

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS: N	Exploring the Environment	Exploring Objects	Exploring Parts	Exploring Features	Discussing Observations	Exploring Representations
UtW	<ul style="list-style-type: none"> Is curious and interested to explore new and familiar experiences in nature: grass, mud, puddles, plants, animal life. 	<ul style="list-style-type: none"> Explores objects by linking together different approaches. Remembers where objects belong. Ownership of the classroom and knowing where things belong. 	<ul style="list-style-type: none"> Matches parts of objects that fit together, e.g. put lids on tea pots. 	<ul style="list-style-type: none"> Notices detailed features of objects in their environment. 	<ul style="list-style-type: none"> Can talk about some of the things they have observed such as plants, animals, natural and found objects. Science area where the children engage with natural materials, e.g. growing cress, creating a worm farm. 	<ul style="list-style-type: none"> Enjoys playing with small world reconstructions, building on first hand experiences.
Vocab	look, watch, see, touch, feel, smell, taste, listen, light, dark, day, night, shadow, same, different, seed, grow, plant, leaves, flowers, roots, mini-beast, seasons, weather	look, watch, see, touch, feel, smell, taste, listen, float, sink, freezing, melting, same, different	look, watch, see, touch, feel, listen, same, different	look, watch, see, touch, feel, smell, listen, dark, day, night, shadow, same, different, seasons, weather	look, watch, see, touch, feel, smell, listen, same, different, seed, grow, plant, leaves, flowers, roots, mini-beast, seasons, weather	look, watch, see, touch, feel, listen, same, different
EYFS: R	Forces / Autumn	Colour, Light & Reflections / Winter	The Five Senses / Spring	Materials / Spring	Plants / Summer	Wildlife and our Environment
UtW	<ul style="list-style-type: none"> Talk about why things happen and how things work. 	<ul style="list-style-type: none"> Develop an understanding of growth, decay and changes over time. Ask questions about aspects of their familiar world. 	<ul style="list-style-type: none"> Know about similarities and differences in relation to places, objects, materials and living things. 	<ul style="list-style-type: none"> Know about similarities and differences in relation to places, objects, materials and living things. 	<ul style="list-style-type: none"> Make observations of animals and plants and explain why some things occur. 	<ul style="list-style-type: none"> Show care and concern for living things. Understand the impact their behaviour can have on the environment.
Vocab	natural / not natural (man-made), melting, freezing, magnet, roll, push, pull, blow names of the seasons	Colour, light, reflection, shadows names of the seasons	taste, smell, touch names of the seasons	dissolving, floating, sinking fabrics, materials names of the seasons	root, stem, leaf, seeds, fruit, vegetables, life-cycle names of the seasons	pets, wildlife, mini-beasts, life-cycle names of the seasons
Year 1	Everyday Materials (1)		Plants (1)		Animals, including Humans (1)	
	Pupils should be taught to: <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 objects Compare and group together a variety of everyday materials on the basis of their simple physical properties 		Pupils should be taught to: <ul style="list-style-type: none"> Identify and name a variety of wild and garden plants, including deciduous and evergreen trees Identify and describe the basic structure of a variety of common flowering plants, including trees 		Pupils should be taught to: <ul style="list-style-type: none"> Identify and name a variety of common animals including fishes, 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, including pets Identify, name and draw the basic parts of the human body and say which part of the body is associated with each sense 	
Vocab	object, material, wood, plastic, glass, metal, water, rock, properties, hard / soft, stretchy / stiff, shiny / dull, rough / smooth, bendy, waterproof, absorbent, opaque / transparent, compare, group		plant, vegetable, tree, deciduous, evergreen, leaf, root, trunk, stem, branch, flower, blossom, petal, fruit, bulb, seed, bud, wild, grow		fish, amphibian, reptile, bird, mammal, carnivore, herbivore, omnivore, head, scales, fins, tail, skin, eyes, mouth, arm, leg, fur, hair, beak, wing, feature, sense, taste, smell, sight, touch, hear, tongue, nose, eyes, fingers, ears, habitat, care	
	Seasonal Changes (to fit in across the year)					
	Pupils should be taught to: Observe changes across the four seasons; Observe and describe weather associated with the seasons and how day length varies					
Vocab	season, winter, spring, summer, autumn, observe, compare, weather, day length, sunlight, sun safety					
Year 2	Uses of Everyday Materials (2)	Living Things & Their Habitats (2)	Plants (2)		Animals, including Humans (2)	
	Pupils should be taught to: <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 	Pupils should be taught to: <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 describe how different habitats provide the basic needs of 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 micro-habitats Describe how animals obtain their food from plants and other animals, describing simple food chains and identifying different sources of food 	Pupils should be taught to: <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 		Pupils should be taught to: <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 	
Vocab	wood, metal, plastic, glass, brick, rock, paper, cardboard, use, purpose, change, compare, squash, bend, twist, stretch	living, dead, never been alive, category, classify, air, feeds, grows, reproduces, gets rid of waste, microhabitat, damp / wet / dry, dark / light, features, habitat, savannah, rainforest, tundra, food chain, food source, predator, Sun, seasons	Seed, bulb, mature plant, grow, healthy, conditions, water, light, warmth, germination, survival, reproduction		offspring, baby, adult, growth, survival, healthy, water, food, air, exercise, food groups, nutrition, diet, hygiene, egg, chick, chicken, caterpillar, pupa, butterfly, spawn tadpole, frog, lamb, sheep	

Year 3	States of Matter (4)	Light (3)	Plants (3)	Animals, inc. Humans (3)	Rocks & Fossils (3)
	<p>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 	<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>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 amounts of nutrition, and that they cannot make their own food; they get their nutrition from what they eat Identify that humans and some other animals have skeletons and muscles for support, protection and movement 	<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
Vocab	solid, liquid, gas, compare, change, heat, cool, temperature (°C), freeze, melt, evaporation, condensation, shape, container, water cycle, ice, steam, sublimation	light, darkness, see, reflect, surface, sunlight, dangerous, safety, protect, eyes, shadow, opaque, blocked, shadow pattern (size), mirror, transparent, translucent	structure, function, root, stem, trunk, leaf, life, growth, air, light, water, nutrients, soil, space, variety, water transport, flower, role, life-cycle, pollination, fruit, seed formation, seed dispersal	diet, nutrition, balance, ingest, health, protein, sugar, carbohydrate, fat, food pyramid, mineral, vitamin, fibre, skeleton, bone, support, protection, movement, muscle, push, pull, endoskeleton, exoskeleton	rock, group, sort, appearance, physical properties, living thing, fossilisation, fossil, mould, mineral, preserved, soil, organic matter, grains, crystals, igneous, sedimentary, metamorphic, acid, react, dissolve, inert
Year 4	Living Things & Their Habitats (4)	Electricity (4)	Animals, inc. Humans (4)	Sound (4)	Forces & Magnets (3)
	<p>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>Pupils should be taught to:</p> <ul style="list-style-type: none"> Identify common appliances that run on electricity Construct a simple series of electrical circuits, 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>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>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>Pupils should be taught to:</p> <ul style="list-style-type: none"> Compare how things move on different surfaces Notice that some forces need contact between two 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 two poles Predict whether two magnets will attract or repel each other, depending on which poles are facing
Vocab	organism, life processes, respiration, sensitivity, reproduction, excretion, nutrition, habitat, environment, species, endangered, extinct, change, key, classification, characteristic, vertebrate, invertebrate	electricity, appliance, series circuit, closed loop, component, cell, wire, bulb, switch, clip, buzzer, conductor, metal, insulator, safety, danger	function, digestive system, mouth, tongue, teeth, incisor, canine, molar, oesophagus, stomach, small intestine, large intestine, anus, food chain, producer, predator, prey, herbivore, carnivore (differences in dentition)	sound, vibration, object, travel, medium, ear, hearing, pitch, volume, strength, fainter, louder, distance, instrument, music	movement, surfaces, contact force, magnetic force (distance), attract, repel, magnetic, non-magnetic, material, north pole, south pole, magnetic field
Year 5	Light (6)	Animals, inc. Humans (5)	Earth & Space (5)	Properties & Changes of Materials (5)	Electricity (6)
	<p>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 cause them 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> Describe why living things need to reproduce Compare the human lifecycle to those of other animals Describe the physical and emotional changes at puberty Describe the changes as humans develop to old age 	<p>Pupils should be taught to:</p> <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 Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky 	<p>Pupils should be taught to:</p> <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 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 	<p>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
Vocab	straight lines, emit, source, reflection, eye, refraction, shadows, shape, periscope, puppet, rainbow, light dispersion, prism, refraction	life-cycle, changes, ageing, foetus, baby, toddler, child, puberty, teenager, adult, elderly, death	Solar system, Earth, planet, star, sun, moon, spherical body, orbit, movement, rotation, axis, day length, sky, light, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, dwarf planet, Ceres, Pluto, geocentric model, heliocentric model	hardness, solubility, transparency, conductivity (electrical & thermal), magnetic response, acid, dissolve, solution, mixture, separate, filter, sieve,	bulb, brightness, buzzer, volume, number / voltage of cells, compare, component, function, effect of switches, circuit diagram, symbols, electrical safety

				evaporate, reversible change, irreversible change, burning, corrode	
Year 6	Living Things & Their Habitats (5)	Animals, inc. Humans (6)	Forces (5)	Living Things & Their Habitats (6)	Evolution & Inheritance (6)
	<p>Pupils should be taught to:</p> <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 processes of reproduction in some plants and animals 	<p>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 lifecycle on the way their bodies function Describe the ways in which nutrients and water are transported within animals, including humans 	<p>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 	<p>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 	<p>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
Vocab	life-cycle, reproduction, plant, animal, mammal, amphibian, insect, bird, naturalists (Jane Goodall, David Attenborough), sexual, asexual, spawn, egg, hatch, live birth, complete or incomplete metamorphosis, instar, larva	circulatory system, function, heart, blood vessel, artery, vein, capillary, blood, diet, exercise, drugs, lifestyle, health, nutrient and water transport, harm, bodily damage	object, gravity, fall, Earth, attraction, air resistance, water resistance, friction, mechanism, lever, pulley, gear, greater / lesser effect of force	classification, characteristic, observe, similarity, difference, micro-organism, plant, animal, reasons, invertebrate, vertebrate, Carl Linnaeus	Living things, change, time, fossil, evidence, offspring, not identical, variation, adaptation, survival, evolution, Mary Anning, Charles Darwin, Alfred Wallace

 Physics

 Biology

 Chemistry

 Geology