St Finbar's Catholic Primary School

St Finbar's Science Curriculum Overview

	Autumn term		Spring Term		Summer Term	
N	Children begin to explore the world around them using their senses. They notice and describe features of the natural environment and talk about changes they observe. ***Skills focus:*** *observing using senses, noticing similarities and differences, developing scientific talk ("I see…", "It feels…"), asking simple questions.*	Pupils observe and talk about different kinds of weather and seasonal changes. They begin to make simple comparisons (cold/hot, wet/dry) and notice how weather affects what we wear and do. ***Skills focus:*** *observing changes over time, using comparative language, making predictions, recording with drawings or photos.*	Children explore how plants and animals grow and change over time. They plant seeds, care for living things, and talk about what they need to stay alive and healthy. ***Skills focus:*** *caring for living things, observing over time, sequencing growth stages, using vocabulary like grow, change, need, and healthy.*	Pupils handle a variety of everyday materials, describing textures and properties (hard, soft, rough, smooth, shiny). They explore how materials can change when squashed, twisted, or mixed with water. ***Skills focus:*** *sorting and classifying, describing materials, noticing cause and effect, using sensory vocabulary*.	Children explore water through play — pouring, floating, and sinking. They notice what happens when materials are added to water and how temperature changes water (ice, steam). ***Skills focus:*** *making predictions, testing ideas, using simple equipment (containers, funnels), describing observations.*	Pupils learn about caring for nature, recycling, and protecting animals and plants in their local environment. ***Skills focus:*** *understanding cause and effect, discussing ways to help, showing care and responsibility for living things.*

R	Children explore the natural environment around them — their classroom, outdoor area, and local spaces. They notice similarities and differences between places, materials, and living things. ***Skills focus:*** *observing closely, using descriptive language, sorting and grouping, developing curiosity and care for living things.*	Pupils observe weather patterns and how trees, plants, and animals change as seasons shift. They record what they see through drawings, photos, or simple charts. ***Skills focus:*** *observing changes over time, identifying patterns, using comparative vocabulary (colder, darker, shorter days), and making predictions.*	Children explore everyday materials (wood, fabric, plastic, metal) and discuss how they feel and what they are used for. They test materials in play — building, pouring, and sorting. **Skills focus:** describing textures and properties, classifying, testing ideas through play, and recording results using pictures or talk.	Pupils plant seeds and bulbs, observe growth over time, and describe what plants and animals need to stay healthy. They compare living and non-living things. **Skills focus:** observing carefully over time, sequencing life cycles, asking questions ("What will happen if...?"), and using appropriate vocabulary (grow, change, alive, need).	Children learn that animals have offspring which grow into adults. They explore similarities and differences between animals and humans. ***Skills focus:*** *classifying, comparing features, describing growth and change, using language of comparison.*	Pupils explore how the environment changes in summer and how we can care for living things. They link their observations to previous seasons and describe how weather affects plants, animals, and people. ***Skills focus:*** *making comparisons, noticing cause and effect, explaining simple patterns, and showing responsibility for nature.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Park Explorers	**My Body and My Senses**	**Everyday Materials**	**Animal Groups**	**Animal Diets**	**Seasonal Changes**
Y1	Children explore the school grounds and local area to observe plants, animals, and seasonal change. They learn how scientists use their senses and careful observation to explore the natural world. .	Pupils learn to name and locate basic parts of the human body and identify which part of the body is associated with each sense. They explore how our senses help us to understand the world around us.	Children identify a range of materials (wood, plastic, metal, glass, fabric) and describe their properties. They explore how materials are used for specific purposes and test their suitability.	Pupils learn to identify, name, and group animals into mammals, birds, fish, reptiles, amphibians, and insects. They compare features and discuss how animals are suited to their environments.	Children explore what animals, including humans, need to survive and classify them as herbivores, carnivores, or omnivores. They make links between diet, health, and survival.	Pupils observe and describe changes in the weather, temperature, and daylight across the seasons. They record data over time and begin to make predictions based on observations.
	Skills focus: *observing closely using simple equipment, identifying and naming familiar plants and animals, describing observations, recording using drawings and labels.*	***Skills focus:*** *using senses to observe and compare, asking simple questions, classifying body parts, recording information through labelled diagrams.*	***Skills focus:*** *grouping and classifying materials by property, performing simple comparative tests, describing textures and uses, recording data in simple charts.*	***Skills focus:*** *classifying and identifying, observing carefully, sorting using criteria, explaining differences using scientific language.*	***Skills focus:*** *identifying patterns, collecting and organising information, comparing diets, drawing conclusions from simple data.*	***Skills focus:*** *observing changes over time, measuring weather patterns, recording using symbols or tables, describing seasonal patterns and effects on nature.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y2	**Zhi Grows a Plant** Children explore how seeds and bulbs grow into mature plants, investigating what plants need to stay healthy. They observe growth over time and compare conditions that affect development. ***Skills focus:*** *observing changes over time, identifying variables (light, water, temperature), recording measurements, and drawing simple conclusions from evidence.*	**Uses of Everyday Materials** Pupils identify and compare a range of materials and explore how they can be changed by bending, squashing, twisting, or stretching. They link material properties to real-life uses. ***Skills focus:*** *performing simple tests, comparing materials, identifying and describing physical changes, recording findings in tables and drawings.*	**Pip discovers Living Things** Pupils will identify and describe differences between living, dead and never alive things. They will classify and provide reasons for their classification. ***Skill Focus:*** *observing closely using simple equipment, identifying and classifying living, dead and never alive things, and asking and answering simple scientific questions.*	Spring Unit 2 HEP title to be confirmed	Summer Unit 1 HEP title to be confirmed	Summer Unit 2 HEP title to be confirmed

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y3	**Plants** Pupils learn about the functions of roots, stems, leaves, and flowers and investigate what plants need to grow healthily. They explore how water is transported within plants and how pollination and seed dispersal occur. ***Skills focus:*** *observing carefully over time, setting up simple tests, recording data in tables, identifying patterns, and explaining results.*	**Rocks** Children compare and group rocks based on appearance and properties, learn how fossils form, and explore how soil is made. ***Skills focus:*** *classifying, using simple comparative tests, describing and grouping according to observable features, and using evidence to draw conclusions.*	**Light** Pupils investigate light sources, reflection, and how shadows form and change. They learn how light helps us see and how materials can block or reflect it. ***Skills focus:*** *predicting outcomes, measuring and recording shadow lengths, using equipment accurately, and identifying patterns in results.*	**Animals Including Humans** Pupils study nutrition and the role of the skeleton and muscles in movement, protection, and support. They learn that animals, including humans, need the right types and amounts of nutrition. ***Skills focus:*** *asking relevant questions, recording results using diagrams and charts, interpreting findings, and explaining scientific ideas clearly.*	**Forces and Magnets** Children explore how magnets attract or repel each other and identify magnetic materials. They compare movement on different surfaces and learn about magnetic poles. ***Skills focus:*** *setting up fair tests, recording data systematically, using results to make predictions, and applying scientific reasoning.*	**The Bee Project** Pupils apply their understanding of plants, pollination, and habitats in a real-life context. They investigate the role of bees in ecosystems and the importance of biodiversity. ***Skills focus:*** *making observations over time, drawing simple conclusions, and communicating findings.*

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Y4	**States of Matter** Pupils explore solids, liquids and gases; investigate heating & cooling and how materials can change state. ***Skills focus:*** *observing changes, measuring and recording data, comparing properties, drawing conclusions.*	**Animals Including Humans** Pupils study the digestive system, nutrition, food chains, and healthy lifestyles. ***Skills focus:*** *asking questions, gathering observational data, constructing simple food chains, using scientific vocabulary.*	**Science of Sound** Pupils investigate sound production, how vibrations travel through media, and volume and pitch. ***Skills focus:*** *setting up fair tests, using equipment to measure sound, interpreting results, describing relationships.*	**Living Things and Their Habitats** Pupils learn to group living things, use classification keys, and explore how environments change and may pose danger. ***Skills focus:*** *classification, using keys, observing changes over time, recording findings, explaining habitats.*	**Electricity** Pupils build and explore circuits, identify conductors/insulators, and understand basic electrical safety and function. **Skills focus:** planning tests, observing effects of components in circuits, recording circuit diagrams, explaining how circuits work.	**The History of Science** Pupils connect learning across years by exploring how science developed historically and investigating key scientists and discoveries. ***Skills focus:*** *using historical context to inform scientific enquiry, comparing ideas over time, presenting findings, reflecting on how science builds.*

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Y5	**Properties and Changes of Materials** Pupils classify materials, explore dissolving and separating mixtures, and investigate reversible and irreversible changes. ***Skills focus:*** *setting up comparative tests and fair investigations, measuring and recording changes, interpreting results, using scientific vocabulary to explain processes.*	**Animals Including Humans** Pupils study life cycles of plants and animals, reproduction in different species, and the human life cycle. ***Skills focus:*** *asking detailed questions, gathering data (e.g., growth over time), constructing explanations, using diagrams/charts and precise vocabulary.*	**Forces** Children investigate gravity, air and water resistance, friction, and use of levers, pulleys and gears to multiply force. ***Skills focus:*** *planning fair tests to compare forces, measuring effects of changes, recording findings methodically, drawing conclusions and linking them to physical mechanisms.*	**Living Things and Their Habitats** Pupils classify animals and plants into groups, investigate life cycles of insects, birds, amphibians and mammals, and understand biodiversity and habitats. ***Skills focus:*** *using classification keys, observing change over time, recording and comparing life cycles, drawing evidence-based conclusions, explaining ecological relationships.*	**Earth and Space** Pupils learn about the solar system, the Earth's rotation and orbit, phases of the Moon, day/night cycles and planetary movement. ***Skills focus:*** *interpreting models and diagrams, making observations of celestial patterns, measuring time/days, explaining cycles and relationships, using scientific vocabulary accurately.*	**The Scientific Method** Children explore how scientists work: planning investigations, controlling variables, using data, evaluating methods and reflecting on findings. ***Skills focus:*** *designing investigations, selecting appropriate methods and equipment, analysing results, evaluating the reliability of investigations and presenting findings clearly.*

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y6	**Animals Including Humans** Pupils explore the human circulatory system, the impact of diet, exercise and lifestyle on body function, and the transport of nutrients and water. ***Skills focus:*** *planning investigations involving variables, taking precise measurements, interpreting data on heart rate, explaining and evaluating how lifestyle affects health.*	**The Science of Light** Children investigate how light travels in straight lines, how shadows are formed and how reflection and vision work. ***Skills focus:*** *designing tests of light behaviour, using equipment to measure angles/shadow length, recording diagrams and graphs, explaining reflection and refraction.*	**Electric Circuits** Pupils build and analyse complex circuits, understand symbols, voltage, conductors, and the function of components. ***Skills focus:*** *planning fair tests with electrical components, measuring current/voltage, recording circuit diagrams, identifying variable impact, evaluating methods.*	**Evolution and Inheritance** Children learn about how species have evolved over time, understanding adaptation, inheritance and the diversity of life. ***Skills focus:*** *researching fossil evidence, comparing species traits, classifying living things by inheritance, drawing conclusions about adaptation and evolution.*	**Living Things and Their Habitats** Pupils classify organisms including micro-organisms, explore ecosystems, understand how environmental changes affect living things. ***Skills focus:*** *using classification keys, surveying habitats, recording ecological data, analysing how changes affect living organisms, presenting findings.*	**Preparing for Secondary Science** This unit transitions pupils to secondary science, focusing on deeper enquiry skills, critical thinking and applying their learning across scientific disciplines. ***Skills focus:*** *planning investigations independently, selecting appropriate methods and equipment, interpreting complex data, evaluating reliability and communicating extended findings.*