	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
ANIMALS INCLUDING HUMANS	Health and Self care – children notice changes in their bodies after exercise such as heart beating faster. Children understand the importance of hand washing.	Identify and name a variety of common animals including, fish, 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.	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.	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.	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.	Describe the changes as humans develop from birth to old age.	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.
Key Vocabulary	Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, heart.	Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, reptile, amphibian, mammal, omnivore, carnivore, herbivore, all senses.	Offspring, grow, adults, nutrition, reproduce, survival, water, food, air, exercise, hygiene.	Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals	Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small, intestine, large intestine, rectum, anus, incisor, molar, canine, herbivore, omnivore	Penis, vagina, menstruation, ejaculation, wet dream, period, uterus, testicles, male, female, sexual reproduction, foetus, baby, child, adolescent, adult, elderly, breasts, mammal, fallopian tube, ovary, egg, sperm, semen.	Heart, pulse, rate, pump, blood, blood vessel, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs, lifestyle.

PLANTS	Make simple observations about plants and can explain why some things occur.	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.	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.	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.	See living things and their habitats.	See living things and their habitats.	See living things and their habitats.
Key Vocabulary	Plant, leaf, stem, flower, grow, rain, sun, water, soil, seed.	Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud.  Names of trees in local area, garden and wild flowering plants.	Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud.  Names of trees in local area, garden and wild flowering plants.  Light, shade, sun, warm, cool, water, grow, healthy.	Photosynthesis, pollen, insect/wind, seed formation, seed dispersal, wind dispersal, animal dispersal, water dispersal, pollen, roots, stem, trunk, leaves, absorb, nutrients, reproduce, germination, stamen, style.			

Living Things	Know about the similarities and differences between themselves and others, and among families, communities and traditions. They can talk about their own environment.  Show care and concern for living things and their environment.	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 for 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 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.	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.	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.	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.  Give reasons for classifying plants and animals based on specific characteristics.
Key Vocabulary		Living, dead, never been alive, suited, suitable, basic need, food, food chain, shelter, move, feed, names of local habitats e.g. pond, woodland, names of micro habitats e.g. under logs, in bushes.	Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate.	Lifecycle, mammal, amphibian, seed formation, insect, bird, pollination, life processes, plants, animals, reproduction, environment, dispersal, growth, living, eggs and seeds.	Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering and non- flowering.

					Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
EVOLUTION AND INHERITANCE					Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
EVOLUTION AN					Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
Key Vocabulary					Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils.
SEASONAL	Describe the weather outside and suggest what they might wear and what they might see. Comment on the environment e.g the leaves have fallen off or there is a puddle.	Observe changes across the 4 seasons. Observe and describe weather associated with the seasons and how day length varies.			
Key Vocabulary	Snow, wind, rain, sun, day, night, stormy, cloudy, hot, cold, foggy.	Spring, summer, autumn, winter, seasons, sun, wind, rain, snow, ice, leaves, fall, sunrise, sunser.			

(	,	)
	4	
ċ	Y	
ŀ		
١	4	(

Children can talk about why things happen and how they work.

Notice a change in properties as they are transformed through becoming wet, dry, flaky or fixed.

Encourage use of vocabulary for manipulation e.g. squeeze, prod.

**Everyday Materials** 

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.

Uses of Everyday Materials

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.

Rocks

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.

States of Matter

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.

Properties and Changes of Materials

> 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.

Key Vocabulary	Wet, dry, shiny, bendy, stiff, squashy, soft/hard, lumpy, wrinkly, smooth, rough.	Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see through, not see through.	material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, suitable, unsuitable, use, useful, hard/soft, stretchy, stiff, rigid, flexible, waterproof, absorbent, strong, weak, rough, smooth, transparent, opaque, shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching.	Rock, stone, pebble, boulder, grain, crystal, layers, hard, soft, texture, absorb, water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy, chalk, clay, soil, igneous, metamorphic, sedimentary.	Solid, liquid, gas, state, change, melting, freezing, boiling point, evaporation, condensation, precipitation, water vapour, temperature, water cycle, rain, hail, sleet, snow.	Thermal, electrical, insulator, conductor, change of state, mixture, solution, soluble, insoluble, filter, sieve, reversible, irreversible, change, burning, rusting, new material.	
D SPACE						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 AND SPACE						Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	
Key Vocabulary						Earth, sun, moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, spherical, solar system, rotates, star, planet, orbit, axis, day, night, season.	

LIGHT		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.	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.
Key Vocabulary		Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous.	Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous.

# Duddon St. Peter's School Science Progression of Knowledge

	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
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.
Key Vocabulary	Sound, source, vibrate, vibration, travel, pitch, volume, faint, loud, insulation.

Electricity		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.	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.
Key Vocabulary		Electrical appliance, mains, plug, circuit, component, cell, buzzer, battery, connect/connectors, crocodile clip, bulb, switch, motor, conductor, insulator, metal, symbol.	Circuit, complete circuit, circuit symbol, cell, battery, bulb, buzzer, motor, switch, voltage.

FORCES		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.	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.
Key Vocabulary		Force, push, pull, twist, contact force, non-contact force, magnetic force, magnet strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, metal, iron, steel, poles, north pole, south pole.	Force, gravity, Earth, air, resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys and gears.