit using cells, wires, bulbs, switches and buzzers?	<u>LT (1)/Electricity (4)/Sound (2)</u> Conductors/insulators/switches/appliances How are sounds made? What patterns are there between the pitch of a sound and features of the object that produce it?	<u>LT (1)/Sound (4)</u> How sound travels/changes How do I construct a simple series circuit using cells, wires, bulbs, switches and buzzers?	<u>Sound (2)/Living Things and Their Habitats (5)</u> How sound changes – strength/distance How can classification keys be used to group, identify and name a variety of living things in	<u>Animals, including Humans (7 – start with food chains)</u> What are the functions of the digestive system?

					the local/wider environment?	
<u>Yr 5</u>	<u>Properties of Materials: Changes in states of matter (6)/</u> How can we group everyday materials based on their hardness, solubility, transparency, conductivity and response to magnets?	<u>Living Things (1)/Properties of Materials: Changes in states of matter (6)</u> How might mixtures be separated (filtration, sieving, evaporation)?	<u>Forces (6)</u> What are the effects of air resistance, water resistance and friction?	<u>Forces (levers/pulleys/gears)/Earth and Space (2) Living Things (1)</u>	<u>Earth and Space (4)</u> How does the Earth and other planets move relative to the Sun in the solar system? <u>Animals, including Humans (3)</u> What are the changes to humans as they move to old age?	<u>Living Things and Their Habitats (6)</u> What are the differences in life cycles of a mammal, amphibian, insect and bird?
<u>Yr 6</u>	<u>Electricity (6)</u> Give reasons for variations in components function, brightness of bulbs, loudness of buzzers and the on/off position of switches?	<u>Animals, including humans (6)</u> What is the name and function of the main parts of the circulatory system? How do diet, exercise, drugs and lifestyle impact the body's function?	<u>Light (6)</u> Can you prove that light travels in straight lines?	<u>Living Things and Their Habitats (6)</u> Classify according to common observable characteristics and based on similarities and differences – including micro-organisms, plants and animals?	<u>Evolution and inheritance (6)</u> How are animals and plants adapted to suit their environment? Why are offspring not identical to their parents?	<u>British Scientists and Inventors (6)</u> What contributions to science have British scientists made? How are scientific theories debated?

PLEASE NOTE: IN YEARS 1 TO 4, THE TOPIC OF PLANTS, LIVING THINGS AND SEASONAL CHANGES ARE SPREAD ACROSS TERMS IN ORDER TO MAKE USE OF THE LOCAL AREA AND MAKE COMPARISONS. (KEY: LTP – LIVING THINGS AND PLANTS/SEASON CHANGES AND PLANTS – SEASONAL CHANGES AND PLANTS). The number in brackets is the number of weeks dedicated to that topic.