Firs Primary School Subject Curriculum and Progression

Science

	Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	**Understanding the World ELG** (The Natural World ELG) Children at the expected level of development will: -Explore the natural world around them, making observations and drawing pictures of animals and plants -Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class -Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter	**1. Plants**					
		a) identify and name a variety of common wild and garden plants, including deciduous and evergreen trees b) identify and describe the basic structure of a variety of common flowering plants, including trees	c) observe and describe how seeds and bulbs grow into mature plants d) find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	e) identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers f) 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 g) investigate the way in which water is transported within plants *h)* explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal			
		2. Animals, Including Humans					
		a) identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals b) identify and name a variety of common animals that are carnivores, herbivores and omnivores c) describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) d) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	e) notice that animals, including humans, have offspring which grow into adults f) find out about and describe the basic needs of animals, including humans, for survival (water, food and air) g) describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	h) 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 i) identify that humans and some other animals have skeletons and muscles for support, protection and movement	j) describe the simple functions of the basic parts of the digestive system in humans k) identify the different types of teeth in humans and their simple functions l) construct and interpret a variety of food chains, identifying producers, predators and prey	*m)* describe the changes as humans develop to old age	n) identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood o) recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function p) describe the ways in which nutrients and water are transported within animals, including humans

		3. Living Things and Their Habitats					
			a) explore and compare the difference between things that are living, dead, and things that have never been alive b) identify that most living things live in habitats to which they are suited and describe how different habitats provide the basic needs of different kinds of animals and plants, and how they depend on each other c) identify and name a variety of plants and animals in their habitats, including micro-habitats d) 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		e) recognise that living things can be grouped in a variety of ways f) explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment g) recognise that environments can change and that this can sometimes pose dangers to living things	h) describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird i) describe the life process of reproduction in some plants and animals	j) 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 k) give reasons for classifying plants and animals based on specific characteristics
		4. Evolution and Inheritance					
							a) recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago b) recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents c) identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

		5. Light and Sound					
				a) recognise that they need light in order to see things and that the dark is the absence of light b) notice that light is reflected from surfaces c) recognise that light from the sun can be dangerous and that there are ways to protect their eyes d) recognise that shadows are formed when the light from a light source is blocked by a solid object e) find patterns in the way that the size of shadows changes	f) identify how sounds are made, associating some of them with something vibrating g) recognise that vibrations from sounds travel through a medium to the ear h) find patterns between the pitch of a sound and features of the object that produced it i) find patterns between the volume of a sound and the strength of the vibrations that produced it j) recognise that sounds get fainter as the distance from the sound source increases		k) recognise that light appears to travel in straight lines l) 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 m) 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 n) use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
		6. Electricity					
					a) identify common appliances that run on electricity b) construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers c) 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 d) recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit e) recognise some common conductors and insulators, and associate metals with being good conductors		f) Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit g) 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 h) use recognised symbols when representing a simple circuit in a diagram

		7. Forces and Magnets					
				a) compare how things move on different surfaces b) notice that some forces need contact between two objects, but magnetic forces can act at a distance c) observe how magnets attract or repel each other and attract some materials and not others d) compare and group together a variety of everyday materials on the basis on whether they are attracted to a magnet, and identify some magnetic materials e) describe magnets as having two poles f) predict whether two magnets will attract or repel each other, depending on which poles are facing		g) explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object h) identify the effects of air resistance, water resistance and friction, that act between moving surfaces i) recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect	
		8. Seasonal Change and Earth and Space					
		a) observe changes across the four seasons b) observe and describe weather associated with the seasons and how day length varies				c) describe the movement of the Earth, and other planets, relative to the Sun d) describe the movement of the Moon relative to the Earth e) describe the Sun, Earth and Moon as approximately spherical bodies f) use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	

		9. Materials, Properties and Changes of Materials, and States of Matter					
		a) distinguish between an object and the material from which it is made b) identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock c) describe the simple physical properties of a variety of everyday materials d) compare and group together a variety of everyday materials on the basis of their simple physical properties	e) identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses f) find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	g) compare and group together different kinds of rocks on the basis of their appearance and simple physical properties h) describe in simple terms how fossils are formed when things that have lived are trapped within rock i) recognise that soils are made from rocks and organic matter	j) compare and group materials together, according to whether they are solids, liquids or gases k) 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) l) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	m) 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 n) know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution o) use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating p) give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic q) demonstrate that dissolving, mixing and changes of state are reversible changes r) 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	

		10. Working Scientifically		
		a) ask simple questions and recognise that they can be answered in different ways b) observe closely, using simple equipment c) perform simple tests d) gather and record data to help in answering questions e) identify and classify f) use their observations and ideas to suggest answers to questions	g) ask relevant questions and use different types of scientific enquiries to answer them h) set up simple practical enquiries, comparative and fair tests i) make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers j) record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables k) gather, record, classify and present data in a variety of ways to help in answering questions l) identify differences, similarities or changes related to simple scientific ideas and processes m) report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions n) use straightforward scientific evidence to answer questions or to support their findings o) use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	p) plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary q) take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate r) record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs s) identify scientific evidence that has been used to support or refute ideas or arguments t) report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations u) use test results to make predictions to set up further comparative and fair tests

Coverage by Topic and Vocabulary

Enchanted Woodland
Year 1: 1a, 1b, 10a, 10b, 10d, 10e, 10f
Year 2: 1c, 1d, 10a, 10b, 10d, 10e, 10f

Year 1: identify, describe, name, common, wild, garden, deciduous, evergreen, tree, plant, structure, leaf, stem, petal, root, trunk, branch

Year 2: observe, describe, seeds, bulbs, grow, mature, plants, water, light, dark, temperature, healthy, soil, seedling, warm, cool, hot, cold

Investigation: Are all leaves the same?
Investigation vocabulary: question, answer, gather, record, identify, classify, sort, label, observe, observation, same, different, similar

Moon Zoom
Year 1: 8a 8b, 10b, 10c, 10d, 10f
Year 2: 10b, 10c, 10f

Year 1: observe, change, season, Autumn, Spring, Summer, Winter, weather, hot, cold, dun, snow, rain, wind, cloud, night, day, sunrise, sunset

Year 1 Investigation: Weather investigations e.g. wind diary or rain gauge
Investigation vocabulary: question, answer, observe, gather, record

Year 1 and 2 investigation: Fizzy bottle rockets
https://www.rigb.org/docs/fizzybottlerockets_infosheet_v2_0.pdf
Investigation vocabulary: question, answer, observe, test, experiment, fuel, rocket, gas, propel, chemical reaction, predict

Muck, Mess and Mixtures
Year 1: 2d, 10a, 10b, 10c, 10e
Year 2: 2f, 2g, 10a, 10b, 10c, 10d, 10f

Year 1: identify, name, human, body, eyes, ears, nose, mouth, arms, hands, head, face, legs, feet, knees, elbows, shoulders, hips, fingers, toes, sight, sound, seeing, hearing, touch, feel, texture, taste, sweet, sour, bitter, salty, smell

Year 2: needs, humans, survive, survival, water, food, air, oxygen exercise, food, hygiene, healthy, unhealthy, weight, energy, sleep, rest, fruit, vegetables, carbohydrates, dairy, meat, eggs, sugar

Year 1 Investigation: Senses Investigations
https://kidshealth.org/en/kids/experiment-main.html
Investigation vocabulary: question, answer, observe, test, classify, identify, predict

Year 2 Investigation: Egg Shell/healthy teeth investigation
https://www.science-sparks.com/how-to-keep-teeth-healthy/
Investigation vocabulary: question, answer, observe, test, record, change, similar, different, same, toothpaste, acid, protect, damage, predict

Rio de Vida
Year 1: 2a, 2b, 2c
Year 2: 2e, 3a, 3b, 3c, 3d

Year 1: fish, amphibians, reptiles, birds, mammals, goldfish, frog, toad, newt, snake, lizard, mouse, cat, dog, pig, sheep, horse, cow, goat, chicken, pigeon, owl, blackbird, carnivore, herbivore, omnivore,

Gods and Mortals
6a, 6b, 6c, 6d, 6e
10g, 10h, 10i, 10j, 10k, 10l, 10m, 10n, 10o

Appliance, electricity, series circuit, cells, wires, bulbs, switches, buzzers, battery, lamp, loop, conductor, insulator, metal

Investigation: Conductors and Insulators
file:///C:/Users/lpugh/Downloads/Conductors_And_Insulators.pdf
Investigation Vocabulary: enquiry, practical, comparative, fair, test, systematic, observation, findings, table, Venn diagram, record, classify, data, differences, similarities, material, evidence, findings, predictions,

Urban Pioneers
1e, 1f, 1g, 1h
10g, 10h, 10i, 10j, 10k, 10l, 10m, 10n, 10o

Function, flowering, roots, stem, trunk, leaves, flowers, life, growth, requirement, air, light, water, nutrients, soil, transported, life cycle, pollination, seed, formation, dispersal

Investigation: Room for Growth
https://www.farmafrica.org/downloads/2016-ghtb/science-ks2---plant-growth-2017.pdf
Investigation Vocabulary: enquiry, practical, comparative, fair, test, systematic, observation, findings, table, record, data, differences, similarities, evidence, findings, predictions, conditions, factors

Predator
2h, 2i, 2l, 3e, 3f, 3g
10g, 10i, 10j, 10k, 10l, 10m, 10n

Animals, humans, nutrition, skeletons, muscles, support, protection, movement, food chain, interpret, producers, predators, prey, group, classification key, environment, habitat, endangered, extinct, classify, mammals, reptiles, amphibians, birds, fish

Investigation: Habitats, Soil Soup
https://www.sustainablelearning.com/resource/habitats-investigation-lower-ks2
Investigation Vocabulary: observe, record, differences, similarities, change, survey, grounds, wildlife, survival, soil, pollinators, sites, ecologists, wildlife corridors, record, map, identify, explore, investigate, soil, ingredients, pollinators, wildflowers

Playlist
5f, 5g, 5h, 5i, 5j
10g, 10h, 10i, 10j, 10k, 10l, 10m, 10n, 10o

Sound, vibrate, vibration, vibrating, medium, ear, pitch, low, high, sound wave, volume, loud, quiet, distance

Investigations: How does sound travel through solids, liquids and gases?

- *Hydrophone Experiment: https://www.ogdentrust.com/assets/general/Phizzi-Practical-Make-a-hydrophone_for-website.pdf*
- *'See the Sound' and 'Classic Paper Cup and String Phone' Experiments https://www.kidsacademy.mobi/storytime/sound-science-experiments/*

A Child's War
7g, 7h, 7i
10p, 10q, 10r, 10s, 10t, 10u

Unsupported, object, fall, Earth, gravity, air resistance, water resistance, friction, surfaces, mechanism, lever, push, pull, pulley, gear, force, effect, weight, heavy, light, effect

Investigation: Slipping and Sliding; testing friction
https://www.science-sparks.com/slipping-and-sliding/
Investigation vocabulary: enquiry, control, variable, measurement, precision, accuracy, repeat reading, record, data, table, scatter graph, bar graph, line graph, evidence, support, refute, report, present, findings, conclusions, causal relationships, explanation, degree of trust, predictions, comparative, fair, test

Frozen Kingdom
3j,3k
10q, 10r, 10s, 10t

classify, characteristics, similarities, differences, micro-organisms, plants, animals, producer, prey, predator, mammal, amphibian, reptile, bird, fish, invertebrate, insect, arachnid

Investigation: Melting Polar Ice Caps
https://www.science-sparks.com/melting-polar-ice-caps/
Investigation vocabulary: measurement, centimetres, millimetres, water level, sea level, melt, ice caps, habitat, temperatures, climate change, record, diagram, line graph, evidence, refute, support, findings, conclusions, causal relationships

Bloodheart
2n, 2o, 2p
10r, 10t

heart, blood, blood vessels, veins, arteries, nutrients, water, oxygen, waste, exercise, drugs, alcohol, cigarettes, diet, lifestyle, healthy, unhealthy, function, circulate, circulatory system, pulse, heart rate

Investigation: Dissecting Sheep's Heart
https://www.instructables.com/id/Heart-Dissection/
Investigation vocabulary: diagram, label, explanation, dissect, valves, ventricles, atrium

Darwin's Delights
4a, 4b, 4c
10p, 10t

Change, time, fossils, information, inhabit, inhabited, Earth, dinosaurs, prehistoric, skeleton, offspring, vary, identical, adapt, adapted, environment, evolution, extinct

Investigation – Who has the best beak? Understanding why birds have different beaks.
https://www.stem.org.uk/resources/elibrary/resource/33665/education-pack-seeds-and-fruits-adaptation
https://www.tes.com/teaching-resource/bird-beaks-6267561
Investigation vocabulary: predict, enquiry, variable, report, present, explanation

		fins, scales, tail, beak, wing, snout, legs, feet, paws, talons, claws, trotters, hooves, toes, skin, fur, feathers *Year 2: Foal, piglet, calf, lamb, tadpole, caterpillar, kitten, puppy, egg, hatch, baby, adult, offspring, living, dead, never alive, habitat, home, live, needs, suited, animals, plants, trees, nest, ground, sky, water, river, pond, farm, forest, garden, food, food chain, predator, prey, herbivore, carnivore, omnivore, wild, domestic, seeds, nuts, berries* **Street Detective** Year 1: 1a, 1b Year 2: 1c, 1d *Year 1: identify, describe, name, common, wild, garden, deciduous, evergreen, tree, plant, structure, leaf, stem, petal, root, trunk, branch* *Year 2: observe, describe, seeds, bulbs, grow, mature, plants, water, light, dark, temperature, healthy, soil, seedling, warm, cool, hot, cold* **Land Ahoy** Year 1: 9a, 9b, 9c, 9d, 10a, 10b, 10c, 10d, 10e, 10f Year 2: 9e, 9f, 10a, 10b, 10c, 10d, 10e, 10f *Year 1: object, material, identify, wood, plastic, glass, metal, water, rock, fabric, properties, hard, soft, smooth, rough, bend, stretch, twist, rigid, compare, same, different, similar, waterproof, light, heavy, float, sink, dissolve* *Year 2: identify, compare, suitable, unsuitable, materials, wood, metal, plastic, glass, brick, rock, paper, cardboard, squash, bend, stretch, twist, shape, change, waterproof, light, heavy, float, sink, dissolve* ***Investigation: Waterproofing coins -*** *https://www.science-sparks.com/protect-the-pirate-coins-waterproofing-activity/* *Investigation vocabulary: question, answer, observe, test, record, change, similar, different, identify, classify, sort, observe, observation, predict* **Bright Lights, Big City** Year 1: 9a, 9b, 9c, 9d, 10a, 10b, 10c, 10d, 10e, 10f Year 2: 9e, 9f, 10a, 10b, 10c, 10d, 10e, 10f *Year 1: object, material, identify, wood, plastic, glass, metal, water, rock, fabric, properties, hard, soft, smooth, rough, bend, stretch, twist, rigid, compare, same, different, similar* *Year 2: identify, compare, suitable, unsuitable, materials, wood, metal, plastic, glass, brick, rock, paper, cardboard, squash, bend, stretch, twist, shape, change* ***Investigation: Protect the egg – Egg Drop Challenge*** *https://www.tes.com/teaching-resource/egg-drop-challenge-6408374* *Investigation vocabulary: question, answer, observe, test, record, change, similar, different, same, identify, classify, sort, observe, observation, predict* **Superheroes**	*Investigation vocabulary: enquiry, practical, comparative, fair, test, systematic, observation, findings, table, record, classify, data, differences, similarities, material, evidence, findings, predictions, solid, liquid, gas* **Tribal Tales** 5a, 5b, 5c, 5d, 5e 10g, 10h, 10i, 10j, 10k, 10l, 10m, 10n, 10o *light, dark, reflected, reflect, reflection, surface, sun light, protection, shadow, absence, light source, solid, opaque, transparent* ***Investigation: Shadow Size*** *file:///C:/Users/lpugh/Downloads/Investigating_Shadow_Size.pdf* *Investigation vocabulary: enquiry, practical, comparative, fair, test, systematic, observation, findings, table, record, data, differences, similarities, evidence, findings, predictions, width, measurement* **Heroes and Villains** 5a, 5b, 5c, 5d, 5e 10g, 10h, 10i, 10j, 10k, 10l, 10m, 10n, 10o *light, dark, reflected, reflect, reflection, surface, sun light, protection, shadow, absence, light source, solid, opaque, transparent* *Investigations: Reflective materials* *https://www.tes.com/teaching-resource/reflections-and-mirrors-6163976* *Investigation vocabulary: enquiry, practical, comparative, fair, test, systematic, observation, findings, table, record, data, differences, similarities, evidence, findings, predictions, width, measurement, shiny, matt, dull* **Tremors** 9g, 9h, 9i, 9j, 9k 10g, 10h, 10i, 10j, 10k, 10l, 10m, 10n, 10o *Compare, group, same, different, similar, appearance, properties Sedimentary, metamorphic, igneous, fossil, formed, soil, rock, organic matter, solid, liquid, gas, state, matter, heat, cool, melt, burn, evaporate, temperature, degrees, Celcius, boil, freeze* ***Investigation: Rock suitability*** *(e.g. https://www.tes.com/teaching-resource/rocks-and-soils-science-investigation-6403906)* *Investigation vocabulary: purpose, permeability, durability, enquiry, practical, comparative, fair, test, systematic, observation, findings, table, record, data, differences, similarities, evidence, findings, predictions* **Burps, Bottoms, Bile** 2j, 2k 10q,10h,10i, 10j, 10m *mouth, oesophagus, stomach, small intestine, large intestine, gallbladder, pancreas, liver, saliva, rectum, digest, nutrition, nutrients, waste, urine, faeces, teeth, gums, tongue incisors, canines, pre-molars and molars, cut, tear, grind, crush*	**Off With Her Head** 5k, 5l, 5m, 5n 10p, 10q, 10r, 10s, 10t, 10u *Light, travel, straight, waves, reflect, light source, eyes, objects, shadows, cast* ***Investigations: Yr 6 Light Investigations*** *https://www.outstandingscience.co.uk/index.php?action=view_page&page=_view_unit&unit=6d* *Investigation vocabulary: enquiry, control, variable, measurement, precision, accuracy, repeat reading, record, data, table, scatter graph, bar graph, line graph, evidence, support, refute, report, present, findings, conclusions, causal relationships, explanation, degree of trust, predictions, comparative, fair, test, diagram, spectrum, periscope, angle* **Stargazers** 8c, 8d, 8e, 8f 10r, 10s, 10t *Earth, Sun, planets, solar system, relative, moon, orbit, spherical, rotation, axis, day, night, sky, stars, galaxy, universe, gravity* ***Investigations: Yr 5 Earth and Space Investigations*** *https://www.outstandingscience.co.uk/index.php?action=view_page&page=view_unit&unit=5d* ***Orbit modelling*** *https://www.bbc.co.uk/bitesize/clips/zkynvcw* *https://www.bbc.co.uk/bitesize/clips/z3jd7ty* *Investigation vocabulary: record, diagram, label, evidence, refute, support, report, present, conclusion, explanation, presentation* **Alchemy Island** 9m, 9n, 9o, 9p, 9q, 9r 10p, 10r, 10t, 10u *Compare, group, properties, hardness, solubility, transparency, conductivity, electrical, thermal, response, magnets, attract, repel, opaque, transparent, dissolve, liquid, solution, recover, substance, solid, gas, mixture, separate, filter, sieve, evaporate, comparative, fair, test, evidence, metals, wood, plastic, state, reversible, irreversible, burning, action, acid, bicarbonate of soda* ***Investigations: Separating Solutions, Separating Mixtures and Reversible and Irreversible Changes*** *https://www.outstandingscience.co.uk/index.php?action=view_page&page=view_unit&unit=5c* *Investigation vocabulary: enquiry, variable, data, results, diagram, label,report, present, findings, conclusions, predictions, comparative, fair, tests* **Pharaohs** 6f, 6g, 6h *Brightness, lamp, bulb, volume, buzzer, voltage, cells, circuit, electricity, electrical, components, switches, wires, symbol, series circuit, diagram* ***Investigation: Making traffic lights*** *https://www.outstandingscience.co.uk/index.php?action=view_page&page=view_unit&unit=6e*

		Year 1: 2d, 10a, 10b, 10c, 10d, 10e, 10f Year 2: 2f, 2g, 10a, 10b, 10c, 10d, 10e, 10f Year 1: *identify, name, human, body, eyes, ears, nose, mouth, arms, hands, head, face, legs, feet, knees, elbows, shoulders, hips, fingers, toes, sight, sound, seeing, hearing, touch, feel, texture, taste, sweet, sour, bitter, salty, smell* *Year 2: needs, humans, survive, survival, water, food, air, oxygen exercise, food, hygiene, healthy, unhealthy, weight, energy, sleep, rest, fruit, vegetables, carbohydrates, dairy, meat, eggs, sugar* ***Year 1 Investigation: Senses Investigations*** *https://kidshealth.org/en/kids/experiment-main.html* *Investigation vocabulary: question, answer, observe, test, classify, identify, predict* ***Year 2 Investigation: Egg Shell/healthy teeth investigation*** *https://www.science-sparks.com/how-to-keep-teeth-healthy/* *Investigation vocabulary: question, answer, observe, test, record, change, similar, different, same, toothpaste, acid, protect, damage, predict* **Paws, Claws and Whiskers** Year 1: 2a, 2b, 2c, 10a, 10b Year 2: 2e, 2f, 3a, 3b, 3c, 3d, 10a, 10b *Year 1: fish, amphibians, reptiles, birds, mammals, goldfish, frog, toad, newt, snake, lizard, mouse, cat, dog, pig, sheep, horse, cow, goat, chicken, pigeon, owl, blackbird, carnivore, herbivore, omnivore, fins, scales, tail, beak, wing, snout, legs, feet, paws, talons, claws, trotters, hooves, toes, skin, fur, feathers* *Year 2: Foal, piglet, calf, lamb, tadpole, caterpillar, kitten, puppy, egg, hatch, baby, adult, offspring, living, dead, never alive, habitat, home, live, needs, suited, animals, plants, trees, nest, ground, sky, water, river, pond, farm, forest, garden, food, food chain, predator, prey, herbivore, carnivore, omnivore, wild, domestic, seeds, nuts, berries, needs, humans, survive, survival, water, food, air, oxygen* ***Investigation: (If possible) Frogspawn to Tadpole; growth and change - observation over time.*** *Investigation vocabulary: grow, change, frogspawn, tadpole, tail, legs, head, body, egg, observe* **Scented Garden** Year 1: 1a, 1b, 8a, 8b, 10a, 10b, 10c, 10d, 10f Year 2: 1c, 1d, 10a, 10b, 10c, 10d, 10f *Year 1: identify, describe, name, common, wild, garden, deciduous, evergreen, tree, plant, structure, leaf, stem, petal, root, trunk, branch, observe, change, season, Autumn, Spring, Summer, Winter, weather, hot, cold, dun, snow, rain, wind, cloud, night, day, sunrise, sunset* *Year 2: observe, describe, seeds, bulbs, grow, mature, plants, water, light, dark, temperature, healthy, soil, seedling, warm, cool, hot, cold* ***Investigation: Observe and record the growth of plants as they change over time - setting up comparative tests to show what plants need to stay healthy.*** *Investigation vocabulary: observe, record, predict, compare, test, same, different*	***Investigation: Show the digestive system using food and a pair of tights.*** *https://www.stem.org.uk/resources/elibrary/resource/35396/digestive-system-experiment* *Investigation vocabulary: practical, enquiry, observation, record, explanation, present, diagram* **Mighty Metals** 7a, 7b, 7c, 7d, 7e, 7f 10g, 10h, 10i, 10j, 10k, 10l, 10m, 10n, 10o *Friction, fast, slow, push, pull, contact, magnetic, forces, attract, repel, materials, compare, group, poles, north pole, south pole, predict* ***Investigation: Magnetism through Materials*** *file:///C:/Users/lpugh/Downloads/Magnetism_Through_Materials.pdf* *Investigation vocabulary: enquiry, practical, comparative, fair, test, systematic, observation, findings, table, record, data, differences, similarities, evidence, findings, predictions, Venn diagram* **Blue Abyss** 3e, 3f, 3g, 9l, 2l 10g,10h,10i, 10j, 10m *Group, classify, classification key, mammals, reptiles, amphibians, birds, fish, environment, habitat, endangered, extinct, evaporation, condensation, precipitation, transpiration, vapor, water cycle, river, lake, sea, ocean, mountain, cloud, mouth, source, food chain, predator, prey, producer* ***Investigation: Water cycle investigation*** *https://www.science-sparks.com/make-a-mini-water-cycle/* *Investigation vocabulary: practical, enquiry, observation, record, explanation, present, diagram*	**Time Traveller** 2m, 3h, 3i 10r, 10s, *Foetus, baby, toddler, infant, child, teenager, puberty, old age, elderly, physical changes, emotional changes, reproduce, life cycle, gender, hormones, period, gestation, frail, mammal, amphibian, insect, bird, egg, hatch, birth, milk, reproduction, seed, pollination, nectar, pollinator, mate* ***Investigations: Vegetative reproduction*** *https://www.outstandingscience.co.uk/index.php?action=view_page&page=view_unit&unit=5a* *Investigation vocabulary: diagram, label* ***Foetal Development*** *https://www.outstandingscience.co.uk/index.php?action=view_page&page=view_unit&unit=5b* *Investigation vocabulary: line graph, data, measurement, evidence, support, refute*

		<u>Dinosaurs</u> Year 1: 10a, 10d, 10e, 10f Year 2: 3a, 10a, 10d, 10e, 10f *Year 1: dinosaur, fossil, extinct* *Year 2: Compare, same, different, similar, living, dead, never alive, extinct, endangered, fossil, skeleton, breathe, move, reproduce, dinosaur* ***Investigation: Did all dinosaurs have the same body parts?*** *Investigation vocabulary: question, answer, gather, record, identify, classify, sort, label, observe, tail, legs, horns, frill, plates, claws, same, different, similar* **<u>Towers, Turrets and Tunnels</u>** Year 1: 9a, 9b, 9c, 9d, 10a, 10c, 10d, 10e, 10f Year 2: 9e, 9f, 10a, 10c, 10d, 10e, 10f *Year 1: object, material, identify, wood, plastic, glass, metal, water, rock, fabric, properties, hard, soft, smooth, rough, bend, stretch, twist, rigid, compare, same, different, similar, strong, weak* *Year 2: identify, compare, suitable, unsuitable, materials, wood, metal, plastic, glass, brick, rock, paper, cardboard, squash, bend, stretch, twist, shape, change, strong, weak* ***Investigation: The Billy Goats Gruff;*** **Children to design and choose materials to build a bridge. Which will be the strongest? Build a variety of bridges from various materials and find out which is the strongest by putting on a weight/ object to see if it holds.** *Investigation vocabulary: predict, test, record, weight, heavy, light, observation*		