St Clare's Catholic Primary School

Following in the footsteps of Jesus

Science Curriculum

Year One Science Curriculum: Autumn Term	Key Vocabulary
Seasonal changes throughout the year- Observe changes across the 4 seasons Observe and describe weather associated with the seasons and how day length varies Animals including Humans : Naming animals (main focus of this topic) Introduce classification vocabulary and the structure of a variety of common animals and comparing Diet of animals and naming animals that belong to each group Name and label basic parts of the human body and label each of the 5 senses	Autumn Winter Spring Summer Fish Amphibians Mammal Reptiles Birds Carnivore Herbivore Omnivore
Year One Science Curriculum: Spring Term	
Seasonal changes throughout the year 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	Leaves Stem Flower Blossom Petal Fruits Roots Bulb Seed Trunk Branches Deciduous and evergreen
Year One Science Curriculum: Summer Term	
Seasonal changes throughout the year Everyday Materials	Wood Plastic

Distinguish between an object and the material Identify and name everyday materials Describe simple physical properties Compare and group together materials based on their properties	Glass Metal Water Rock
Year Two Science Curriculum: Autumn Term	
Continual local environment plant study on how plants grow Animals including Humans Recap of animal names and features of each group Basic needs of animals linked to each animal groupings Importance of diet, exercise, food and hygiene (food pyramid to introduce food groups and brief explanation of their importance) Animals have offspring that grow into adults – humans, caterpillar, tadpole and a bird Living things and their Habitats 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, 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	Fish Insects Mammals Reptiles Amphibians Birds Food groups (carbohydrates, proteins, dairy, fruit and veg, fats and oils) Living Dead Never been alive Micro habitats Food chain Environment
Year Two Science Curriculum: Spring Term	
Continual local environment plant study on how plants grow Everyday materials Suitability of everyday materials How the shape of solid objects can be changed by the forces of bending, squashing, twisting and stretching	Wood Metal Plastic Glass Brick Rock Paper

	cardboard
Year Two Science Curriculum: Summer Term	
Plants Continual local environment plant study on how plants grow Observe and describe how seeds and bulbs grow into mature plants Find out how plants need water, light and a suitable temperature to grow and stay alive (test against the 3 criteria)	Germination Reproduction Growth Survival
Year Three Science Curriculum: Autumn Term	
Animals including humans Types and amounts of nutrition for humans Focus on food groups and a detailed explanation as to why they are important Focus on different animal groups and how they get their nutrition Identify that humans and some animals have a skeleton for protection and movement Muscles	Carbohydrates, proteins, dairy, fruit and veg, fats and oils Carnivore Herbivore Omnivore A range of common bones with their scientific names Skeletal and muscular systems
Year Three Science Curriculum: Spring Term	
Rocks Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties Describe in simple terms how fossils are formed when things that have lived are trapped within rock Recognise that soils are made from rocks and organic matter	Fossils Sedimentary Organic matter
Forces and Magnets Compare how things move on different surfaces Some forces contact between 2 objects Observe how magnets attract and repel each other, how they can act at a distance and what materials magnets are attracted to or not attracted to Describe magnets as having 2 poles	Forces Contact Magnetic forces Attract Repel Poles Behaviour

Predict whether 2 magnets attract or repel depending on the direction of the poles	
Year Three Science Curriculum: Summer Term	
Plants Function of each part of the plant Requirements of plants for life and growth How water is transported in plants Life cycle of flowering plants **Light** Know that light is needed to see things and darkness is an absence of light Light is reflected from surfaces How shadows are formed and how they change size	Air Water Light Nutrients Room to grow Pollination Seed dispersal Reproduction Function and structure transport light mirror reflection protection from the sun protection from bright lights shadows
Year Four Science Curriculum: Autumn Term	
Living things and their habitats More detailed grouping using classification keys to help Human impact, positive and negative Dangers to living things **Electricity** Identify common appliances that run on electricity Construct a simple circuit, identifying and naming the basic parts Explore whether a lamp will light in a simple circuit	Environment Habitat Vertebrates Invertebrates Flowering and non-flowering Ecologically planned environments Cells Wires Bulbs Switches

Recognise that a switch opens and closes a circuit Recognise some common conductors and insulators Associate metals with being good conductors.	Buzzers Conductor Insulator
Year Four Science Curriculum: Spring Term	
Animals including humans Describe the simple functions of the basic parts of the digestive system in humans Identify the different types of teeth in humans and their simple functions Construct and interpret a variety of food chains, identifying producers, predators and prey **Sound** Identify how sounds are made, associating some of them with something vibrating recognise that vibrations from sounds travel through a medium to the ear Find patterns between the pitch of a sound and features of the object that produced it Find patterns between the volume of a sound and the strength of the vibrations that produced it Recognise that sounds get fainter as the distance from the sound source increases	Digestive system Vibrations Pitch Volume Patterns Insulation
Year Four Science Curriculum: Summer Term	
States of matter Compare and group objects together according to whether they are solids, liquids or gases Observe changes in some materials when they are heated or cooled and measure the temperature at when it happens in degree Celsius Identify evaporation and condensation in the water cycle	Solids Liquids Gases Degree Celsius Evaporation Condensation
Year Five Science Curriculum: Autumn Term	
Animals including humans Describe the changes of humans to old age Draw a timeline focus on changes during puberty (link to EPR) Reproduction and gestational periods of other animals **Living things and their habitats** Differences in life cycles of a mammal, amphibian, insect and bird Life processes in some plants and animals	Reproduction Gestation Hormones Eggs and sperm Menstrual cycle Tubers Asexual

	Sexual reproduction
Year Five Science Curriculum: Spring Term	
Earth and Space 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	Solar system Names of planets Celestial body Orbit Planet
Forces Force of gravity on Earth and explain how and why objects fall to the ground Describe and investigate the effects of air resistance, water resistance and friction Recognise that some mechanisms; levers, pulleys and gears, allow a smaller force to have a greater effect	Gravity Air resistance Water resistance Friction Galileo Gallinei Isaac Newton
Year Five Science Curriculum: Summer Term	
Properties and changes of materials Compare and group together everyday materials on the basis of their properties 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 describe how mixtures might be separated Use comparative and fair tests to explain the uses of everyday materials Show that dissolving, mixing and changes of state are reversible changes Explain that some changes result in the formation of new materials and that this is not a reversible change.	Solubility Transparency Conductivity Electrical Thermal Response to magnets Solution Substance Filtering Sieving Evaporation
Year Six Science Curriculum: Autumn Term	
Light Recognise that light travels in straight lines and use this to explain that objects are seen because they give out or reflect light into the eye Explain how we see things – the light travels from light sources to our eyes or from light sources to objects and then our eyes. Use this idea of light traveling in straight lines to explain why shadows have the same shape as the objects that cast them.	Light sources Reflection Shadows Straight lines Periscope Shadow puppets

Living things and their habitats How living things are classified into broad groups in more detail (including sub-divisions) Give reasons for classifying plant and animals based on certain characteristics	Vertebrates Invertebrates Characteristics Micro-organisms
Year Six Science Curriculum: Spring Term	
Animals including humans Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Describe the ways in which nutrients and water are transported within animals, including humans	Internal organs Skeletal, musical and digestive systems Circulatory systems Substance misuse
Evolution and Inheritance Recognise that all living things have changed over time and fossils provide information about living things on Earth millions of years ago. Recognise that living things produce offspring of the same kind but understand that offspring vary and are not identical to their parents Identify how animals and plants have adapted to suit their environment in different ways and that adaptation may lead to evolution	Evolution Adaptation Fossils Earth Millions of years Offspring Characteristics Mary Anning Charles Darwin Alfred Wallace
Year Six Science Curriculum: Summer Term	
Electricity Understand that the brightness of a lamp or the volume of a buzzer is determined by the number and voltage of cells used in the circuit Compare and give reasons for how components work, including brightness of bulbs, the loudness of buzzers and the off/on switches Use recognised symbols when representing a simple circuit diagram	Motors Diagram Simple symbols Series and parallel circuits Component