Progression in Science Knowledge and Vocabulary at Chaddesley Corbett Primary School

Statements in red are from other linked National Curriculum topics

	Nursery (Birth to three)	Preschool (4-5)	Reception
Plants	• Explore natural materials, indoors and outside.	• Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things.	• Draw information from a simple map. (Reception – Living things and their habitats) • Explore the natural world around them. (Reception – Living things and their habitats) • Describe what they see, hear and feel whilst outside. (Reception – Living things and their habitats) • Recognise some environments that are different to the one in which they live. (Reception – Living things and their habitats) • Understand the effect of changing seasons on the natural world around them. (Reception – Seasonal changes) Early Learning Goal: • 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
Vocabulary	Plant, leaf, stem, flower, grow, rain, sun, water, soil, seed, air, roots, sow, life cycle, change		
Living things and their habitats	• Explore natural materials, indoors and outside.	• Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Begin to understand the need to respect and care for the natural environment and all living things.	• Draw information from a simple map. • Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Recognise some environments that are different to the one in which they live.
Vocabulary	natural, plant, animal, leaves, seeds, conkers, acorns, twigs, bark, shells, feathers, pebbles, stones, same, different, pattern, dark, wet, dry, hot, cold plant, tree, bush, flower, vegetable, fruit, herb, weed, animal, names of plants and animals they see, name of a contrasting environment (e.g. beach, forest), habitat		
Animals including humans	• Explore natural materials, indoors and outside.	• Use all their senses in hands-on exploration of natural materials.	• Talk about members of their immediate family and community.

	• Make connections between the features of their family and other families. • Notice differences between people.	• Begin to make sense of their own life-story and family's history. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things	• Name and describe people who are familiar to them. • Recognise some environments that are different to the one in which they live. Early Learning Goal: • Explore the natural world around them, making observations and drawing pictures of animals and plants.
Vocabulary	Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, heart, life cycle, insect, growth, change, shell, antennae, camouflage, symmetrical		
Evolution and Inheritance **Would this just be looking at our families?**	• Make connections between the features of their family and other families. • Notice differences between people.	• Begin to understand the need to respect and care for the natural environment and all living things. (Living things and their habitats)	• Recognise some environments that are different to the one in which they live. (Reception – Living things and their habitats)
Vocabulary			
Seasonal change		• Understand the key features of the life cycle of a plant and an animal. (Plants & Animals, excluding humans)	• Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Understand the effect of changing seasons on the natural world around them. Early Learning Goal • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter
Vocabulary	Snow, wind, rain, sun, ice, frost, day, night, stormy, cloudy, hot, cold, foggy, Spring, Summer, Autumn, Winter, conkers, acorns, pine cones, hibernation, melting, buds, catkins, blossom		
Materials	• Explore materials with different properties. • Explore natural materials, indoors and outside.	• Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about the differences between materials and changes they notice.	• Explore the natural world around them. • Describe what they see, hear and feel whilst outside.
Vocabulary	wet, dry, shiny, dull, bendy, stiff, squashy, hard, soft, lumpy, wrinkly. smooth, rough, thick, thin wood, metal, plastic, fabric, paper, cardboard,		
Rocks	• Explore materials with different properties. • Explore natural materials, indoors and outside.	• Use all their senses in hands-on exploration of natural materials. (Living things and their habitats) • Explore collections of materials with similar and/or different properties. (Living things and their habitats)	• Explore the natural world around them. (Reception – Living things and their habitats) • Describe what they see, hear and feel whilst outside. (Reception – Living things and their habitats)
Vocabulary	natural, shells, pebbles, stones		

Light	• Repeat actions that have an effect.	• Explore how things work. • Talk about the differences in materials and changes they notice	• Describe what they see, hear and feel whilst outside
Vocabulary **Not covered in current themes**	Smell, sound, sight, see, look, light, torch, bulb, lamp, spotlight, shiny, bright, brighter, brightest, Sun, shine, glow, mirror, Sun, sunny, light, shadow, shady, clouds, torch, see-through, not see-through, source, light source		
Forces	• Repeat actions that have an effect.	• Explore how things work. • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice.	• Explore the natural world around them. • Describe what they see, hear and feel whilst outside.
Vocabulary	Push, pull, twist, stretch, turn, open, lift, squeeze, pinch, flick, tap. float, sink		
Sound	• Repeat actions that have an effect.	• Explore how things work.	• Describe what they see, hear and feel whilst outside.
Vocabulary	sound, noise, loud, quiet, high, low, music, bang, blow, pluck, soft, hard, fast, slow, names of instruments, listen, hear, music, voices, bird song, traffic, sirens, thunder, high, low, loud, quiet, soft, volume, crackle, thunder, hum, buzz, roar		
Electricity	• Repeat actions that have an effect.	• Explore how things work.	
Vocabulary **Not covered in current themes**	battery, plug, socket, electricity, wire, sound, light, move		
Earth and Space	• Explore and respond to different natural phenomena in their setting and on trips.		• Explore the natural world around them. • Describe what they see, hear and feel whilst outside.
Vocabulary **Not covered in current themes**	Sun, Moon, Earth, star, planet, sky, day, night, space, round, bounce, float		

Plants (biology)

Year 1	Year 2	Year 3
Pupils will know how to: • 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.	Pupils will know how to: • 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 name a variety of plants and animals in their habitats, including microhabitats. (Y2 - Living things and their habitats)	Pupils will know how to: • 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.
Progression of Vocabulary		
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.	As year 1+ light, shade, sun, warn, cool, water, grow, healthy.	Photosynthesis, pollen, insect/wind pollination, seed formation, seed dispersal- wind dispersal, animal dispersal, water dispersal, pollen, roots, stem, trunk, leaves, absorb, nutrients, reproduce, germination, stamen, style.
Year 4	**Year 5**	**Year 6**
Pupils will know how to: • Recognise that living things can be grouped in a variety of ways. (Y4 - Living things and their habitats) • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Y4 - Living things and their habitats) • Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 - Living things and their habitats)	Pupils will know how to: • Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)	Pupils will know how to: • 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. (Y6 - Living things and their habitats) • Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)

Living things and their

Year 1	Year 2	Year 3
Pupils will know how to: • Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants) • Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants) • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans)	Pupils will know how to: • 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.	Pupils will know how to: • Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)

	• Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans) • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 – Animals, including humans) • Observe changes across the four seasons. (Y1 - Seasonal change)	• 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. • Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals including humans)	
	Progression of 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 etc.	
	Year 4	**Year 5**	**Year 6**
	Pupils will know how to: • 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. • Construct and interpret a variety of food chains, identifying producers, predators and prey. (Y4 - Animals, including humans)	Pupils will know how to: • 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	Pupils will know how to: • 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. • Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (Y6 - Evolution and inheritance) • Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (Y6 - Evolution and inheritance)
	Progression of Vocabulary		
	Classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate.	Lifecycle, mammal, amphibian, germination, seed formation, insect, bird, pollination, life processes, plants, animals, reproduction, environment, dispersal, growth, living, eggs, and seeds. Can dissect and label parts of flowering plant including male and female structures. Record finding as an annotated illustration of a flowering plant. Research and explain the life cycle and reproduction of a plant using scientific language.	Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering and non-flowering.

Animals including humans (biology)

Year 1	Year 2	Year 3
Pupils will know how to: • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	Pupils will know how to: • 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. • 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. (Y2 - Living things and their habitats)	Pupils will know how to: • 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.
Progression of Vocabulary		
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, survival, exercise.	Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, skull, ribs, spine, muscles, joints.
Year 4	**Year 5**	**Year 6**
Pupils will know how to: • 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.	Pupils will know how to: • Describe the changes as humans develop to old age. • Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats) • Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)	Pupils will know how to: • 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. • 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. (Y6 - Living things and their habitats) • Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)
Progression of Vocabulary		
Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, incisor, canine, herbivore, omnivore.	Puberty, vocabulary linked to describe a range of sexual characteristics.	Heart, pulse, rate, pumps, blood, blood vessel, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs, lifestyle.

Evolution and Inheritance (biology)

Year 1	Year 2	Year 3
Pupils will know how to:	Pupils will know how to: • 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. (Y2 - Living things and their habitats) • Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals, including humans)	Pupils will know how to: • Describe in simple terms how fossils are formed when things that have lived are trapped within rock. (Y3 - Rocks) • Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)
Progression of Vocabulary		
Year 4	**Year 5**	**Year 6**
Pupils will know how to: • Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 - Living things and their habitats)	Pupils will know how to: • Describe the life process of reproduction in some plants and animals. (Living things and their habitats - Y5)	Pupils will know how to: • 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.
Progression of vocabulary		
		Evolution, Offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils.

Seasonal Change (biology)

Year 1	Year 2	Year 3
Pupils will know how to: • Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies.	Pupils will know how to:	Pupils will know how to: • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Y3 - Light)
Progression of Vocabulary		
Weather (sunny, rainy, windy, snowy etc) Seasons (winter, summer, spring, autumn) sun, sunrise, sunset, Day length		
Year 4	**Year 5**	**Year 6**
Pupils will know how to:	Pupils will know how to: • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky. (Y5 - Earth and space)	Pupils will know how to:

	Progression of vocabulary		

	Year 1	Year 2	Year 3
Materials (chemistry)	**Everyday Materials** Pupils will know how to: • 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** Pupils will know how to: • 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 will know how to: • Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (Y3 - Rocks) • Describe in simple terms how fossils are formed when things that have lived are trapped within rock. (Y3 - Rocks) • 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. (Y3 - Forces and magnets)
	Progression of Vocabulary		
	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.	Names of materials: wood, plastic, glass, metal, water, rock, brick, paper, fabric, card, rubber, 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.	
	Year 4	**Year 5**	**Year 6**
	States of Matter Pupils will know how to: • 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. • Recognise some common conductors and insulators, and associate metals with being good conductors. (Y4 - Electricity)	**Properties and changes of Materials** Pupils will know how to: • 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	Pupils will know how to:

		reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	
	Progression of vocabulary		
	Solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle	Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/not reversible, change, burning, rusting, new material.	

Rocks (chemistry)			
	Year 1	**Year 2**	**Year 3**
	Pupils will know how to: • Distinguish between an object and the material from which it is made. (Y1 - Everyday materials) • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials) • Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials) • Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)	Pupils will know how to: • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of everyday materials)	Pupils will know how to: • 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.
	Progression of Vocabulary		
			Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb, water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil.
	Year 4	**Year 5**	**Year 6**
	Pupils will know how to:	Pupils will know how to:	Pupils will know how to: • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. (Y6 - Evolution and inheritance)
	Progression of vocabulary		

Light (physics)	Year 1	Year 2	Year 3
	Pupils will know how to: • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans) • Describe the simple physical properties of a variety of everyday materials. (Y1 - Materials)	Pupils will know how to:	Pupils will know how to: • 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.
	Progression of Vocabulary		
			Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous.
	Year 4	**Year 5**	**Year 6**
	Pupils will know how to:	Pupils will know how to: • 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. (Y5 - Properties and changes of materials)	Pupils will know how to: • 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.
	Progression of vocabulary		
			Year 3 vocabulary- Plus Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous.

Forces and Magnets (physics)

Year 1	Year 2	Year 3
Pupils will know how to:	Pupils will know how to: • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Uses of everyday materials)	Pupils will know how to: • 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.
Progression of Vocabulary		
		Force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel. Magnetic material, metal, iron, steel, poles, north pole, south pole.
Year 4	**Year 5**	**Year 6**
Pupils will know how to:	Pupils will know how to: • 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.	Pupils will know how to:
Progression of vocabulary		
	Force, Gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears.	

Sound (physics)	Year 1	Year 2	Year 3
	Pupils will know how to: • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)	Pupils will know how to:	Pupils will know how to:
	Progression of Vocabulary		
	Year 4	**Year 5**	**Year 6**
	Pupils will know how to: • 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.	Pupils will know how to:	Pupils will know how to:
	Progression of vocabulary		
	Sound, source, vibrate, vibration, travel, pitch, volume, faint, loud, insulation, Decibels.		

Electricity (physics)

Year 1	Year 2	Year 3
Pupils will know how to:	Pupils will know how to:	Pupils will know how to:
Progression of Vocabulary		
Year 4	**Year 5**	**Year 6**
Pupils will know how to: • 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.	Pupils will know how to:	Pupils will know how to: • 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.
Progression of vocabulary		
Electrical, appliance, mains, plug, circuit, component, cell, battery, positive, negative, connect/connectors, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol.		Circuit, complete circuit, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, switch, voltage NB Children do not need to understand what voltage is but will use volts and voltage to describe different batteries.

Earth and Space (physics)

Year 1	Year 2	Year 3
Pupils will know how to: • Observe changes across the four seasons. (Y1 – Seasonal changes) • Observe and describe weather associated with the seasons and how day length varies. (Y1 – Seasonal changes)	Pupils will know how to:	Pupils will know how to:
Progression of Vocabulary		
Year 4	**Year 5**	**Year 6**
Pupils will know how to:	Pupils will know how to: • 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.	Pupils will know how to:
Progression of vocabulary		
	Earth, sun, moon, Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune, Pluto (dwarf planet), spherical, solar system, rotates, star, orbit, planets, axis, night, day, season, galaxy. Meteorite.	