



Science Overview 2022-23

	Term 1 Identity and Social Justice	Term 2 Power, Leadership and Invasion	Term 3 Sustainability and the Impact on our World
	Nursery		
Unit Title/Enquiry	Topic Title: I wonder... What makes me wonderful?	Topic Title: I wonder... What Adventure Awaits?	Topic Title: I wonder... What might I find down on the farm?
Unit Overview	In this unit children will learn more about themselves and who they are as a unique individual.	<i>See the history and geography overview.</i>	In this unit children will develop the understand of the world. They will be shown and explain the concepts of growth, change and decay with natural materials. Through the unit Food and Farming, children will explore where food comes from such as fruit and vegetables growing in and above the ground and animal produce. Suggestions include: <ul style="list-style-type: none"> • plant seeds and bulbs so children observe growth and decay over time • observe an apple core going brown and mouldy over time • help children to care for animals and take part in first-hand scientific explorations of animal life cycles, such as caterpillars or chick eggs. Teachers will plan and introduce new vocabulary related to the exploration. Children will be encouraged to use it within their discussions, as they care for living things.
Prior Knowledge	0-3 DM Explore and respond to different natural phenomena within settings / at home or on day trips. Explore materials with different properties. Explore natural materials.	0-3 DM Repeat actions that have an effect	0-3 DM Understand and explore different plants and animals
Future Links to this Unit	Reception – Term 1	Reception – Term 2	Reception – Term 3
New Knowledge	Understanding the World Use all their senses in hands-on exploration of natural materials both inside and outside. Explore collections of materials with similar and/or different properties. Talk about the differences between materials and changes they notice (ice melting).	Understanding the World Explore how things work. Explore and talk about different forces they can feel (introduce magnets and look at how they work).	Understanding the World 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.
Communication and Language	Develop their communication but may continue to have problems with irregular tenses and plurals, such as ‘runned’ for ‘ran’, ‘swimmed’ for ‘swam’.	Be able to express a point of view and to debate when they disagree with an adult or a friend, using words as well as actions.	Use a wider range of vocabulary. Understand a question or instruction that has two parts, such as: “Get your coat and wait at the door”.

	<p>Develop their pronunciation but may have problems saying:</p> <ul style="list-style-type: none"> • some sounds: r, j, th, ch, and sh • multi-syllabic words such as 'pterodactyl', 'planetarium' or 'hippopotamus'. <p>Children may use ungrammatical forms like 'I swimmied'. Instead of correcting them, recast what the child said. For example: "How lovely that you swam in the sea on holiday".</p> <p>When children have difficulties with correct pronunciation, reply naturally to what they say. Pronounce the word correctly so they hear the correct model.</p> <p>Use longer sentences of four to six words.</p> <p>Sing a large repertoire of songs.</p> <p>Know many rhymes, be able to talk about familiar books, and be able to tell a long story. Enjoy listening to longer stories and can remember much of what happens.</p> <p>Pay attention to more than one thing at a time, which can be difficult.</p>	<p>Start a conversation with an adult or a friend and continue it for many turns.</p> <p>Use talk to organise themselves and their play: "Let's go on a bus... you sit there... I'll be the driver."</p> <p>Sing a large repertoire of songs.</p> <p>Know many rhymes, be able to talk about familiar books, and be able to tell a long story.</p> <p>Enjoy listening to longer stories and can remember much of what happens.</p> <p>Pay attention to more than one thing at a time, which can be difficult.</p>	<p>Understand 'why' questions, like: "Why do you think the caterpillar got so fat?"</p> <p>Sing a large repertoire of songs.</p> <p>Know many rhymes, be able to talk about familiar books, and be able to tell a long story.</p> <p>Enjoy listening to longer stories and can remember much of what happens. Pay attention to more than one thing at a time, which can be difficult.</p>
Significant People or Places	<p>The home Outdoor Environment Forest School Nursery Classroom</p>		
Additional Experiences	<p>Forest Fridays Melting / Freezing experiments</p>	<p>Egg Hatching Caterpillar to Butterfly experience</p>	
Career Links	<p>Teacher Scientist Forest School Leader</p>	<p>Engineer Builder</p>	<p>Gardener Farmer Vet</p>
Reception			
Unit Title/Enquiry	Topic Title: I wonder... All about the wider world	Topic Title: I wonder... Who helps us?	Topic Title: I Wonder... What might we find at the bottom of the garden?
Unit Overview	<p>This unit builds upon early understanding of self, family and children's own home from Nursery.</p>	<p>Children will learn 'rules' that we have to keep us healthy in body and mind. They will delve deeper into different occupations and look at the people within our community that keep us safe such as: police officers, doctors, fire fighters and teachers.</p>	<p>Children will also build upon previous knowledge where they cared for living creatures in Nursery. They will look further about the types of animals living in our gardens and what we can do to help protect them; looking at their environment and what conditions they need to survive.</p>

			Children will explore the seasons throughout the year building about some of their previous learning on growing and farming to consider what environment different things need to grow well.
Prior Knowledge	Nursery – Term 1 Hands on exploration of the natural world	Nursery – Term 2 Exploring and talking about forces	Nursery – Term 3 Caring for animals
Future Links to this Unit			
New Knowledge	Explore the natural world around them. Encourage interactions with the outdoors to foster curiosity and give children freedom to touch, smell and hear the natural world around them during hands-on experiences. Recognise some environments that are different from the one in which they live.	Observe and interact with natural processes, such as sound causing a vibration, light travelling through transparent material, an object casting a shadow, a magnet attracting an object and a boat floating on water.	Create opportunities to discuss how we care for the natural world around us. After close observation, draw pictures of the natural world, including animals and plants. Understand the effect of changing seasons on the natural world around them.
Communication and Language	<p>Understand how to listen carefully and why listening is important.</p> <p>Learn new vocabulary.</p> <p>Use new vocabulary through the day</p> <p>Ask questions to find out more and to check they understand what has been said to them.</p> <p>Articulate their ideas and thoughts in well-formed sentences.</p> <p>Connect one idea or action to another using a range of connectives.</p> <p>Describe events in some detail.</p> <p>Develop social phrases.</p> <p>Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.</p> <p>Engage in story times.</p> <p>Engage in non-fiction books.</p> <p>Learn rhymes, poems and songs.</p> <p>Listen carefully to rhymes and songs, paying attention to how they sound.</p> <p>Listen to and talk about stories to build familiarity and understanding.</p> <p>Use new vocabulary in different contexts.</p> <p>Retell the story, once they have developed a deep familiarity with the text, some as exact repetition and some in their own words</p> <p>Listen to and talk about selected non-fiction to develop a deep familiarity with new knowledge and vocabulary.</p>		
Significant People or Places	<p>The home</p> <p>Outdoor Environment</p> <p>Forest School</p> <p>Nursery Classroom</p>		
Additional Experiences	Forest School Sessions	Scientific experiments – floating and sinking	Trip to the Yorkshire Wildlife Park
Career Links	Forest school leader Teacher	Scientist Sailor	Vet Zoologist Conservationist

Unit Title/Enquiry	Where do I live? What is it like where we live and how has it changed?	Who sets our rules? Why do we have a King or Queen?	What is the impact of pollution on our oceans and seas and how can we make a difference?
National Curriculum Link	<p>Everyday materials Pupils should be taught to:</p> <ul style="list-style-type: none"> - distinguish between an object and the material from which it is made - identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock - describe the simple physical properties of a variety of everyday materials - compare and group together a variety of everyday materials on the basis of their simple physical properties 	<p>Animals, including humans Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals - identify and name a variety of common animals that are carnivores, herbivores and omnivores - describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) - identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense <p>Seasonal changes Pupils should be taught to:</p> <ul style="list-style-type: none"> - observe changes across the 4 seasons - observe and describe weather associated with the seasons and how day length varies 	<p>Plants Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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
Unit Overview	In this unit, children will build upon their learning of their own homes in Reception.	In this unit, children will develop their understanding of people who make the rules and are the rulers of the country.	In this unit, the children will learn about different types of pollution, especially the impact of pollution in our oceans and seas.
Prior Knowledge	Reception, term 3, Seasonal change	Year 1, term 1 – Seasonal change	Reception, term 3 – Caring for animals
Future Links to this Unit	Year 2, term 1 – Everyday materials Year 4, term 2 – states of matter Year 5, term 2 – changing properties	Year 2, term 3 – Plants Year 3, term 2 – plants	Year 2, term 3 – animals including humans Year 4, term 2 - animals including humans Year 5, term 3 - animals including humans Year 6, term 1 – animals including humans
New Knowledge	To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock To distinguish between an object and the material from which it is made	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) Identify and name a variety of common animals that are carnivores, herbivores and omnivores Identify, name, draw and label basic parts of the human body and say which part of the body is associated with each sense Observe changes across the four seasons.	Identify and describe the basic structure of a variety of common flowering plants, including trees. Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.

		Observe changes across the four seasons, and observe and describe weather associated with the seasons and how day length varies	
Scientific Enquiry Skills	Grouping and classifying. Carrying out simple comparative and fair tests	Noticing patterns Finding things out using secondary sources of information Carrying out simple comparative and fair tests Observing changes over time. Grouping and classifying.	Grouping and classifying. Noticing patterns
Tier 2 and 3 Vocabulary	wood, plastic, glass, paper, metal, rock, hard, soft, rough, smooth, shiny, dull, bendy, stiff	amphibians, fish, reptiles, mammals, birds (+ 1 example of each) herbivore, omnivore, carnivore head, nose, ear, neck, shoulder, arm, elbow, wrist, hand, back, chest, hip, leg, knee, ankle, foot wing, beak, tail, fin sight, smell, touch, taste, hearing season, spring, summer, autumn, winter, month, year, day, night, sun, moon, light, dark	deciduous, evergreen, tree, leaf, flower (blossom), petals, fruit, bulb, seed, roots, stem, trunk, branches
Scientist of the term	Charles Macintosh – inventor of waterproof fabric		

Year 2

Unit Title/Enquiry	How has transport changed?	Who were the Normans, why were they successful in invading Britain and how did they keep power?	How far does my food travel?
National Curriculum Link	<p>Uses of everyday materials Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses - find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 	<p>Living things and their habitats Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 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 <p>Animals, including humans Pupils should be taught to:</p> <ul style="list-style-type: none"> - notice that animals, including humans, have offspring which grow into adults - find out about and describe the basic needs of animals, including humans, for survival (water, food and air) - describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene 	<p>Plants Pupils should be taught to:</p> <ul style="list-style-type: none"> - observe and describe how seeds and bulbs grow into mature plants - find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

Unit Overview	Within this unit, children will build upon their historical knowledge of the local area – through homes and expand this learning into the history of transport.	Within this unit, the children will build on their knowledge of kings and queens and look at those who wanted to rule during the Norman invasion.	In this unit, the children will build on their learning from EYFS where they looked at farms and the farming industry in order to understand the journey of their food from the field to their fork.
Prior Knowledge	Year 1, term 1 – Everyday materials	Reception, term 3 – Plants and animals at the bottom of the garden Year 1, term 3 – Animals, including humans	Year 1, term 2 – Plants
Future Links to this Unit	Year 4, term 2 – states of matter Year 5, term 2 – changing properties	Year 4, term 3 – living things Year 5, term 3 – living things Year 6, term 3 – living things Year 4, term 2 - animals including humans Year 5, term 3 - animals including humans Year 6, term 1 – animals including humans	Year 3, term 2 – plants
Scientific Enquiry Skills	Grouping and classifying Carrying out comparative and simple tests Finding things out using secondary sources of information Noticing patterns	Grouping and classifying Noticing patterns Finding things out using secondary sources of information Observing changes over time	Grouping and classifying Observing changes over time Carrying out comparative and simple tests Noticing patterns
Tier 2 and 3 Vocabulary	brick, fabric, elastic, foil, property, solid, waterproof, absorbent, opaque, transparent, squash, bend, flexible, twist, stretch push, pull, roll, slide, bounce	living, dead, habitat, microhabitat, woodland, meadow, hedgerow, pond survival, water, air, food reproduce, adult, baby, offspring, kitten, calf, puppy food chain, prey, predator, camouflage, protection exercise, hygiene, balanced diet	growth, germinate, light, temperature reproduce, lifecycle
Scientist of the term	John Loudon McAdam – inventor of macadam road surfacing material John Boyd Dunlop – Inventor of inflatable rubber tyres		
Additional Experiences		Visit to the seaside	

Year 3

Unit Title/Enquiry	Who has the biggest impact on Doncaster?	Who were the Ancient Egyptians and what marks did they leave behind?	Are Rivers a Friend or Foe?
National Curriculum Link	<p>Rocks</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 <p>Animals, including humans</p>	<p>Light</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - recognise that they need light in order to see things and that dark is the absence of light - notice that light is reflected from surfaces - recognise that light from the sun can be dangerous and that there are ways to protect their eyes - recognise that shadows are formed when the light from a light source is blocked by an opaque object - find patterns in the way that the size of shadows change <p>Forces and magnets</p> <p>Pupils should be taught to:</p>	<p>Plants</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers - explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant - investigate the way in which water is transported within plants - explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat - identify that humans and some other animals have skeletons and muscles for support, protection and movement 	<ul style="list-style-type: none"> - compare how things move on different surfaces - notice that some forces need contact between 2 objects, but magnetic forces can act at a distance - observe how magnets attract or repel each other and attract some materials and not others - compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials - describe magnets as having 2 poles - predict whether 2 magnets will attract or repel each other, depending on which poles are facing 	
Unit Overview	In this unit, the children will take a journey through time as they look at the Stone Age to the Iron Age in order to evaluate who had the biggest impact on Doncaster and life today.	This unit allows for the children to start to build their chronological understanding of different time periods and to connect them to historical timelines that we have around school. Children will learn about the Ancient Egyptians' inventions and the impact that they have on life today.	Linked to learning about the River Nile in the previous term, in this unit the children will learn about the water cycle and about the journey of a river from the source to the mouth of the river.
Prior Knowledge	Year 1, term 3 – animals including humans Year 2, term 3 - animals including humans	EYFS - Exploring the natural world	Year 1, term 2 – plants Year 2, term 3 – plants
Future Links to this Unit	Year 4, term 2 - animals including humans Year 5, term 3 – animals including humans and living things Year 6, term 1 – animals including humans Year 4, term 2 - animals including humans Year 4, term 3 – living things Year 5, term 3 – animals including humans and living things Year 6, term 1 – animals including humans Year 6, term 3 – living things	Year 4, term 1 – forces and magnets Year 5, term 1 – forces Year 6, term 2 - light	
Scientific Enquiry Skills	Grouping and classifying Carrying out comparative and fair tests Observing over time Comparative and fair tests Using secondary sources	Grouping and classifying Comparative and fair tests Noticing patterns Exploration	Observation over time Grouping and classifying Noticing patterns Exploration Carrying out comparative and fair tests Using secondary sources of information
Tier 2 and 3 Vocabulary	soils, organic matter, fossil, crystal, sandstone, granite, marble, pumice absorbent, crumble sedimentary, layer, sediment igneous, magma, lava, gas bubbles (tiny holes/spaces) metamorphic, change, squeeze, pressure	light source, mirror, reflect, reflective, reflection shadow, blocked transparent, translucent, opaque force, contact, surface, magnetic, attract, repel, poles	air, water, transportation, nutrients, soil, reproduction, seed formation, seed dispersal, pollination

	skeleton, skull, bones, muscles, movement, support, protection, nutrition		
Scientist of the term	Mary Anning – Palaeontologist and fossil collector		
Additional Experiences	Geologist talk		
Year 4			
Year Group and Title	Why do we export from Doncaster?	What was the impact of the Roman invasion on Britain and what have they left behind?	Year 4 – What makes the Earth angry? Natural disasters/Impact of global warming
National Curriculum Link	<p>Electricity Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify common appliances that run on electricity - construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers - identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery - recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit - recognise some common conductors and insulators, and associate metals with being good conductors <p>Sound Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 	<p>Animals, including humans Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 <p>Living things and their habitats Pupils should be taught to:</p> <ul style="list-style-type: none"> - recognise that living things can be grouped in a variety of ways - explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment - recognise that environments can change and that this can sometimes pose dangers to living things 	<p>States of matter Pupils should be taught to:</p> <ul style="list-style-type: none"> - compare and group materials together, according to whether they are solids, liquids or gases - observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) - identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Unit Overview	In this unit, the children will use the history of transport knowledge from Year 2 and build on this with understanding the history of the railways and the significance of the developments in Doncaster.	In this unit, the children will develop their knowledge of the Romans and the impact of the Romans on Britain in the past and what impact we can still see today.	The main focus of this unit is to understand the causes and effects of natural disasters (physical geography) and the impact global warming is having on the frequency and occurrence of natural disasters.
Prior Knowledge		Year 1, term 3 – animals including humans Year 2, term 3 - animals including humans Year 3, term 1 and 2 - animals including humans Year 2, term 2 – living things	Year 1, term 1 – everyday materials Year 2, term 1 – everyday materials
Future Links to this Unit	Year 6, term 2 - electricity	Year 5, term 3 – living things Year 6, term 3 – living things	Year 5, term 2 – changing materials
Scientific Enquiry Skills	Grouping and classifying things Exploration Carrying out simple comparative and fair tests Noticing patterns	Grouping and classifying things Looking for patterns Finding things out using secondary sources of information	Observing over time leading to fair testing Grouping and classifying things Fair testing Observing changes over time Exploration
Tier 2 and 3 Vocabulary	appliance, battery power, main power, circuit, series, cell, battery, wire, bulb, switch, break in circuit conductor, insulator vibration, wave, volume, pitch, tone, insulation	mouth, tongue, teeth, oesophagus, stomach, small intestine, large intestine, nutrients, absorb, canine, incisor, molar producer, consumer, apex predator vertebrates, invertebrates (+ 1 example of each) environment, habitat, classification key	solid, liquid, gas, evaporation, condensation, particle, temperature, freezing, heating
Scientist of the term		Jane Goodall - Primatologist	
Additional Experiences	Building an electric train Visiting the National Railway Museum		

Year 5

Unit Title/Enquiry	Year 5 - Should Britain be proud of the British Empire? The British Empire and the Slave trade - 16-19th Century	Who were the Tudors and what impact did the period in time have on modern Britain?	What will happen when all the forests are gone? How can we stop deforestation?
National Curriculum Link	Earth and space Pupils should be taught to: <ul style="list-style-type: none"> - 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 	Properties and changes of materials Pupils should be taught to: <ul style="list-style-type: none"> - compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets - know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution 	Living things and their habitats Pupils should be taught to: <ul style="list-style-type: none"> - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird - describe the life process of reproduction in some plants and animals Animals, including humans Pupils should be taught to: <ul style="list-style-type: none"> - describe the changes as humans develop to old age (Link with PSHE and puberty talk).

	<ul style="list-style-type: none"> - use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky <p>Forces Pupils should be taught to:</p> <ul style="list-style-type: none"> - explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object - identify the effects of air resistance, water resistance and friction, that act between moving surfaces - recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect 	<ul style="list-style-type: none"> - use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating - give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic - demonstrate that dissolving, mixing and changes of state are reversible changes - explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda 	Evolution and inheritance linked with Charles Darwin and the Galapagos islands. ?
Unit Overview	In this unit, the children will continue to develop their knowledge of Britain in the past.	In this unit, the children will live about the Tudor family and the impact they had on Britain in the past and the lasting impact they have had on modern Britain.	In this unit, the children will learn about forests around the world and the impact caused by deforestation (human geography).
Prior Knowledge	Year 3, term 3 – forces Year 4, term 1 - forces	Year 1, term 1 – everyday materials Year 2, term 1 – everyday materials Year 4, term 2 – states of matter	Year 1, term 3 – animals including humans Year 2, term 3 - animals including humans Year 3, term 1 and 2 - animals including humans Year 4, term 2 - animals including humans Year 2, term 2 – living things Year 4, term 3 – living things
Future Links to this Unit			Year 6, term 1 – animals including humans Year 5, term 3 – animals including humans and living things
Scientific Enquiry Skills	Secondary sources of information Comparative and fair tests Noticing patterns Observations over time	Observing over time Comparative and fair tests	Observing over time Comparative and fair tests Secondary sources of information Grouping and classifying Noticing patterns
Tier 2 and 3 Vocabulary	Earth, sun, moon, solar system, axis of rotation, day, night, phases of the moon, star, constellation air resistance, water resistance, friction, gravity lever, gear, pulley, Newtons	hardness, transparency, conductivity (electrical, thermal) solubility, solution dissolve, filter, evaporate, sieve, reversible, irreversible	womb, foetus, embryo, gestation, baby, toddler, teenager, elderly growth, development, puberty life process, reproduction, offspring,
Scientist of the term	Maggie Aderin-Pocock –astronomer Galileo Galilei - Polymath		Sir David Attenborough - Naturalist
Additional Experiences	Visit to National Space Museum		
Career Links	Astronomer, engineer	Architect, mechanical engineer	Naturalist, biologist

Year 6			
Unit Title/Enquiry	Which people have fought for my rights?	What are we fighting for?	Why are we fighting for our future?
National Curriculum Link	<p>Evolution and inheritance Pupils should be taught to:</p> <ul style="list-style-type: none"> - recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago - recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents - identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution <p>Animals including humans Pupils should be taught to:</p> <ul style="list-style-type: none"> - 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 	<p>Light Pupils should be taught to:</p> <ul style="list-style-type: none"> - recognise that light appears to travel in straight lines - use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye - explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes - use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them <p>Electricity Pupils should be taught to:</p> <ul style="list-style-type: none"> - associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit - compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches - use recognised symbols when representing a simple circuit in a diagram 	<p>Living things and their habitats Pupils should be taught to:</p> <ul style="list-style-type: none"> - describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals - give reasons for classifying plants and animals based on specific characteristics
Unit Overview	In this unit, the children will understand the achievements and influence of the Ancient Greeks before moving onto looking a civil rights (Women’s rights, workers’ rights, Children’s rights, Early children’s acts and education acts) building on their learning from Year 5 about the slave trade.	In this unit, children will learn about the cause and effect of events in 1939 that resulted in the outbreak of WWII.	In this final unit, the children will learn about climate change and being involved in actively raising awareness and having a positive impact on the world.
Prior Knowledge	Year 1, term 3 – animals including humans Year 2, term 3 - animals including humans Year 3, term 1 and 2 - animals including humans Year 4, term 2 - animals including humans Year 5, term 3 - animals including humans Jigsaw – Changing Me – Y1, Y2, Y3, Y4, Y5, Y6	Year 3, term 3 – light Year 4, term 1 - electricity	Year 2, term 2 – living things Year 4, term 3 – living things Year 5, term 1/3 - living things
Scientific Enquiry Skills	Secondary sources of information Grouping and classifying Comparative and fair testing	Comparative and fair testing Secondary sources of information Noticing patterns Exploration	Grouping and classifying Pattern seeking Observations over time Secondary sources of information

Tier 2 and 3 Vocabulary	adaptation, evolution, characteristic, reproduction, genetics, survival function, circulatory system, heart, valve, blood vessel, vein, artery transport, oxygenated, deoxygenated lifestyle, drug	refraction, reflection, spectrum, rainbow circuit - series, parallel voltage, volts, amps	characteristic, classification, organism, micro-organism
Scientist of the term	Charles Darwin	Nicolas Tesla/Thomas Edison	
Career Links	Naturalist, biologist, vet, zookeeper	Optician, electrician, engineer	