



The intent of our Science Curriculum at Mayfield

Our high-quality science education at Mayfield aims to provide all learners with the foundations for understanding the world through the specific disciplines of biology, physics and chemistry, as well as develop a sense of excitement and curiosity about natural phenomena within every pupil.

The aims for implementation of our curriculum for science at Mayfield

To ensure that all pupils:

- develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics;
- understand the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them;
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

Chemistry

Biology

Physics

Each of the 5 types of scientific enquiry will be focused upon throughout the year:

- **Pattern seeking**
- **Research**
- **Simple, comparative, fair testing**
- **Identifying and classifying**
- **Observation over time**



Year 1		
Topic: Animals including humans - senses What do you use sense for? Biology	Topic: Everyday materials What's special about materials? Chemistry	Topic: Seasonal changes What do you notice about our seasons? Physics
Our Bodies: <ul style="list-style-type: none"> - ears, eyes, nose, mouth, arms, legs, head, skull, stomach, heart, fingers, toes, feet, hands Senses: <ul style="list-style-type: none"> - touch taste smell skin tongue taste buds nose scent sweet salt bitter Humans Mammal Warm blooded	<ul style="list-style-type: none"> - Materials - Wood - Plastic - Metal - Liquid - Gas - Stretch - Stiff - Bend - Waterproof - Shiny 	<ul style="list-style-type: none"> - Season - Summer, Spring, Autumn, Winter - Sun - Temperature - Thermometer - Weather symbol - Deciduous - Evergreen - Conifer tree
Topic: Animals including humans What do we know about animals? Biology	Topic: Plants Can you be a plant detective? Biology	Topic: Plants- our changing world. How do plants and animals change? Biology
<ul style="list-style-type: none"> - Fish - Amphibians - Reptiles - Birds - Mammals - Carnivores - Herbivores - Omnivores - Tame - Wild - Nocturnal 	<ul style="list-style-type: none"> - Stem - Flower - Bud - Root system - Tap root - Fibrous roots - Tree trunk - Deciduous - Blossom - Environment - Bulbs 	Revisit key vocabulary from HT4 and HT5.

Year 2		
Topic: Animals including humans Growing up and Take care Biology	Topic: Plants Being a gardener Biology	Topic: Everyday Materials How can we shape up? Chemistry <i>Please note this topic has been divided into 2 terms</i>
<ul style="list-style-type: none"> - Survive - Basic needs - Animal/ baby animal names e.g. kitten / cat - baby/ toddler/ child / teenager/ adult - Dairy carbohydrates protein sweets & oils fruits & vegetables - Heart - Muscle - Exercise - Healthy 	<ul style="list-style-type: none"> - Sunlight - Water - Temperature - Nutrition - Plants - Seed - Bulb - Germination - Sprout - Shoot - Seed dispersal 	<ul style="list-style-type: none"> - Metal - Plastic - Charles Macintosh - John Dunlop - Wood - Squashing - Bending - Twisting - Stretching - John McAdam
Topic: Everyday Materials What makes a good material? Chemistry <i>Please note this topic has been divided into 2 terms.</i>	Topic: Living things and their habitats- What's in your habitat? Biology	
<ul style="list-style-type: none"> - Metal - Plastic - Charles Macintosh - John Dunlop - Wood - Squashing - Bending - Twisting - Stretching - John McAdam 	<ul style="list-style-type: none"> - Dinosaurs - Indigenous - Rivers - Woodlands - Ponds - Sea - Rainforest - Desert - Species - Microhabitats 	

Year 3		
Topic: Light Can you see me? Physics	Topic: Animals including humans How does my body work? (<i>Snap Science: Amazing Bodies</i>) Biology	Topic: Forces and magnets How do forces and magnets work? Physics
<ul style="list-style-type: none"> - light - dark - reflect - reflective - surface - natural - moon - artificial - translucent - transparent 	<ul style="list-style-type: none"> - Nutrition - Skeleton - Muscles - Diet - Joint - Pelvis - Cartilage - Rib cage - Tendon - Spine 	<ul style="list-style-type: none"> - Magnet - Force - Contact forces - Attract - Repel - Friction - Poles - Brass - Steel - Copper - Iron
Topic: Plants How does your garden grow? Biology	Topic: Rocks Are you a Rock Detective? Chemistry	
<ul style="list-style-type: none"> - Roots - Stem - Nutrients - Pollination - Seed dispersal - Fertiliser - Seed formation - Stigma - Anther - Soil 	<ul style="list-style-type: none"> - Fossil - Soil - Crystals - Sedimentary - Metamorphic - Igneous - Magnetic pole - Organic matter - Attract - Repel 	

Year 4		
Topic: Sound Why does sound vibrate? Physics	Topic: States of matter What's in a state? Chemistry	Topic: Electricity How can we be switched on? Physics
<ul style="list-style-type: none"> - vibrate - travel - solid - liquid - gas - pitch - tune - fainter - muffle - vibrations - insulation - instrument 	<ul style="list-style-type: none"> - Water vapour - Condensation - Precipitation - Evaporation - Substance - Matter - Lava 	<ul style="list-style-type: none"> - Circuit - Buzzers - Conductor - Battery - Cells - Switch - Socket - Appliance - Appliance series circuit - Insulator
Topic: Animals, including Humans Where does all that food go? Biology	Topic: Living things and their habitats Who am I? Biology	Topic: Living things and their habitats What's the Human Impact? Biology
<ul style="list-style-type: none"> - Pancreas - Oesophagus - Intestine - Organ - Molars - Canine - Food chain - Predators - Prey - Salivary gland 	<ul style="list-style-type: none"> - Organisms - Life processes - Respiration - Sensitivity - Reproduction - Excretion - Nutrition 	<ul style="list-style-type: none"> - Organism - Variation - Classification - Vertebrates - Invertebrates - Reptile - Bird - Mammal - Amphibian - Fish - Global/Local - Endangered - Wildlife - Extinct - Conservation

Year 5		
Topic: Forces Can you Feel the Force? Physics	Topic: Earth and Space What is special about the Earth and Beyond? Physics	Topic: Living things and their habitats What is the Circle of Life? Biology
<ul style="list-style-type: none"> - Gravity - Air resistance - Force - Water resistance - Surface - Mechanism - Newton - Friction - Attract - Repel - Direction 	<ul style="list-style-type: none"> - Orbit - Solar System - Astronomical - Planet - Rotation - Spherical - Crescent moon - Gibbous moon - Eclipse - Lunar 	<ul style="list-style-type: none"> - Asexual reproduction - Fertilise - Gestation - Life cycle - Metamorphosis - Pollination - Reproduction - Sexual reproduction
Topic: Animals including humans Reproduction in Plants and Animals Biology	Topic: Everyday materials How can we sort everyday materials? Chemistry	Topic: Everyday materials Marvellous Mixtures and All Change! Chemistry
<ul style="list-style-type: none"> - Asexual reproduction - Fertilise - Gestation - Life cycle - Metamorphosis - Pollination - Reproduction - Sexual reproduction 	<ul style="list-style-type: none"> - Conductor - Insulator - Transparency - Solid/Liquid/Gases - Melting/Freezing - Evaporating - Conductivity - Particles - State 	<ul style="list-style-type: none"> - Solubility - Conductivity - Transparency - Thermal evaporation - Dissolve - Bicarbonate of soda - Thermal - Filtering - Melting - Separate

Year 6		
Topic: Evolution and inheritance Do living things change over time? Biology	Topic: Electricity Danger! Low Voltage! Physics	Topic: Animals including humans How does our body move things around? Biology
<ul style="list-style-type: none"> - Sedimentary rocks - Fossil - Palaeontology - Coprolites - Species - Offspring - Gene - Generation - Inherit - Mutation - Extinct - Evolution - Adaption - Natural selection 	<ul style="list-style-type: none"> - Conductor - Insulator - Socket - Series circuits - Cells - Volts - Generator - Turbine - Fuses - Thomas Edison 	<ul style="list-style-type: none"> - Blood vessels - Drugs - Atriums - William Harvey - Cardiovascular - Ultrasound - Cardiologists - Capillaries - Pulse - Ventricles
Topic: Animals including humans What is Body Health? Biology	Topic: Living things and their habitats What's in nature's library? Biology	Topic: Light Can you light up your world? Physics
<ul style="list-style-type: none"> - Diet - Exercise - Substances - Nutrients - Drug - Alcohol - Pulse - Basal metabolic rate - Energy - Balanced 	<ul style="list-style-type: none"> - micro-organism - vertebrates - invertebrates - species - fungi - Monera - bacteria - Protista - algae - Carl Linnaeus 	<ul style="list-style-type: none"> - Light wave - Light source - Concave - Convex - Filters - Lens - Retina - Cornea - Iris