



## Northfield St Nicholas Science Progression of Knowledge Document

### Topic: Plants

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>	<ul style="list-style-type: none"> <li>Make observations of plants and explain why things occur and talk about changes</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul>	<ul style="list-style-type: none"> <li>Observe and describe how seeds and bulbs grow into mature plants</li> <li>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers</li> <li>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</li> <li>Investigate the way in which water is transported within plants</li> <li>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</li> </ul>			
<b>Suggested Teaching Sequence from Plan Bee</b>		<u>Identifying Plants</u> What is a plant? Garden plants Wild plants Deciduous and Evergreen trees Labelling the parts of a plant Plant life cycles	<u>Growing Plants</u> Seeds Bulbs How are seeds dispersed? Investigating germination conditions How have our plants changed?	<u>How Plants Grow</u> Exploring Roots Water Transportation Leaf Function Flower Power Seed Dispersal Seed Study			
<b>Key Vocabulary</b>	Stem, plant, leaf, flower, grow, roots, seed, bulb.	Plant, seed, bulb, flower, leaves, blossom, petal, stem, root, branches, trunk, bark, stalk, vegetable water, air, sunlight, orchid, buds, fruit, evergreen, deciduous.  Names of garden plants (e.g.: primula, sweet pea, daffodils, tulips, poppy) Names of wild plants (e.g.: common poppies, corn chamomiles, cornflower, blackberry bush) Names of trees (e.g.: oak, silver birch, apple, chestnut)	Seeds, bulbs, water, light, growth, healthy, shoots, seedling, observe, compare, record, temperature, roots, stem, leaf, flower, predict, measure, diagram, life cycle, life process, germinate.	Roots, stem/trunk, leaves, flowers, air, light, water, nutrients, soil, growth, transport, pollination, seed formation, seed dispersal, reproduction, fertiliser, life cycle.			



## Topic: Animals Including Humans

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>	<ul style="list-style-type: none"> <li>Make observations of animals and explain why things occur and talk about changes (ELG). (Animals and their young)</li> <li>Make observations of humans and explain why things occur and talk about changes (ELG). (Human life cycle)</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</li> <li>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</li> </ul>	<ul style="list-style-type: none"> <li>Understand that animals including humans, have offspring which grow into adults</li> <li>Describe the basic needs of animals, including humans, for survival (water, food and air)</li> <li>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</li> </ul>	<ul style="list-style-type: none"> <li>Identifying 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</li> <li>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</li> </ul>	<ul style="list-style-type: none"> <li>Describe the simple functions of the basic parts of the digestive system in humans.</li> <li>Identify the different types of teeth in humans and their simple functions.</li> <li>Construct and interpret a variety of food chains, identifying producers, predators and prey.</li> </ul>	<ul style="list-style-type: none"> <li>Describe the changes as humans develop to old age.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</li> <li>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</li> <li>Describe the ways in which nutrients and water are transported within animals, including humans. - (see also Evolution and inheritance)</li> </ul>
<b>Suggested Teaching Sequence from Plan Bee</b>		<u>Identifying Animals</u> Pets! Exploring Mammals Exploring Birds and Reptiles Comparing Fish and Amphibians Herbivores, Carnivores and Omnivores Taking Care of Animals Animal Survey  <u>My Body</u> Body Parts Busy Bodies Seeing Eyes Touching Hands Smelling Noses Tasting Tongues Hearing Ears	<u>Growth and Survival</u> Offspring Reproduction Growing Up Survival Needs Environments Healthy Eating Exercise	<u>Health and Movement</u> Foods for Growth and Energy Balanced Diets Animal Diets Pet Investigation Skeletons Support and Protection Moving Muscles	<u>Eating and Digestion</u> Herbivore, Carnivore and Omnivore Food Chains Human Teeth Healthy Teeth The Digestive System Understanding Digestion	Please use at your own discretion.  <u>Changes and Reproduction</u> <u>Human Life Cycle</u> <u>Gestation</u> <u>Childhood</u> <u>Puberty Part One</u> <u>Puberty Part Two</u> <u>Adulthood and Old Age</u>	Early Ideas Food Labels Heart Matters Exercise Effects Moving Muscles Drugs and Medicines Evaluation
<b>Key Vocabulary (most important in bold)</b>	Animal and baby names Human, adult, child, baby, grow.	<u>Animal</u> Common animals names within each group. Pet, wild animal, mammal, reptile, amphibian, fish, insect, bird, fur, hair, feathers, vertebrates, invertebrates, skin, legs, backbone, warm blooded, cold blooded, scales, young, birth, eggs, larvae, gills, characteristics, similar, different, fresh water, salt water, rivers, lakes, canals, pond, woodland, grassland, herbivores, carnivores, omnivores, tally, data, total, popular, how many?	Animal babies, adult, species, extinct, survive, mammals, grow, pregnant, birth, eggs, hatch, older, youngest, oldest, baby, toddler, child, teenager, adult, differences, similar, carnivore, herbivore, omnivore, lungs, air, gills, oxygen, food, water, environment, habitat, adapted, suit, grassland, camouflage, healthy, balanced diet, food pyramid, carbohydrates, protein, dairy, fruit and vegetables, sugars, fats, exercise,	Nutrition, nutrients, photosynthesis, protein, energy, starch, fats, sugars, protein, dairy, carbohydrates, fruits and vegetables, food pyramid, vegetarian, disease, intolerance, allergy, carnivores, <b>predators</b> , herbivores, <b>prey</b> , omnivores, investigation, tally, pictogram, question, skeletons, bones, (internal) organs, muscles (smooth, cardiac, skeletal), vertebrates, back bones, invertebrates, brain, spinal cord,	Digestion, carnivore, herbivore and omnivore, energy, food chains, ecosystem, survival, producers, photosynthesis, consumer, organisms, digestive system, diagram, oesophagus, stomach, pancreas, small intestine, large intestine, anus, gallbladder, liver, tongue, functions, saliva, enzymes, contract, absorb, nutrients, blood steam, proteins, carbohydrates, fats, bile, toxic, yeast, bacteria, faeces.	<u>Changes, life cycle, humans, animals, plants, childhood, adulthood, gestation, infancy, adolescence, old age, microscopic, fertilised, fetus, ultrasound, embryo, cell, puberty,</u>	Balanced, protein, drugs, muscle, heart, energy, exercise, vitamins, minerals, scurvy, Vitamin C, mortality, clinical trial, supplement, investigate scientifically, deficiencies, rickets, Vitamin D, Vitamin A, Vitamin B12, variety, fibre, starch, refined sugar, immune system, repair damage, body tissue, digestive system, intestines, bowel, waste, toxins, absorb, insulation, beneficial, nerve fibres, essential fats, regulate, function, circulatory



		<p><u>Body</u> Key body parts (e.g.: head, leg, finger, shoulder, stomach, wrist, finger nail), brain, senses, sight, touch, smell, hear, taste, investigate, describe, explore.</p>	<p>heart, chest, muscles, strong, flexible, overweight, energy.</p>	<p>heart, lungs, liver, external skeleton, fluid, research,</p> <p><u>Muscles</u> (smooth, cardiac, skeletal) extensor, flexor, contract, relax, biceps.</p> <p><u>Bone Names</u> Collar bone, skull, ribs, vertebrae, shoulder blade, pelvis, tibia, fibula, femur.</p>	<p><u>Teeth</u> Incisors, canine, premolars, molars, gums, roots, milk teeth, adult (permanent) teeth.</p>		<p>system, open circulatory, transported, oxygen, carbon dioxide, arteries, veins, capillaries, aorta, atrium, ventricle, pulse, vertebrates, skeleton, tobacco, alcohol, drugs, substance, physical, mental, legal, illegal, beneficial, harmful, medicine, prescription, nicotine, addiction, evaluate.</p> <p><u>Muscles</u> (smooth, cardiac, skeletal) extensor, flexor, contract, relax, biceps, triceps, glutes, hamstrings, pecs, abs, quads.</p> <p><u>Minerals</u> Iron, calcium, magnesium, zinc, potassium.</p>
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**Topic: Materials.**

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>	<ul style="list-style-type: none"> <li>Looks closely at similarities, differences, patterns and change. 40-60</li> <li>To know about similarities and differences in relation to materials, and talk about changes. ELG</li> </ul>	<ul style="list-style-type: none"> <li><u>Everyday Materials</u></li> <li>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.</li> <li>Describe the simple physical properties of a variety of everyday materials.</li> <li>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<ul style="list-style-type: none"> <li><u>Uses of Everyday Materials</u></li> <li>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li> <li>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</li> </ul>	<ul style="list-style-type: none"> <li><u>Rocks</u></li> <li>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</li> <li>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</li> <li>Recognise that soils are made from rocks and organic matter.</li> </ul>	<ul style="list-style-type: none"> <li><u>States of Matter</u></li> <li>Compare and group together, according to whether they are solids, liquids or gases.</li> <li>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).</li> <li>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</li> </ul>	<ul style="list-style-type: none"> <li><u>Properties and Changes of Materials</u></li> <li>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.</li> <li>Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</li> <li>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</li> <li>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</li> <li>Demonstrate that dissolving, mixing and changes of state are reversible changes</li> <li>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</li> </ul>	
<b>Suggested Teaching Sequence from Plan Bee</b>		<u>Everyday Materials</u> Identifying Materials Sorting Materials Describing Properties of Materials Useful Materials Waterproof Investigation Evaluation	<u>Exploring Everyday Materials</u> Sorting Materials Natural and Man-Made Materials Changing Shape Metal and Plastic Turning Wood into Paper Investigating Spoons Material Inventions and Discoveries.	<u>Rocks, Fossils and Soils</u> Natural Rocks Grouping Rocks Erosion and Permeability Useful Rocks Exploring Soils Fossil Formation Identifying Fossils	<u>States of Matter</u> 1) Solids & liquids 2) Properties of gases 3) Melting and Cooling 4) Melting Point 5) Evaporation 6) Condensation 7) The Water Cycle	<u>Properties and Changes of Materials</u> 1) Dissolving 2) Separating Mixtures 3) Irreversible reactions 4) Heating and Cooling 5) Burning 6) Material Properties 7) Properties for uses.	
<b>Key Vocabulary</b>	Hard, Soft, Shiny, dull, bendy, not bendy, wood, metal, fabric, paper	Hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy/not bendy, waterproof/not waterproof, absorbent, opaque, wood, plastic, metal, natural, man made, fragile, transparent, stone, fabric, wool, cotton, paper,	Waterproof, opaque, rubber, rock, paper, cardboard, wood, metal, plastic, glass, brick, sponge, leather, twisting, squashing, bending, man made, sorting, group,	Rocks, igneous, metamorphic, sedimentary, permeable, impermeable, chemical fossil, body fossil, trace fossil, Mary Anning, cast fossil, mould fossil, extinct, organic matter, top soil, sub soil, base rock	Solid, liquid, gas, particles, state, materials, properties, matter, melt, freeze, water, ice, temperature, process, condensation, evaporation, water vapour, energy, precipitation, collection,	Hardness, Solubility, Transparency, Conductivity, Magnetic, Evaporation, Dissolving, Mixing Material, conductor, dissolve, insoluble, , chemical, physical, irreversible, solution, reversible, separate, mixture, insulator, transparent, flexible, permeable, soluble, property, magnetic, hard.	



**Topic: Living Things and Their Habitats**

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>	<ul style="list-style-type: none"> <li>Children know about similarities and differences in living things.</li> <li>They talk about the features of their own immediate environment and how environments might vary from one another.</li> <li>They make observations of animals and plants and explain why some things occur, and talk about changes.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Explore and compare the differences between things that are living, dead, and things that have never been alive.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Recognise that living things can be grouped in a variety of ways.</li> <li>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</li> <li>Recognise that environments can change and that this can sometimes pose dangers to living things.</li> </ul>	<ul style="list-style-type: none"> <li>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</li> <li>Describe the life process of reproduction in some plants and animals.</li> </ul>	<ul style="list-style-type: none"> <li>describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals</li> <li>give reasons for classifying plants and animals based on specific characteristics</li> </ul>
<b>Suggested Teaching Sequence from Plan Bee</b>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Living &amp; Non Living things.</li> <li>Habitats</li> <li>Seaside Habitats</li> <li>Unusual Habitats</li> <li>5)Micro habitats and Minibeasts</li> <li>Food Chains</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Habitats</li> <li>Animal groups</li> <li>Classification Keys</li> <li>Identifying animals</li> <li>Classifying plants</li> <li>6) Human impact on the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Flowering plant reproduction</li> <li>Asexual reproduction in plants.</li> <li>Animal reproduction</li> <li>Animal life cycles</li> <li>Gestation and Growth</li> <li>6) Naturalists.</li> </ul>	<ul style="list-style-type: none"> <li><u>Classifying Organisms</u></li> <li>Grouping organisms.</li> <li>Similar organisms.</li> <li>Classifying plants.</li> <li>The classification system.</li> <li>Microorganisms.</li> <li>Local organisms.</li> </ul>
<b>Key Vocabulary</b>	<ul style="list-style-type: none"> <li>Animal names, sea, grass, trees,, underground,</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Living, dead, never alive, habitats,</li> <li>food, food chain,</li> <li>shelter, sea shore,</li> <li>micro habitat, woodland, ocean, rainforest, conditions, desert, damp, shade,</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Environment, flowering, non-flowering, plants, animals,</li> <li>vertebrates, fish,</li> <li>amphibians, reptiles,</li> <li>mammals,</li> <li>invertebrate, human impact, deforestation.</li> <li>Classification</li> </ul>	<ul style="list-style-type: none"> <li>flowering, non- flowering, plants, animals, vertebrates, fish,</li> <li>amphibians, reptiles,</li> <li>mammals,</li> <li>invertebrate, human impact,</li> <li>Sexual, asexual, reproduction,</li> <li>fertilisation, pollination, male, female, pregnancy,, young, mammal, metamorphosis, amphibian, insect, egg, embryo, bird, plant.</li> </ul>	<ul style="list-style-type: none"> <li>Variation</li> <li>Organisms</li> <li>Populations.</li> <li>Classification</li> <li>Characteristics</li> <li>vertebrates, fish,</li> <li>amphibians, reptiles,</li> <li>mammals,</li> <li>invertebrate, human impact, deforestation. Classify, compare,</li> <li>bacteria, microorganism, organism, invertebrates, vertebrates, Linnaean.</li> </ul>



## Topic: Light and Sound

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>	<ul style="list-style-type: none"> <li>They make observations and explain why some things occur, and talk about changes.</li> </ul>	<ul style="list-style-type: none"> <li>Observe changes across the four seasons.</li> <li>Observe and describe weather associated with the seasons and how day length varies.</li> </ul>		<ul style="list-style-type: none"> <li>Recognise that they need light in order to see things and that dark is the absence of light.</li> <li>Notice that light is reflected from surfaces.</li> <li>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</li> <li>Recognise that shadows are formed when the light from a light source is blocked by an opaque object.</li> <li>Find patterns in the way that the size of shadows change.</li> </ul>	<ul style="list-style-type: none"> <li>Identify how sounds are made, associating some of them with something vibrating.</li> <li>Recognise that vibrations from sounds travel through a medium to the ear.</li> <li>Find patterns between the pitch of a sound and features of the object that produced it.</li> <li>Find patterns between the volume of a sound and the strength of the vibrations that produced it.</li> <li>Recognise that sounds get fainter as the distance from the sound source increases.</li> </ul>		<ul style="list-style-type: none"> <li>Recognise that light appears to travel in straight lines.</li> <li>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.</li> <li>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.</li> <li>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</li> </ul>
<b>Suggested Teaching Sequence from Plan Bee</b>		<ul style="list-style-type: none"> <li>Seasons</li> <li>Comparing seasons</li> <li>Animals in different seasons.</li> <li>Humans in different seasons.</li> <li>Night and Day</li> <li>6) Weather in seasons</li> </ul>		<ul style="list-style-type: none"> <li>Light Sources</li> <li>Day and Night</li> <li>Transparent, Translucent and Opaque.</li> <li>How do shadows change?</li> <li>Shadow length investigation.</li> <li>6) Reflective materials.</li> </ul>	<ul style="list-style-type: none"> <li>What is sound?</li> <li>Travelling sounds.</li> <li>Sound and distance</li> <li>Sound block</li> <li>Pitch perfect</li> <li>String sound</li> <li>7) Air vibrations.</li> </ul>		<ul style="list-style-type: none"> <li>Light and Sound</li> <li>The eyes</li> <li>Reflection</li> <li>Reflecting surfaces</li> <li>Changing shadows</li> <li>6) An evaluation.</li> </ul>
<b>Key Vocabulary</b>	<ul style="list-style-type: none"> <li>Seasons, spring, summer, autumn, winter, Light, dark, shadow, sound, loud, quiet</li> </ul>	<ul style="list-style-type: none"> <li>seasons, spring, summer, autumn, winter, windy, sunny, overcast, snow, rain, temperature</li> </ul>		<ul style="list-style-type: none"> <li>Light source, dark, reflect, ray, bounce, visible, beam, sun, travel, straight, opaque, shadow, block, transparent, translucent.</li> </ul>	<ul style="list-style-type: none"> <li>Amplitude, volume, quiet, loud, ear, pitch, high, low, particles, instruments, wave.</li> </ul>		<ul style="list-style-type: none"> <li>Light source, dark, reflect, beam, sun,, travel, straight, opaque, shadow, block, transparent, translucent.</li> <li>Reflect Absorb</li> <li>Emitted</li> <li>Scattered</li> <li>Refraction</li> </ul>



**Topic: Earth and Space**

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>	<ul style="list-style-type: none"> <li>Children know about similarities and differences in relation to place and objects.</li> <li>They make observations and explain why some things occur, and talk about changes.</li> </ul>					<ul style="list-style-type: none"> <li>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</li> <li>Describe the movement of the Moon relative to the Earth.</li> <li>Describe the Sun, Earth and Moon as approximately spherical bodies.</li> <li>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</li> </ul>	
<b>Suggested Teaching Sequence from Plan Bee</b>						<ol style="list-style-type: none"> <li>1) Spherical bodies</li> <li>2) Super sizes</li> <li>3) Day, Night and Time Zones.</li> <li>4) Day Data</li> <li>5) What is a Year?</li> <li>6) A Lunar Month</li> </ol>	
<b>Key Vocabulary</b>	Sun, moon, Earth, day, night, stars					Earth, Sun, Moon, Axis, Spherical, Rotation, Day, Night, Phases of the Moon, star, constellation, waxing, waning, crescent, gibbous. Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, planets, solar system, day,	



**Topic: Forces**

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>	<ul style="list-style-type: none"> <li>Children know about similarities and differences in relation to objects and materials.</li> <li>They make observations and explain why some things occur, and talk about changes.</li> </ul>			<ul style="list-style-type: none"> <li>Compare how things move on different surfaces.</li> <li>Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</li> <li>Observe how magnets attract or repel each other and attract some materials and not others.</li> <li>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.</li> <li>Describe magnets as having two poles.</li> <li>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> </ul>		<ul style="list-style-type: none"> <li>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</li> <li>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.</li> <li>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> </ul>	
<b>Suggested Teaching Sequence from Plan Bee</b>				<ul style="list-style-type: none"> <li><u>Forces and Magnets</u></li> <li>Pushes and Pulls</li> <li>Comparing Movement</li> <li>Exploring Magnets</li> <li>Magnetic Materials</li> <li>Uses for Magnets</li> </ul>		<ul style="list-style-type: none"> <li><u>Forces in Action</u></li> <li>Gravity</li> <li>Friction</li> <li>Air Resistance</li> <li>Water Resistance</li> <li>Levers and Pulleys</li> <li>Gears</li> </ul>	
<b>Key Vocabulary</b>	<ul style="list-style-type: none"> <li>push, pull, slow, quick,</li> </ul>			<ul style="list-style-type: none"> <li>Force, push, pull, friction, surface, magnet, magnetic, magnetic field, pole, north, south, attract, repel, compass.</li> </ul>		<ul style="list-style-type: none"> <li>Air resistance, Water resistance, Friction, Gravity, Newton, Gears, Pulleys, force, push, pull, opposing, streamline, brake, mechanism, lever, cog, machine, pulley.</li> </ul>	





**Topic: Electricity**

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>					<ul style="list-style-type: none"> <li>Identify common appliances that run on electricity.</li> <li>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</li> <li>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.</li> <li>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</li> <li>Recognise some common conductors and insulators, and associate metals with being good conductors.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</li> <li>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.</li> <li>Use recognised symbols when representing a simple circuit in a diagram.</li> </ul>
<b>Suggested Teaching Sequence from Plan Bee</b>					<ol style="list-style-type: none"> <li>Circuit components.</li> <li>Mains Vs Batteries</li> <li>Conductors and insulators.</li> <li>Safe conductors.</li> <li>Switched on.</li> <li>Bulb Brightness.</li> </ol>		<ol style="list-style-type: none"> <li>Circuit basics</li> <li>Bulb brightness</li> <li>Circuit symbols</li> <li>Which wire</li> <li>Assessment</li> </ol>
<b>Key Vocabulary</b>					electricity, wire, appliances, circuit, cell, bulb, buzzer, insulator, conductor, mains, battery, switch, flow.		component, circuit, voltage, brightness, switches, series circuits, symbols, bulb, buzzer, motor, battery,



**Topic: Evolution**

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>National Curriculum Objectives</b>		•	•	•			<ul style="list-style-type: none"> <li>• Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</li> <li>• Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</li> <li>• Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li> </ul>
<b>Suggested Teaching Sequence from Plan Bee</b>							<ol style="list-style-type: none"> <li>1) Inherited characteristics.</li> <li>2) Advantageous Adaptations.</li> <li>3) How living things evolve.</li> <li>4) Darwin.</li> <li>5) The Fossil Record</li> <li>6) Human Evolution</li> </ol>
<b>Key Vocabulary</b>							Fossils, Adaptation, Evolution, Characteristics, Reproduction, Genetics