

St Teresa's Catholic Primary School



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Science progression of Knowledge, Skills and Vocabulary

Strands of progression to be identified through colour coding:

Biology – Highlighted Green

Chemistry – Highlighted Blue

Physics – Highlighted Red

Core Knowledge/Trends

Core knowledge:

To be able to identify, explain and understand key aspects of each topic.

Each topic has a range of learning objectives, it is important that every student is able to identify, explain and show an understanding before moving onto the next stage of learning.

Year 1/2 Cycle A

<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
Living Things (Unit 1)	Materials (Unit 1)	Plants  (Unit 2)		Animals Including Humans  (Unit 1)	
End Point: To describe different habitats and explain how they provide for things living there.	End Point: Identify everyday materials and their properties.	End Point: To understand how plants grow and stay healthy.		End Point: To group animals according to their animal group and what they eat.	

Key Vocabulary		Key Vocabulary		Key Vocabulary		Key Vocabulary	
Life-Processes Living Dead Never living Food chain Food sources Habitat Microhabitat Depend Survive	Arctic Desert Ocean River Mountain Flowers Cycle Woodland Urban Coastal Rainforest	Object Material Hard Soft Stretch Shiny Dull Rough Plastic Wood Metal water	Glass Smooth Bendy Waterproof Absorbent Transparent opaque	Germinate Spout Shoot Seed-dispersal Soaks Leaves Bulb Flowers Fruits Dies Bean	Sunlight Water Conditions Temperature Nutrition Nourishment Lifecyle	Amphibians Birds Fish Mammals Reptiles Carnivore Herbivore Omnivore Breathe Gills Scales Beak Feathers Senses Sight Hearing Touch Taste Smell	Brain Tongue Head Ear Mouth Shoulder Hand Finger Leg Foot Toes Knee Thumb Elbow Teeth Nose eye
Learning Objectives		Learning Objectives		Learning Objectives		Learning Objectives	

<p>-I can classify things by living, dead or never lived.</p> <p>-I can understand what a habitat is and name some.</p> <p>-I can show an understanding of how a specific habitat provides the basic needs of things living there</p> <p>-I can match living things to their habitats</p> <p>-I can name some different sources of food for animals</p> <p>-I can explain a simple food chain</p>	<p>-I can identify and name a variety of everyday materials</p> <p>-I can distinguish between an object and the material from which it is made</p> <p>-I can describe the physical properties of a variety of everyday materials</p> <p>-I can compare everyday materials</p> <p>-I can order everyday materials on the basis of their simple physical properties</p>	<p>-I can explain where plants come from</p> <p>-I can explain the difference between a bulb and a seed</p> <p>-I can explain the lifecycle of a plant</p> <p>-I can show an understanding of what plants need in order to grow and stay healthy</p> <p>-I can understand that different plants require different climates</p>	<p>-I can identify, name and label the basic parts of the human body and explain which part goes with which sense</p> <p>-Identify and name a variety of common animals, including fish, amphibians, reptiles, birds and mammals</p> <p>-I can describe and compare the structure of a variety of common animals</p> <p>-I can explain the difference between a carnivore, herbivore and an omnivore</p> <p>-I can identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p>
<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>

<p>-Classify or group things according to a given criteria</p> <p>-Draw conclusions and explain what has been found out</p>	<p>-Set up a test to see which materials keep things warmest, and explain what has been learned.</p> <p>-Explain to someone else what has been learned through an investigation</p> <p>-Measurement (within Year 1-2 limits) to help find out more information about materials</p>	<p>Ask questions such as:</p> <ul style="list-style-type: none"> - Why do some trees lose their leaves in Autumn and others do not? - How long are tree roots? <p>-Use equipment such as thermometers or rain gauges</p> <p>-Set up investigations/fair tests</p> <p>-Classify or group plants/trees into a given criteria</p>	<p>Ask questions such as:</p> <ul style="list-style-type: none"> - Why do some animals eat meat and some do not? - Why are some animals pets and other are not?
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Year 1/2 Cycle B

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
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Plants (Unit 1)		Materials (Unit 2)		Animals Including Humans (Unit 2)		Seasons (Earth and Space Unit 1)		Living Things (Unit 2)	
End Point: To identify parts of a plant.		End Point: To know some properties of materials and how they can be changed.		End Point: To understand how animals including humans grow and change.		End Point: To understand the changes through seasons.		End Point: To understand that animals can be grouped together based on different qualities.	
Key Vocabulary		Key Vocabulary		Key Vocabulary		Key Vocabulary		Key Vocabulary	
Root Stem Leaves Petals Bud Flower Garden Tree Plant	Acorn Conker Harvest Trunk Blossom Spring Deciduous Evergreen	Materials Suitability Properties Purpose Squash Bend Twist Stretch Pulling Turning opposite	Direction Hard soft Stiff Strong flexible Opaque Transparent Natural Man-made	Adult Offspring Develop Life cycle Young Baby Toddler Child Teenager Frogspawn Tadpole Froglet Diet Disease	Exercise Germs Hygiene Nutrition Pulse Air Food Water Fruit Vegetable Protein Fats carbohydrates	Spring Summer Autumn winter Warmer Colder Change Leaves Frost Snow Ice New life	Wild plants Garden plants Brambles Sunflower Evergreen Horse- chestnut Oak	Life processes Dead Living Never alive Plants Animals Vertebrates Invertebrates Mammals Fish Birds Reptiles Grouping	Environment Dangers Flooding Fires Drought
Learning Objectives		Learning Objectives		Learning Objectives		Learning Objectives		Learning Objectives	

<p>-I can identify and name a variety of common, wild and garden plants.</p> <p>-I can identify and name the petals, stem, leaves, and roots</p> <p>-I can identify and name the roots, trunk, branches and leaves on a tree</p> <p>-Autumn watch (Autumn foods)</p> <p>-Spring watch (Spring foods)</p>	<p>-I can identify and compare the suitability of a variety of everyday materials including; wood, metal, plastic, glass, brick, rock, paper and cardboard</p> <p>-I can show an understanding that materials can be changed by squashing, bending, twisting and stretching</p> <p>-I can compare the use of materials</p> <p>-I can compare the movement of materials on different surfaces</p> <p>-I can show an understanding of natural and man-made materials</p>	<p>-I can show an understanding of animals including humans and their offspring</p> <p>-I can identify the basic stages in a life cycle</p> <p>-I can find out and describe the basic needs of animals, including humans, for survival</p> <p>-I can show an understanding as to why exercise and a balanced diet are important for humans</p> <p>-I can show understanding of why hygiene is important</p>	<p>- I can identify and name the four different seasons and observe the changes over them.</p> <p>-I can observe and describe weather associated with the seasons</p> <p>-I can explain how the four seasons affect our world</p> <p>-I can explain how the seasons affect the length of the day</p>	<p>-I can explain the seven life processes and how they are used to reason whether an object is living, dead or never lived.</p> <p>-I can group living things into different categories</p> <p>-I can use a classification key to group living things</p> <p>-I can explain some environmental changes that can have an effect on living things</p>

Key Skills	Key Skills	Key Skills	Key Skills	Key Skills
<p>Ask questions such as:</p> <ul style="list-style-type: none"> -Why are flowers different colours? -Which flowers/plants are in my garden? 	<ul style="list-style-type: none"> -Classify or group things according to a given criteria -Know how to set up a fair test/experiment -Give conclusions to a test -Use measurements (within year 1-2 limits) 	<ul style="list-style-type: none"> -Classify or group things according to a given criteria -Know how to set up a fair test -Draw conclusions from tests and explain what has been found 	<ul style="list-style-type: none"> -Explain findings of observations effectively 	<ul style="list-style-type: none"> -Classify or group animals according to a given criteria -Explain findings of observations

Year 3/4 Cycle A

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2						
Materials (Unit 3)	Animals including Humans (Y3 objectives) (Unit 3)	Sound (Unit 1/2)	Plants (Unit 3)	Electricity (Unit 1)	Electricity (Unit 2)						
End Point: To identify solids, liquids and gases and explain how materials can change state	End Point: To understand a balanced diet and how it can affect the muscular system	End Point: To understand how sound is made and how it travels	End Point: To understand the life cycle and the function of plants/flowers	End Point: To understand electricity and how it is used	End Point: To know the components of a circuit and how electricity flows through a circuit						
Vocabulary	Vocabulary	Vocabulary	Vocabulary	Vocabulary	Vocabulary						
States of matter Solids Liquids Gases Water Vapour Freezing Melting particles	Melt Freeze Evaporate Condense Precipitation Cycle Heats Rapidly slowly	Healthy Nutrients Energy Saturated Unsaturated Carbohydrates Protein Fibre Fats vitamins	Minerals Water Energy Digest Vertebrate Invertebrate Muscles Tendons Joints skeleton	Vibration Sound Wave Volume Amplitude Pitch Loud Quiet High-pitch Low-pitch	Faster Slower Ear Particles Distance Soundproof Absorb Vacuum eardrum	Stamen Carpel Ovule Sepal Water Light Nutrients Air Growth evaporate	Pollen Fertilisation Dispersal Transport Pollination Root Stem Leaves Petal	Pylons Cables Substations Switches Appliances Devices Appliances Hazards Plug socket	Circuit Components Battery Bulbs Cell battery	Circuit Insulator Conductor Series Electrical Test Fair Cell Battery wire	Bulb Complete Incomplete Socket Switches Buzzer
Learning Objectives: -I can describe and explain what a solid, liquid and gas are, and their properties	Learning objectives: -I can show an understanding of the importance of a nutritious and balanced diet -I can compare the different diets required for different animals	Learning Objectives: -I can show an understanding of how sound is made, and how vibrations affect the volume -I can explain how sound travels and how we hear it	Learning Objectives: - identify and describe the functions of different parts of flowers/plants	Learning Objectives: -I can explain what electricity is and what it is used for -I can identify common appliances that run on electricity and some of the dangers	Learning Objectives: -I can identify and name the components in a series circuit						

<p>-I can compare and group materials together according to whether they are solids, liquids or gases</p> <p>-I can explain how some materials can change state when they are heated or cooled</p> <p>-I can explore how the temperature affects the rate of change</p> <p>-I can explain the water cycle through evaporation and condensation</p>	<p>-I can show an understanding of the human body</p> <p>-I can show an understanding of the skeletal system in a human</p> <p>-I can show and understanding of the muscular system in a human</p>	<p>-I can explain what happens to sound as it travels further away from its source</p> <p>-I can show which instruments make the highest/lowest sound</p> <p>-I can show an understanding of how sound is measured</p>	<p>-I can explain the requirements of plants for life and growth</p> <p>-I can describe how water is transported within plants</p> <p>-I can explore the part that flowers play in the life cycle, including pollination</p> <p>-I can explain seed dispersal and its role in the life cycle</p>	<p>-I can research what life was like before electricity (compare and contrast)</p> <p>-I can construct a simple circuit</p>	<p>-I can predict and test whether a lamp will light within a circuit</p> <p>-I can understand the role of a switch</p> <p>-I can show an understanding of conductors and insulators; giving examples</p> <p>-I can research different materials to find the most effective conductors and insulators</p>
<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	
<p>-Gather and record information using: - charts -graphs -matrix Depending on suitability</p> <p>Use bar charts to record findings (in line with year 3-4 maths)</p>	<p>-Gather and record information using: - charts -graphs -matrix Depending on suitability</p> <p>-Know how to use a key to help understand information presented</p>	<p>-Gather and record information using: - charts -graphs -matrix Depending on suitability</p> <p>-Present findings using written explanations and diagrams when needed</p>	<p>-Gather and record information using: - charts -graphs -matrix Depending on suitability</p> <p>-Present findings using written explanations and diagrams when needed</p>	<p>-Classify and group materials according to a given criteria</p> <p>-Set up a fair test with more than one variable</p> <p>- Gather and record information using: - charts -graphs -matrix Depending on suitability</p>	

<p>-Present findings using written explanations and diagrams when needed</p> <p>-Set up fair tests with more than one variable</p> <p>-Draw conclusions of tests, explaining what happened and why</p> <p>-Measurement (in line with year 3-4 measurements)</p> <p>Explain to others why a test is fair</p>	<p>-Present findings using written explanations and diagrams when needed</p> <p>-Make sense of findings and draw conclusions which help to understand the scientific information</p> <p>-Amend predictions according to findings</p>	<p>-Set up a fair test with more than one variable</p> <p>Write up findings using a planning, doing and evaluating process</p> <p>-Explain to others why a test that is set up is a fair one</p>	<p>-Make sense of any findings and draw conclusions making sense of the scientific information</p> <p>-Amend predictions based on findings</p> <p>-Be prepared to change ideas as a result of findings</p>	<p>-Present findings using written explanations and diagrams when needed</p> <p>Write up findings using a planning, doing and evaluating process</p> <p>-Explain to others why a test that is set up is a fair one</p> <p>-Make sense of any findings and draw conclusions making sense of the scientific information</p> <p>-Amend predictions based on findings</p> <p>-Be prepared to change ideas as a result of findings</p>
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Year 3/4 Cycle B

Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
Rocks (Earth and Space Unit 2)		Animals including humans (Unit 4)		Living things and their habitat (Environments)		Light (Unit 1)		Forces and Motion (Unit 1)		Forces and Motion (Unit 2)	
End Point: To identify the different rock types and understand how fossils are formed		End Point: To know why we need food and how the body digests it		End Point: To know how to classify living things in different ways		End Point: To know how light travels and how we see things		End Point: -To understand what friction is and how it works on different surfaces -To understand how magnets attract or repel			
Vocabulary		Vocabulary		Vocabulary		Vocabulary		Vocabulary			
Igneous Sedimentary Metamorphic Magma Lava Sediment Permeable Impermeable Fossilization	Palaeontology Soil Minerals Organic Topsoil Subsoil Base rock Permeates erosion	Digest Oesophagus Stomach Intestine Rectum Tongue Teeth Moth Salivary gland Liver bladder	Pancreas Canine Molar Premolar Incisor Herbivore Carnivore Omnivore Energy Prey Predator producer	Habitat Environment Endangered Extinct Movement Natural Man-made dangerous	Nutrition Respiration Key classification	Light Source Dark Reflection Reflect Reflective Ray Wave Object Mirror	Smooth Pupil Retina Shadow Opaque Translucent Transparent Shiny rough	Forces Push Pull Magnetism Gravity Friction Acceleration Surface Magnet magnetic	Magnetic field Poles Repel Attract		
Learning Objectives: -I can compare and group rocks based on their physical appearance and properties		Learning Objectives: -I can identify and name the parts of the human digestive system		Learning Objectives: -I can identify the characteristics of living things		Learning Objectives: -I can understand what light is and that it comes from a source		Learning Objectives: I can understand and describe how objects move on different surfaces I can explain how some forces requires contact and some do not, giving examples			

<p>-I can explain the difference between sedimentary, metamorphic and igneous rocks</p> <p>-I can use research to find out the main differences between sedimentary, metamorphic and igneous rocks</p> <p>I can explain the rock cycle</p> <p>I can explain how fossils are formed</p>	<p>-I can show an understanding of the functions of the organs in the human digestive system</p> <p>-I can research the different times it takes for food to digest</p> <p>-I can identify the different types of human teeth</p> <p>-I can understand the functions and structure of different human teeth</p> <p>-I can understand that certain foods and drinks can damage teeth</p> <p>-I can use and construct a food chain, identifying predators, producers and prey</p>	<p>-I can recognise that living things can be grouped in a variety of ways</p> <p>-I can use classification keys to help group, identify and name a variety of living things in their local and wider environment</p> <p>-I can show an understanding of how changes to an environment could endanger living things</p>	<p>-I can explain that light is reflected and some surfaces are better than others</p> <p>-I can show an understanding of the dangers of direct sunlight</p> <p>-I can demonstrate how shadows are formed and explain how they can change</p> <p>-Research how reflections help us see around corners</p> <p>-</p>	<p>I can explain that some objects require a pulling motion and some require a pushing motion</p> <p>I can investigate whether certain objects sink or float based on their characteristics</p> <p>I can observe how magnets attract or repel each other and attract some materials but not others</p> <p>I can predict whether magnets will attract or repel each other</p> <p>I can show an understanding of the earth's magnetic field and explain what it is</p>
<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>
<p>--Gather and record information using:</p> <ul style="list-style-type: none"> - charts -graphs -matrix <p>Depending on suitability</p>	<p>-Classify and group materials according to a given criteria</p> <p>-Gather and record information using:</p>	<p>-Classify and group materials according to a given criteria</p> <p>-Understand and use a classification key</p>	<p>--Gather and record information using:</p> <ul style="list-style-type: none"> - charts -graphs -matrix <p>Depending on suitability</p>	<p>--Gather and record information using:</p> <ul style="list-style-type: none"> - charts -graphs -matrix <p>Depending on suitability</p>

<p>-Present findings using written explanations and diagrams when needed</p> <p>-Make sense of any findings and draw conclusions making sense of the scientific information</p> <p>-Amend predictions according to findings</p> <p>-Be prepared to change ideas as a result of what has been found out during scientific enquiry</p>	<p>- charts -graphs -matrix Depending on suitability</p> <p>-</p>	<p>-Gather and record information using: - charts -graphs -matrix Depending on suitability</p> <p>-Present findings using written explanations and diagrams when needed</p>	<p>Use bar charts and other statistical tables (in line with year 3-4 maths)</p> <p>-Set up a fair test with more than one variable</p> <p>-Present findings using written explanations and diagrams</p> <p>-Make sense of findings and draw conclusions which help to make sense of the scientific information</p> <p>Amend predictions according to findings</p>	<p>Use bar charts and other statistical tables (in line with year 3-4 maths)</p> <p>-Use a key to understand information in a chart/graph</p> <p>-Present findings using written explanations and diagrams</p> <p>-Make sense of findings and draw conclusions which help to make sense of the scientific information</p> <p>Amend predictions according to findings</p> <p>Measurement (in line with year 3-4 maths)</p>
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Year 5/6 Cycle A

Autumn 1		Autumn 2		Spring 1	Spring 2	Summer 1	Summer 2	
Electricity (Unit 3)		Light (Unit 3)		Evolution and Inheritance (Evolution)	Evolution and Inheritance	Living Things (Y5 Objectives) (Unit3)	Animals including humans (Unit 5)	
End Point: Understand and draw the key components in a circuit		End Point: Explain how light travels and how refraction happens		End Point: Show a clear understanding about evolution and explain what it is		End Point: To know how plants and animals reproduce	End Point: To know how the human body changes from conception to death	
Vocabulary		Vocabulary		Vocabulary		Vocabulary	Vocabulary	
Circuit Symbol Cell Battery Wires Amps Voltage Resistance Electrons	Components Lamp Motor Buzzer Switch	Light Source Reflection Incident ray Reflected ray Energy Wave Surface bounced	Refraction Visible Transparent Separating Spectrum Prism Shadow Colours Rainbow cast	Offspring Inheritance Variations Characteristics Adaptations Habitat Environment similar	Identical Adaptive traits Inherited traits Reproduction Fossils	Asexual Sexual Reproduction Fertilise Gestation Life cycle Metamorphosis Pollination Reproduction	Pregnancy Dependent Similar DNA Offspring Cycle Fertilisation Prenatal Infancy Childhood Adolescence Adulthood Middle age Gestation Reproduce Asexual	Sexual Life cycle Foetus Womb Gestation puberty
Learning Objectives: -I can recognise and draw scientific circuit symbols -I can observe and explain the effects of differing voltage in a circuit		Learning Objectives: -I can explain how light travels -I can demonstrate how we see objects		Learning Objectives: -I can show an understanding of how the earth and living things have changed over time -I can explain how fossils can be used to find out about the past		Learning Objectives: -I can show an understanding of the reproduction process in plants -I can identify the life cycle of different living things		Learning Objectives: I can describe the gestation period and how animals have different gestation periods

<p>-I can plan and conduct an experiment for resistance in circuit</p> <p>I can show an understanding of different types of electricity</p> <p>I can research different types of electricity</p>	<p>-I can explain how the eye works</p> <p>-I can investigate how shadows are formed</p> <p>-I can explain and demonstrate why shadows have the same shape as the object that casts them</p>	<p>-I can show an understanding of reproduction and offspring</p> <p>-I can explain how animals and plants adapt to suit their environments</p> <p>-I can show a clear understanding of evolution</p>	<p>I can explain the difference between life cycles</p> <p>I can show an understanding of the process of reproduction in animals</p>	<p>I can show an understanding of early childhood development</p> <p>I can describe the changes as humans develop from birth to old age (puberty)</p> <p>I can explain the main changes to the human body as we get old</p> <p>I can create a timeline to indicate stages of growth in humans</p>
<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>
<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>-Use a range of written methods to report findings, including the planning, doing and evaluating process</p> <p>-To be clear about what has been found out during investigation and</p>	<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>-Use a range of written methods to report findings, including the planning, doing and evaluating process</p> <p>-Set up a fair test when needed (example: does the time of day impact the shadow?)</p>	<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>-Use a range of written methods to report findings</p> <p>-Support conclusions with evidence</p> <p>-Use diagrams when necessary to support writing and be able to present to others</p> <p>-Record data in charts, graphs and tables (in line with year 5-6 maths)</p>	<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>-Use diagrams when necessary to support writing and be able to present to others</p> <p>-Record data in charts, graphs and tables (in line with year 5-6 maths)</p>	<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>-Use diagrams when necessary to support writing and be able to present to others</p> <p>-Present information in a variety of ways including I.C.T.</p>

<p>relate this to other people</p> <p>-Use diagrams when necessary to support writing and be able to present to others</p> <p>-Record data in charts, graphs and tables (in line with year 5-6 maths)</p> <p>Make accurate predictions based on information from investigations</p> <p>-Explanations to be set out clearly, explaining why something has happened</p>	<p>-Use diagrams when necessary to support writing and be able to present to others</p> <p>-Record data in charts, graphs and tables (in line with year 5-6 maths)</p> <p>-Carry out research</p> <p>Know what the variables are during investigation and isolate one</p> <p>-Support conclusions with evidence</p>		<p>To use diagrams, as and when necessary, to support writing</p> <p>-</p>	<p>-Record data in charts, graphs and tables etc. (in line with year 5-6 maths)</p> <p>-Be evaluative when explaining findings from scientific enquiry</p>
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Year 5/6 Cycle B

Autumn 1		Autumn 2		Spring 1	Spring 2	Summer 1		Summer 2	
Earth and Space (Unit 3)		Forces and Motion (Unit 3)		Materials		Living Things (Unit 4)		Animals Including humans (Unit 6)	
End Point: To know about the different bodies of the solar system and their movements relative to the sun		End point: To understand the forces around us and how they affect us		End point: To know the properties of everyday materials. To know the difference between reversible and irreversible reactions.		End Point: To understand and demonstrate how to classify living things into broad groups according to observable characteristics and based on similarities and differences		End Point: To understand and explain the functions of the heart and how to keep it healthy	
Vocabulary		Vocabulary		Vocabulary		Vocabulary		Vocabulary	
Sun Star Moon Planet Sphere Spherical Bodies Satellite Mercury Venus Earth Orbit axis	Mars Jupiter Saturn Uranus Neptune Pluto Dwarf planet Rock Gas Metal Core Celestial Rotate	Forces Gravity Earth Gravitational Weight Mass	Newtons Friction Resistance Water Buoyancy	Cycle Materials Solids Liquids Gases Melting Freezing Evaporating Filtering Dissolving Reversing irreversible	Condensing Conductivity Flexibility Hardness Insulators Magnetism Solubility Thermal Transparency Sieving Casein	Characteristics Classify Classification Bacteria Microscope Species yeast	Cells Nucleus colony	Circulatory Heart Blood Vessels Oxygen Pumps Lungs Organs Capillaries Exchange Nutrients Carbon dioxide	Arteries Drug Alcohol Plasma Blood cells Protein Exercise
Learning Objectives: -I can explain the different bodies that		Learning Objectives: -I can explain what gravity is and its impact on our lives (Isaac Newton)		Learning Objectives: -I can explain the water cycle and the roles of evaporation and condensation		Learning Objectives: I can classify living things into broad groups according to observable characteristics		Learning Objectives: -I can identify and name the main parts of the	

<p>make up our solar system</p> <p>I can describe and explain the movements of the earth and other planets (causing seasons), relative to the sun</p> <p>-I can understand and demonstrate how day and night are created</p> <p>-I can explain the movement of the moon relative to the sun</p> <p>I can show an understanding of other objects in space (satellites, asteroids, meteors, comets)</p> <p>I can research the role of space travel</p>	<p>-I can identify and know the effect of air and water resistance</p> <p>-I can identify and know the effect of friction</p> <p>-I can explain how levers, pulleys and gears allow smaller force to have a greater effect</p>	<p>-I can identify and understand what soluble and insoluble materials are</p> <p>-I can explain how a material dissolves to form a solution</p> <p>-I can show how to recover a substance from a solution</p> <p>-I can compare and group materials based on their properties (hardness, solubility, transparency, conductivity)</p> <p>-I can demonstrate how some materials can be separated (filtering, sieving, evaporating)</p> <p>I can explain and demonstrate that some changes are reversible and some are irreversible</p> <p>-I can show an understanding that some changes result in the formation of a new material, and this is usually irreversible</p>	<p>-I can demonstrate how to classify living things</p> <p>-I can create a classification key</p> <p>-I can show an understanding of cells and microorganisms</p> <p>I can explain how some microorganisms are helpful and some are harmful</p>	<p>human circulatory system</p> <p>I can explain the function of the heart, blood vessels and blood</p> <p>I can investigate the changes to a pulse rate</p> <p>-I can show an understanding of the impact of diet, exercise, drugs and lifestyle have on health</p> <p>-I can explain how nutrients and water is transported in animals including humans</p>
<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>	<p>Key Skills</p>
<p>-Able to present information related to scientific enquiries in a range of ways (including IT)</p>	<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>-Set up a fair test</p>	<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>Be evaluative when explaining findings from scientific enquiry</p>	<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>-Use diagrams when necessary to support writing</p>	<p>-Keep an ongoing record of scientific words that they have come across for the first time</p> <p>-To know which type of investigation is needed</p>

<p>-Use diagrams, as and when necessary, to support writing</p> <p>-Explanations set out clearly, explaining why or how something has happened</p> <p>-Record data in charts, graphs and tables (in line with year 5-6 maths)</p>	<p>--Use diagrams when necessary to support writing and be able to present to others</p> <p>- Use measurement effectively (In line with year 5-6 maths) capacity and mass</p> <p>Be evaluative when explaining findings from scientific enquiry</p> <p>-Make predictions based on information from previous investigations</p> <p>-Create new investigations taking into account what has previously been learned</p>	<p>-Be clear about what has been found out during enquiry and relate it to other findings</p> <p>Use measurement effectively (In line with year 5-6 maths)</p> <p>-Use diagrams when necessary to support writing and be able to present to others</p>	<p>and be able to present to others</p> <p>-Carry out research when investigating a scientific theory</p> <p>Be evaluative when explaining findings from scientific enquiry</p>	<p>to suit particular scientific enquiry (for example: looking at pulse and exercise)</p> <p>-Use a range of written methods to report findings</p> <p>--Use diagrams when necessary to support writing and be able to present to others</p> <p>-Be clear about what has been found out during enquiry and relate it to other findings</p> <p>- Use measurement effectively (In line with year 5-6 maths) capacity and mass</p>
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Unit Progression

Year Group Taught in	Living Things	Animals Including Humans	Plants	Materials	Forces and Motion	Earth and Space	Electricity	Sounds	Light
Year 1 ↓	Unit 1	Unit 1	Unit 1	Unit 1					
Year 2 ↓	Unit 2	Unit 2	Unit 2	Unit 2		(Seasons) Unit 1			
Year 3 ↓		Unit 3	Unit 3	Unit 3			Unit 1&2	Unit 1&2	
Year 4 ↓		Unit 4			(Unit 1&2)	(rocks) Unit 2	↓	↓	Unit 1
Year 5 ↓	Unit 3	Unit 5			(Unit 3)			Unit 3	Unit 2
Year 6	Unit 4	Unit 6		Unit 4		Unit 3			