



St Mary's Catholic Primary School

Science Curriculum Map



Term	Nursery (Understanding of the World)	Reception (Understanding of the World)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	- Explore the natural world around them making observations and drawing pictures of animals and plants. - Know some similarities and differences between the natural world and contrasting environments drawing on their experiences and what has been read in class - Understand some important processes and changes in the natural world around them including the seasons and changing states of matter. - Describe their immediate environment using knowledge from observation, discussion, stories, nonfiction texts and maps.		- Animals Including Humans - Seasonal Changes (Autumn) - Animals Including Humans (Cont.) - Seasonal Changes (Winter) - Everyday Materials - Seasonal Changes (Spring) - Plants - Seasonal Changes (Summer)	- Living Things and their Habitats - Uses of Everyday Materials - Plants (Part 1) - Animals Including Humans - Plants (Part 2)	- Forces and Magnets - Animals Including Humans - Plants - Rocks - Light	- States of Matter - Animals Including Humans - Sound - Living Things and their Habitats - Electricity	- Properties and Changes of Materials - Animals Including Humans - Living Things and their Habitats - Forces - Earth and Space	- Electricity - Light - Living Things and their Habitats - Animals Including Humans - Evolution and Inheritance
Autumn	All about Me (Animals including Humans, Light & Seasonal Changes) - Identifying body parts - Senses - Describing themselves and their bodies - Begin to make sense of their own life-story and family's history. Book: Augustus and his Smile - Describing weather and seasonal changes - Shadows - Reflections Winter Wonderland (Living Things and their Habitats & Animals including Humans, Plants) Nature Walks: - Use all their senses in hands-on exploration of natural materials by going on nature walks, identifying and collecting natural objects. - Explore collections of materials with similar and/or different properties. - Begin to understand the need to respect and care for the natural environment and all living things by identifying things left by humans in the environment. - Draw natural objects, group objects together that are similar and use natural objects to make pictures and patterns.	All about Me (Animals including Humans, Light & Seasonal Changes) - Identifying body parts - Senses - Describing themselves and their bodies - Talk about members of their immediate family and community. - Name and describe people who are familiar to them. Book: Augustus and his Smile - Describing weather and seasonal changes - Shadows - Reflections Winter Wonderland (Living Things and their Habitats, States of Matter, Forces, Materials & Seasonal Change) Book: Room on the Broom - Exploring materials to make a broom - - Mixing - collecting leaves and stones to make potions - Testing objects: what floats or sinks? Book: Stickman - Naming the seasons and describing their characteristics - Explore the natural world around them. - Name clothing worn - Describe what they see, hear and feel whilst outside. - Create snow globes - solid/ liquid. Observe changing states of matter. Gayfawkes and Bonfire Night: - Exploring materials by making firework pictures. The Nativity: - Exploring different materials used past and present for babies'	Animals Including Humans - Identify and name a variety of common animals. - Classify animals as carnivores, herbivores or omnivores. - Describe and compare the features of different animals. - Identify, label and explain the basic parts of the human body and the five senses. Seasonal Changes (Autumn) - Observe changes across the four seasons. - Observe and describe weather associated with the seasons and how day length varies. Animals Including Humans (Cont.)	Living Things and their Habitats - Compare living, dead and never-living things. - Identify how plants and animals are suited to different habitats and depend on one another. - Name plants and animals found in habitats and microhabitats. - Explain simple food chains and identify different food sources. Uses of Everyday Materials - Compare the suitability of different materials for everyday uses. - Explore how materials can be changed by squashing, bending, twisting and stretching.	Forces and Magnets - Compare how objects move on different surfaces. - Identify contact forces and non-contact forces (magnetism). - Observe attraction and repulsion between magnets and magnetic materials. - Group materials based on whether they are magnetic. - Describe magnets as having two poles. - Predict attraction or repulsion based on pole orientation. Animals Including Humans - Explain that animals, including humans, need nutrition from food to survive. - Identify how skeletons and muscles support, protect and help movement.	States of Matter - Compare and group materials as solids, liquids or gases. - Explain how materials change state when heated or cooled. - Describe evaporation, condensation and the water cycle. Animals Including Humans - Explain the functions of the digestive system and different types of teeth. - Construct and interpret food chains, identifying producers, predators and prey.	Properties and Changes of Materials - Compare and group materials based on their properties. - Explain dissolving, solutions and methods of separating mixtures. - Give reasons for the uses of different materials based on their properties. - Identify and explain reversible and irreversible changes. Animals Including Humans - Describe the changes as humans develop to old age.	Electricity - Investigate how the number and voltage of cells affect brightness and volume. - Compare how circuit components function and explain variations. - Use standard symbols to draw simple circuit diagrams. Light - Explain that light travels in straight lines. - Describe how we see objects because light enters the eye after reflecting or travelling from a light source. - Use light travel to explain why shadows match the shape of objects.

		beds. The Gingerbread man: • Cooking: Mixing materials & rolling, stretching, pushing (forces) • Heating - observing changes of state						
Spring	Traditional Tales (Materials, Living Things and their Habitats) Book: Billy Goats Gruff • Draw information from a simple map. • Explore local bridges and build their own from a range of materials. Book: The Three Little Pigs • Create houses using different materials, discussing their properties. • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about the differences between materials and changes they notice Growing (Plants, Living things & their Habitats) • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things.	Traditional Tales (Materials, Living Things and their Habitats) Book: Billy Goats Gruff • Draw information from a simple map. • Explore local bridges and build their own from a range of materials. Book: The Three Little Pigs • Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Create houses using different materials, discussing their properties. • Recognise some environments that are different to the one in which they live. Growing (Plants, Living things & their Habitats) • Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Recognise some environments that are different to the one in which they live. • Observing changes over time when planting a bean. • Explore the concept of Food waste through the story of the Hungry Caterpillar Explore the Life cycles of flowering plants and a butterfly. Seasonal Changes • Understand the effect of changing seasons on the natural world around them.	Seasonal Changes (Winter) Everyday Materials • Distinguish between objects and the materials they are made from. • Identify and name common materials. • Describe and compare simple properties of materials. • Group materials based on their properties.	Plants (Part 1) • Observe and describe how seeds and bulbs grow into mature plants. Animals Including Humans • Describe how animals, including humans, have offspring that grow into adults. • Identify the basic needs of animals and humans for survival. • Explain the importance of exercise, diet and hygiene for humans.	Animals Including Humans (Cont.) Plants • Describe the functions of parts of flowering plants. • Investigate what plants need for growth and how needs vary. • Explain how water is transported in plants. • Describe the role of flowers in the plant life cycle.	Animals Including Humans (Cont.) Sound • Explain how sounds are made through vibrations. • Describe how sound travels through a medium to the ear. • Investigate patterns between pitch, volume and vibrations. • Recognise that sound becomes quieter with distance.	Living Things and their Habitats • Compare the life cycles of mammals, amphibians, insects and birds. • Describe reproduction in plants and animals. Forces • Explain gravity and why unsupported objects fall to Earth. • Identify the effects of air resistance, water resistance and friction. • Describe how mechanisms (levers, pulleys, gears) change the effect of forces.	Living Things and their Habitats • Classify living things (including microorganisms, plants and animals) based on similarities and differences. • Give reasons for grouping plants and animals using specific characteristics.
Summer	Animals (Living Things and their Habitats, Animals excluding Humans) • Exploring where animals live - habitats • Dinosaurs - secondary sources Book: What the Ladybird Heard • Exploring what a farm is. • Exploring different foods that come from animals. • Sorting and classifying - animals sorted by number of legs • Exploration of the pond - life cycle of a frog - amphibians	Animals (Living Things and their Habitats, Animals excluding Humans) • Exploring where animals live - habitats • Dinosaurs - secondary sources Book: What the Ladybird Heard • Exploring what a farm is. • Exploring different foods that come from animals. • Sorting and classifying - animals sorted by number of legs • Exploration of the pond - life cycle of a frog - amphibians	Seasonal Changes (Spring) Plants • 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. Seasonal Changes (Summer)	Animals Including Humans (Cont.) Plants (Part 2) • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Rocks • Compare and group rocks based on their properties. • Explain how fossils are formed. • Describe how soils are made from rocks and organic matter. Light • Explain that light is needed to see and that darkness is the absence of light. • Recognise that light reflects from surfaces and can be dangerous.	Living Things and their Habitats • Group living things in different ways. • Use classification keys to identify and name living things. • Describe how environmental changes can affect living things. Electricity • Identify common electrical appliances. • Build and identify parts of a simple series circuit. • Explain when a lamp will	Forces (Cont.) Earth and Space • Describe the movement of the Earth and other planets around the Sun. • Describe the Moon's movement around the Earth. • Recognise the Sun, Earth and Moon as spherical bodies. • Explain day and night using Earth's rotation.	Animals Including Humans • Identify the main parts of the circulatory system and their functions. • Describe how diet, exercise, drugs and lifestyle affect the body. • Explain how nutrients and water are transported in humans and other animals. Evolution and Inheritance • Explain evolution, including fossils as evidence of past life.

	Transport (Forces & Living Things and their Habitats & Rocks) Book: Naughty Bus • Making ramps for vehicles and exploring speed. • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. Book: Rosie’s Holiday • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties.	Transport (Forces & Living Things and their Habitats) Book: Emma Jane’s Aeroplane • Explore the natural world around them. • Look at world map to trace Emma’s Journey and landmarks • Describe what they see, hear and feel whilst outside. • Caring for the natural world during seasonal changes			• Explain how shadows are formed and how their size changes.	light in a complete circuit. • Recognise how switches open and close circuits. Identify conductors and insulators.		• Describe variation in offspring and how they are similar to but not identical to parents. • Explain how adaptation supports survival and can lead to evolution.
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