Science

EYFS Framework 2021

ELG: The Natural World	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.

EYFS Progression of Knowledge and Skills

- I can **identify** parts of the body.
- I can **state** the 5 senses.
- I can **state** the four seasons.
- I can **identify** features of the seasons.
- I can **use** torches to make observations about light and dark.
- I can **test** my theory based on my experiences.
- I can **identify** what a plant needs to grow.
- I can **state** the name of some well-known flowers.

Vocabulary:
Leg, arm, feet, head, body, smell, see, taste, touch, hear, seasons, Autumn, Winter, Spring, Summer, experiment, predict, root, stem, leaves, flower, daisy, buttercup, dandelion, rose

Year 1 National Curriculum- Working Scientifically

<u>Year 1</u>

Sc1/1 Working Scientifically

Sc1/1.1 asking simple questions and recognising that they can be answered in different ways
Sc1/1.2 observing closely, using simple equipment
Sc1/1.3 performing simple tests
Sc1/1.4 identifying and classifying
Sc1/1.5 using their observations and ideas to suggest answers to questions
Sc1/1.6 gathering and recording data to help in answering questions.

Progression of Knowledge and Skills

These are unit specific and appear in blue throughout the Progression of Knowledge and Skills for each unit.

Vocabulary:
Question, observe, test, identify, classify, answer, record, data, Venn diagram, chart, equipment, safety, measure

Year 1 National Curriculum- Plants

<u>Sc1/2.1 Plants</u>

Sc1/2.1a identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
Sc1/2.1b identify and describe the basic structure of a variety of common flowering plants, including trees

Progression of Knowledge and Skills

- To be able to identify and describe the basic structure of a variety of common plants including roots, stem/trunk, leaves and flowers.
- To be able to identify and name a variety of common plants.
- To be able to classify trees as deciduous and evergreen.

- To be able to observe closely.
- To be able to ask simple questions and recognise that they can be answered in different ways.
- To be able to observe carefully using simple equipment.
- To be able to use parts of the plant to identify and classify it.
- To be able to use simple features of a plant to sort and group them.
- To be able to ask simple questions and recognise the ways in which they can be answered.

Vocabulary:
Trees - deciduous, evergreen, ash, birch, beech, rowan, common lime, oak, sweet chestnut, horse chestnut, apple, willow, sycamore, fir, pine , holly, etc
Wild flowering plants - cleavers, coltsfoot, daisy, dandelion, garlic mustard, mallow, mugwort, plantain, red clover, self heal, shepherd's purse, sorrel, spear thistle, white campion, white deadnettle and yarrow.
Garden plants – crocus, daffodil, bluebells, etc
Parts of plants – roots, branch, trunk, stalk, leaf, flower, petal, seeds, bulbs and twigs

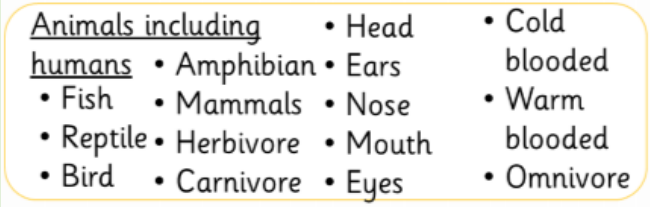
Year 1 National Curriculum- Animals Including Humans

Sc1/2.2 Animals including humans
Sc1/2.2a identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals
Sc1/2.2b identify and name a variety of common animals that are carnivores, herbivores and omnivores
Sc1/2.2c describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals
including pets)
Sc1/2.2d identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

Progression of Knowledge and Skills

- To be able to identify, name draw and label the basic parts of the human body.
- To know which part of the body is associated with each sense.
- To be able to describe and compare the structure of a variety of common animals.
- To be able to identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.
- To be able identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- To be able to describe and compare the structure of a variety of common animals.
- To be able to observe closely, using simple equipment.
- To be able to record data in a table.
- To be able to identify and name a variety of common animals that are birds, fish, amphibians, reptiles and mammals.
- To be able to use secondary sources to find out more about animals.
- To be able to sort and group animals with some help.
- To be able to sort and group animals with some help.
- To be able to sort and group animals with some help.
- To be able to record data in simple ways (Venn diagram).
- To be able to record data in simple ways (chart).

Vocabulary:
Birds, fish, amphibians, reptiles, mammals, invertebrates, feathers, scales, gills, fins, hair, land, water, backbone, skeleton, carnivores, herbivores, omnivores, meat, plants, common parts/structures of animals, names of animals that can be found in the school grounds, names of animals that the children keep as pets, names of common body parts.



SCIENCE: National Curriculum and Progression of Knowledge and Skills

Year 1 National Curriculum- Everyday Materials

<u>Sc1/3.1 Everyday materials</u>

Sc1/3.1a distinguish between an object and the material from which it is made
Sc1/3.1b identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
Sc1/3.1c describe the simple physical properties of a variety of everyday materials
Sc1/3.1d compare and group together a variety of everyday materials on the basis of their simple physical properties

Progression of Knowledge and Skills

- To be able to distinguish between an object and the material from which it is made.
- To be able to identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.
- To be able to describe the simple physical properties of a variety of everyday materials.
- To be able to compare and group together a variety of everyday materials on the basis of their physical properties.
- To be able to identify and classify.
- To be able to observe carefully, using simple equipment.
- To be able to ask simple questions and recognise that they can be answered in different ways.
- To be able to perform simple tests.
- To be able to record simple data in order to answer a question.
- To be able to make simple measurements with equipment (non-statutory).

Vocabulary:
Types of materials: wood, plastic, glass, metal, water, rock, brick, fabric, sand, paper, flour, butter, milk, soil
Properties of materials: hard/soft, stretchy/not stretchy, shiny/dull, rough/smooth, bendy/not bendy, transparent/not transparent, sticky/not sticky
Verbs associated with materials: crumble, squash, bend, stretch, twist
Senses: touch, see, hear, smell and taste

<u>Everyday materials</u>

• Wood	• Plastic	• Soft	• Natural
• Glass	• Brick	• Smooth	• Heavy
• Metal	• Rock	• Rough	• Properties
• Water	• Man-made	• fabric	• Water proof
		• light	

Year 1 National Curriculum- Seasonal Change

<u>Sc1/4.1 Seasonal Changes – Covered in stages across the whole year</u>

Sc1/4.1a observe changes across the 4 seasons
Sc1/4.1b observe and describe weather associated with the seasons and how day length varies.

Progression of Knowledge and Skills

- To be able to observe and describe weather associated with the seasons and how day length varies.
- To be able to observe changes across the four seasons.
- To be able to ask simple questions and recognise that they can be answered in different ways.
- To able to identify objects.
- To able to perform simple tests.
- To be able to observe closely, using simple equipment.
- To be able to gather and record data to help answer a question.

Vocabulary:
Seasons; spring, summer, autumn, winter, year, months, days, hot, warm, mild, cold, sunny, cloudy, rain, sleet, snow, hail, thunder, lightning, rainbow, wet, damp, dry, windy, breezy, gust, temperature, degrees Celsius, thermometer, weather vane

<u>Seasons</u>

• Day	• Night	• Spring	• Autumn
	• Length	• Summer	• Winter

<u>Autumn</u>	<u>Winter</u>	<u>Spring</u>	<u>Summer</u>
Leaves	Snow	Buds	Heat
Rain	Cold	Green	Hot
Wind	Frost	New life	Growth
Harvest	Ice	Tadpoles	Flower
Seeds	No leaves	Grow	Butterfly
Foliage	Evergreen	Flowers	Insects
Red	Frozen	Hatch	Birds
	Hibernate	Blossom	Grass

SCIENCE: National Curriculum and Progression of Knowledge and Skills

Year 2 National Curriculum- Working Scientifically

Year 2

Sc2/1 Working Scientifically

Sc2/1.1 asking simple questions and recognising that they can be answered in different ways
Sc2/1.2 observing closely, using simple equipment
Sc2/1.3 performing simple tests
Sc2/1.4 identifying and classifying
Sc2/1.5 using their observations and ideas to suggest answers to questions
Sc2/1.6 gathering and recording data to help in answering questions.

Progression of Knowledge and Skills

These are unit specific and appear in blue throughout the Progression of Knowledge and Skills for each unit.

Vocabulary:

Question, observe, test, identify, classify, answer, record, data, Venn diagram, chart, equipment, safety, measure

Year 2 National Curriculum- Living Things and Their Habitats

Sc2/2.1 Living things and their habitats

Sc2/2.1a explore and compare the differences between things that are living, dead, and things that have never been alive
Sc2/2.1b 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
Sc2/2.1c identify and name a variety of plants and animals in their habitats, including microhabitats
Sc2/2.1d 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.

Progression of Knowledge and Skills

- To be able to explore and compare the differences between things that are living, dead, and things that have never been alive.
- To be able 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.
- To be able to 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.
- To be able to identify and name a variety of plants and animals in their habitats, including micro-habitats.
- To be able to ask simple questions and recognise that they can be answered in different ways.
- To be able to observe closely.
- To be able to gather and record data to help answer a question.
- To be able to record data in a tally chart.
- To be able to record data in a bar chart.
- To be able to use observations to suggest answers to questions.
- To be able to observe using a microscope/hand lens.

Vocabulary:

Habitat, micro habitat
Pond, meadow, log pile, woodland, river, lake, beach, cliff
Organism – plant, animal
Trees - deciduous, evergreen, ash, birch, beech, rowan, common lime, oak, sweet chestnut, horse chestnut, apple, willow, sycamore, fir, pine , holly, etc
Wild flowering plants - cleavers, coltsfoot, daisy, dandelion, garlic mustard, mallow, mugwort, plantain, red clover, self heal, shepherd's purse, sorrel, spear thistle, white campion, white deadnettle and yarrow.

Living things and their habitats

- Life
- Death
- Growth
- Offspring
- Child
- Object
- Never been alive
- Minibeast
- Habitat
- Living space
- Pond
- Needs
- Depend
- Food chain
- Feeding
- Food source
- Farming
- Farm animal
- Fruit
- Vegetable
- Dairy
- Plants
- Provide
- Suited
- Eat
- Hunt
- Catch
- Prey
- Predator
- Human
- Meat

Garden plants – crocus, daffodil, bluebells, etc
Parts of plants – roots, branch, trunk, stalk, leaf, flower, petal, seeds, bulbs and twigs
Invertebrates – snail, slug, woodlouse, spider, beetle, fly, etc
Pond animals – pond skater, water slater, ramshorn snail, pond snail, leech, common frog, smooth newt, etc

Year 2 National Curriculum- Plants

Sc2/2.2 Plants
Sc2/2.2a observe and describe how seeds and bulbs grow into mature plants
Sc2/2.2b find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

Progression of Knowledge and Skills

- To be able to observe how bulbs grow into mature plants.
- To be able to observe and describe how seeds grow into mature plants.
- To be able to find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
- To be able to perform a simple test.
- To be able to recognise that questions can be answered in a range of ways.
- To be able to observe closely using simple equipment.
- To be able to sort objects using observable features.
- To be able to gather and record date to help in answering a question.
- To use their observations and ideas to suggest answers to questions.

Vocabulary:
Trees - deciduous, evergreen, ash, birch, beech, rowan, common lime, oak, sweet chestnut, horse chestnut, apple, willow, sycamore, fir, pine , holly, etc
Wild flowering plants - cleavers, coltsfoot, daisy, dandelion, garlic mustard, mallow, mugwort, plantain, red clover, self heal, shepherd's purse, sorrel, spear thistle, white campion, white deadnettle and yarrow.
Garden plants – crocus, daffodil, bluebells, etc
Parts of plants – roots, branch, trunk, stalk, leaf, flower, petal, seeds, bulbs and twigs
Need of plants – water, light, heat, temperature

Plants
- Leaf
- Stem
- Root
- Soil
- Flower
- Life
- Growth
- Light
- soil
- Transport
- Trunk
- Transport
- Life cycle
- Pollinators
- Seed
- Disperse
- Petal
- Pollination
- Nutrients

Year 2 National Curriculum- Animals Including Humans

Sc2/2.3 Animals including humans
Sc2/2.3a notice that animals, including humans, have offspring which grow into adults
Sc2/2.3b find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
Sc2/2.3c describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

Progression of Knowledge and Skills

- To know that animals, including humans, have offspring that grow into adults.
- To know that human offspring grow into adults.
- To be able to find out about and describe the basic needs of animals, including humans, for survival (water, food and air).
- To know the importance for humans of eating the right amounts of different types of food.
- To know the importance for humans of exercise.
- To know the importance to humans of hygiene.
- To be able to use observations to suggest answers to questions.

- To be able to record data (flow diagram).
- To be able to observe using simple equipment.
- To be able to record data (table).
- To be able to perform a simple test.
- To be able to record data (tally chart).

Vocabulary:
Classification - Birds, fish, amphibians, reptiles, mammals and invertebrates
Classification - Carnivores, herbivores, omnivores
Stages of growth of many insects – egg, larva, pupa, adult
Names of some invertebrates – ladybirds, butterflies, dragonflies, etc.
Names of some amphibians – smooth newt, common frog, toad
Stages of life –baby, toddler, child, teenager, adult
Life processes – growth, nutrition (feeding), respiration (breathing is part of this), movement, sensitivity, excretion, reproduction
Hygiene – clean, wash, germs
Foods – healthy, grow, strong, energy

Animals including humans
- Food
- Water
- Air
- Survival
- Healthy
- Eating
- Drinking
- Exercise
- Food
- Hygiene
- Teeth
- Brush
- Offspring
- Fruit
- Vegetables
- Grow
- Adults

Year 2 National Curriculum- Uses of Everyday Materials

Sc2/3.1 Uses of everyday materials
Sc2/3.1a identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for different uses
Sc2/3.1b compare how things move on different surfaces.
Sc2/3.1c find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Progression of Knowledge and Skills

- To be able 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.
- To be able to ask simple questions and recognise that they can be answered in different ways.
- To be able to use their observations and ideas to suggest answers to questions.
- To be able to gather and record data to help in answering questions.
- To be able to perform simple tests.
- To be able to gather and record data to help in answering questions.
- To be able to use simple measurements to gather data.
- To be able to use simple secondary sources to find answers).
- To be able to talk about what they have found out and how they found it out.
- To be able to, with help, notice relationships.

Vocabulary:
Types of materials: wood, plastic, glass, metal, water, rock, brick, fabric, sand, paper, flour, butter, milk, soil
Properties of materials: hard/soft, stretchy/not stretchy, shiny/dull, rough/smooth, bendy/not bendy, transparent/not transparent, sticky/not sticky
Verbs associated with materials: crumble, squash, bend, stretch, twist

Everyday materials
- Wood
- Glass
- Metal
- Water
- Plastic
- Brick
- Rock
- Man-made
- Soft
- Smooth
- Rough
- fabric
- light
- Natural
- Heavy
- Properties
- Water proof

Senses: touch, see, hear, smell and taste	

SCIENCE: National Curriculum and Progression of Knowledge and Skills

Year 3 National Curriculum - Working Scientifically

Sc3/1 Working Scientifically

Sc3/1.1 asking relevant questions and using different types of scientific enquiries to answer them

Sc3/1.2 setting up simple practical enquiries, comparative and fair tests

Sc3/1.3 making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

Sc3/1.4 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions

Sc3/1.5 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

Sc3/1.6 reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

Sc3/1.7 using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Sc3/1.8 identifying differences, similarities or changes related to simple scientific ideas and processes

Sc3/1.9 using straightforward scientific evidence to answer questions or to support their findings.

Progression of Knowledge and Skills

These are unit specific and appear in blue throughout the Progression of Knowledge and Skills for each unit.

Vocabulary:

Question, enquiry, compare, fair test, observe, measure, equipment, thermometer, data logger, record, classify, present, data, labelled diagram, keys, bar chart, table, conclusion, predict

Year 3 National Curriculum – Plants

Sc3/2.1 Plants

Sc3/2.1a identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers

Sc3/2.1b 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

Sc3/2.1c investigate the way in which water is transported within plants

Sc3/2.1d explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Progression of Knowledge and Skills

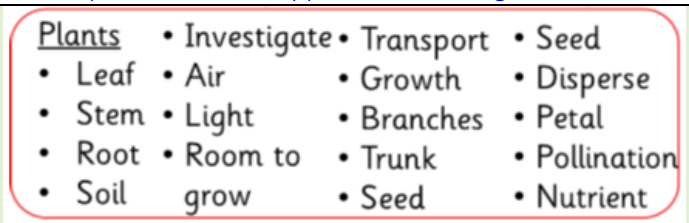
- To be able to identify and describe the function of the roots.
- To be able to investigate the ways in which water is transported within plants.
- To be able to identify and describe the function of the stem.
- To be able to identify and describe the function of the leaves.
- To be able to explore the requirements of plants for life and growth (air, light, water, nutrients from soil).
- To be able to identify and describe the function of the flower.
- To be able to set up a simple practical enquiry.
- To be able to make systematic and careful observations.
- To be able to gather and record data.
- To be able to use results to draw simple conclusions.
- To be able to use straightforward scientific evidence to answer questions or to support their findings.

Vocabulary:

Trees - deciduous, evergreen, ash, birch, beech, rowan, common lime, oak, sweet chestnut, horse chestnut, apple, willow, sycamore, fir, pine , holly, etc

Wild flowering plants - cleavers, coltsfoot, daisy, dandelion, garlic mustard, mallow, mugwort, plantain, red clover, self heal, shepherd's purse, sorrel, spear thistle, white campion, white deadnettle and yarrow.

Garden plants – crocus, daffodil, bluebells, etc



Parts of plants – roots, branch, trunk, stalk, leaf, flower, petal, seeds, bulbs and twigs **Parts of a flower** – petal, stamen (anther + filament), carpel (stigma + style + ovary + ovule) **Processes** – pollination, fertilisation, germination	

Year 3 National Curriculum – Animals Including Humans

<u>Sc3/2.2 Animals including humans</u>

Sc3/2.2a 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

Sc3/2.2b identify that humans and some other animals have skeletons and muscles for support, protection and movement.

Progression of Knowledge and Skills

- To know that animals cannot make their own food.
- To know that animals, including humans, need the right amounts and types of food.
- To know the ways in which nutrients and water are transported within animals, including humans.
- To know that humans and some animals have skeletons and muscles for support, protection and movement.
- To be able to record using drawings.
- To be able to report on findings from enquiries.
- To be able to use evidence to answer questions.
- To be able to set up a comparative test.
- To be able to record data in a table.
- To be able to identify the correct type of enquiry to answer a question.
- To be able to record data in a scatter graph.

Vocabulary: Nutrition Diet Vitamins, minerals, fats, proteins and carbohydrates Functions of skeletons – protect, support and aid movement	

Year 3 National Curriculum - Rocks

<u>Sc3/3.1 Rocks</u>

Sc3/3.1a compare and group together different kinds of rocks on the basis of their appearance and simple physical properties

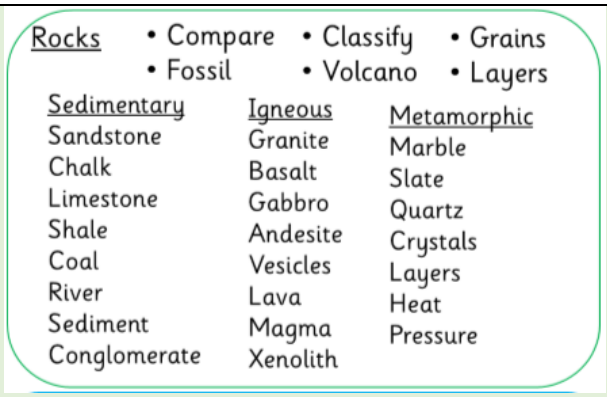
Sc3/3.1b describe in simple terms how fossils are formed when things that have lived are trapped within rock

Sc3/3.1c recognise that soils are made from rocks and organic matter.

Progression of Knowledge and Skills

- To be able to compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.
- To be able to recognise that soils are made from rocks and organic matter.
- To be able to make careful observations.
- To be able to set up simple comparative tests.
- To be able to measure using beakers and syringes.
- To be able to present information in a branching key.

Vocabulary:
Names of rocks – Chalk, limestone, granite, basalt, sandstone, flint, slate, shale, marble
Types of rock – Sedimentary, metamorphic, igneous
Types of minerals – Calcite, feldspar, diamond, talc, corundum
Properties of rocks – Hard/soft, permeable/impermeable
Processes – Heat, pressure, erosion, transportation, deposition, melt, solidify
Early areas of land –Pangea
Land formations – Plates, volcanoes, mountains, valleys
Size of rocks – Grain, pebbles
Rock describing words – Crystals, layers



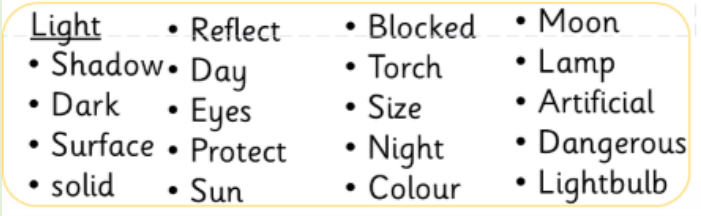
Year 3 National Curriculum - Light

Sc3/4.1 Light
Sc3/4.1a recognise that they need light in order to see things and that dark is the absence of light
Sc3/4.1b notice that light is reflected from surfaces
Sc3/4.1c recognise that light from the sun can be dangerous and that there are ways to protect their eyes
Sc3/4.1d recognise that shadows are formed when the light from a light source is blocked by a solid object
Sc3/4.1e find patterns in the way that the size of shadows change.

Progression of Knowledge and Skills

- To understand light is reflected to from surfaces towards the eye.

Vocabulary:
Bulb
Lamp
Natural light sorce: Sun
Reflect
Pattern
Change
Movement



Year 3 National Curriculum – Forces and Magnets

Sc3/4.2 Forces and Magnets
Sc3/4.2a compare how things move on different surfaces
Sc3/4.2b notice that some forces need contact between 2 objects, but magnetic forces can act at a distance
Sc3/4.2c observe how magnets attract or repel each other and attract some materials and not others
Sc3/4.2d 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
Sc3/4.2e describe magnets as having 2 poles
Sc3/4.2f predict whether 2 magnets will attract or repel each other, depending on which poles are facing.

Year 3 Progression of Knowledge and Skills

- To be able to compare how things move on different surfaces.
- To be able to 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.
- To be able to notice that some forces need contact between two objects, but magnetic forces can act at a distance.
- To be able to predict whether two magnets will attract or repel each other, depending on which poles are facing.
- To be able to observe how magnets attract or repel each other and attract some materials and not others.
- To be able to describe magnets as having two poles.
- To be able to set up a simple fair-test.

- To be able to record findings in a bar chart.
- To be able to identify changes related to scientific ideas.
- To be able to use results to draw simple conclusions.
- To be able to provide an oral explanation of findings.
- To be able to make systematic and careful observations.

Vocabulary:
Magnets – bar and horseshoe
Attract, repel
North and south poles
Magnetic
Magnetic field

Forces and magnets

- Push
- Pull
- Turn
- float
- Sink
- Attract
- Repel
- 2 poles
- Surface
- Contact
- Distance
- North
- South
- Magnetic field
- Predict
- Materials
- Metals

Year 4 National Curriculum – Working Scientifically

Sc4/1 Working Scientifically

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

Sc4/1.1 asking relevant questions and using different types of scientific enquiries to answer them

Sc4/1.2 setting up simple practical enquiries, comparative and fair tests

Sc4/1.3 making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

Sc4/1.4 gathering, recording, classifying and presenting data in a variety of ways to help in answering questions

Sc4/1.5 recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

Sc4/1.6 reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

Sc4/1.7 using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Sc4/1.8 identifying differences, similarities or changes related to simple scientific ideas and processes

Sc4/1.9 using straightforward scientific evidence to answer questions or to support their findings.

Progression of Knowledge and Skills

These are unit specific and appear in blue throughout the Progression of Knowledge and Skills for each unit.

Vocabulary:

Year 4 National Curriculum – All Living Things

Sc4/2.1 All Living Things

Sc4/2.1a recognise that living things can be grouped in a variety of ways

Sc4/2.1b explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment

Sc4/2.1c recognise that environments can change and that this can sometimes pose dangers to living things.

Progression of Knowledge and Skills

- To be able to recognise that living things can be grouped in a variety of ways.
- To be able to explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.
- To be able to recognise that environments can change and that this can sometimes pose dangers to living things.
- To be able to gather, record, classify and present data in a variety of ways to help in answering questions.
- To be able to report on findings from enquiries, including oral and written explanations.

Vocabulary:

Habitat, micro habitat

Pond, meadow, log pile, woodland, river, lake, beach, cliff

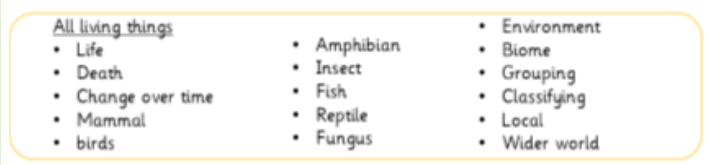
Organism – plant, animal

Trees - deciduous, evergreen, ash, birch, beech, rowan, common lime, oak, sweet chestnut, horse chestnut, apple, willow, sycamore, fir, pine , holly, etc

Wild flowering plants - cleavers, coltsfoot, daisy, dandelion, garlic mustard, mallow, mugwort, plantain, red clover, self heal, shepherd's purse, sorrel, spear thistle, white campion, white deadnettle and yarrow.

Garden plants – crocus, daffodil, bluebells, etc

Parts of plants – roots, branch, trunk, stalk, leaf, flower, petal, seeds, bulbs and twigs



Invertebrates – snail, slug, woodlouse, spider, beetle, fly, etc **Pond animals** – pond skater, water slater, ramshorn snail, pond snail, leech, common frog, smooth newt, etc	

Year 4 National Curriculum – Animals Including Humans

Sc4/2.2 Animals including humans

Sc4/2.2a describe the simple functions of the basic parts of the digestive system in humans

Sc4/2.2b identify the different types of teeth in humans and their simple functions

Sc4/2.2c construct and interpret a variety of food chains, identifying producers, predators and prey.

Progression of Knowledge and Skills

- To be able to describe the simple functions of the basic parts of the digestive system in humans.
- To be able to identify the different types of teeth in humans and their simple functions.
- To be able to record findings using labelled diagrams.
- To be able to use written explanations to report on findings from an enquiry.
- To be able to identify the correct type of enquiry to answer a question.
- To be able to set up a comparative test.
- To be able to use evidence to support findings.

Vocabulary:
Digestive system –, oesophagus, stomach, acid, small intestine
Protein, vitamin, mineral, carbohydrate, fats, energy, growth, repair. Saliva
Teeth – Incisors, canines, premolars, molars
Function
Foodchain – producer, consumer, predator, prey

Animals including humans
- Digestive system
- Small Intestine
- Large Intestine
- Stomach
- Mouth
- Oesophagus
- Liver
- Rectum
- Nutrition
- Growth
- Salivary gland
- Chew
- Predator
- Prey
- Food chain
- Gum
- Enamel
- Molars
- Premolars
- Incisor
- Canine
- "Baby teeth"
- Deciduous teeth
- Bone
- Root
- Crown

Year 4 National Curriculum – States of Matter

Sc4/3.1 States of Matter

Sc4/3.1a compare and group materials together, according to whether they are solids, liquids or gases

Sc4/3.1b 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)

Sc4/3.1c identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Progression of Knowledge and Skills

- To be able to compare and group materials together, according to whether they are solids, liquids or gases.
- To be able to 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).
- To be able to identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
- To be able to set up a fair test.
- To be able to set up a simple test.
- To be able to use results to draw simple conclusions.
- To be able to use a data logger to take accurate measurements.
- To be able to use a thermometer to take accurate measurements.
- To be able to provide a written explanation.
- To be able to use straightforward scientific evidence to answer questions or to support their findings.

Vocabulary:
States of matter - Solid, liquid and gas
Examples of gases (at room temperature and pressure) – Oxygen, hydrogen, helium, carbon dioxide, methane
Examples of liquids (at room temperature and pressure) – Water, milk, juice, petrol, oil
Examples of solids (at room temperature and pressure) –Wood, rocks, metal, plastic, glass, wool, leather, etc **Processes –** Melting, condensation, evaporation, solidifying, freezing
Water cycle
Water vapour
Steam
Cooling
Heating

States of matter
- Observe
- Solid
- Liquid
- Gas
- Grouping
- Heat
- Cool
- melt
- Freeze
- Measure
- Celsius (°C)
- Evaporation
- Condensation
- Water cycle
- Temperature
- Deposition
- River
- land
- Sea
- Solidify
- Condense
- Boiling
- Water vapour
- Steam
- Change of state
- Particles

Year 4 National Curriculum – Sound

Sc4/4.1 Sound
Sc4/4.1a identify how sounds are made, associating some of them with something vibrating
Sc4/4.1b recognise that vibrations from sounds travel through a medium to the ear
Sc4/4.1c find patterns between the pitch of a sound and features of the object that produced it
Sc4/4.1d find patterns between the volume of a sound and the strength of the vibrations that produced it.
Sc4/4.1e recognise that sounds get fainter as the distance from the sound source increases.

Progression of Knowledge and Skills

- To be able to identify how sounds are made, associating some of them with something vibrating.
- To be able to recognise that vibrations from a sound travel through a medium to the ear.
- To be able to find patterns between the pitch of a sound and features of the object that produced it.
- To be able to find patterns between the volume of a sound and the strength of the vibrations that produced it.
- To be able to recognise that sounds get fainter as the distance from the sound source increases.
- To be able to use a scientific enquiry to answer a question.
- To be able to set up a simple practical enquiry.
- To be able to make systematic and careful measurements with a data logger.
- To be able to report on findings from an enquiry.
- To be able to identify differences, similarities or changes related to simple scientific ideas.
- To be able to set up simple fair tests.

Vocabulary:
Parts of the ear – Cochlea, Auditroy cannal, ear lobe, ear cannal, ear drum, pinna
Audio, Auditory

Sound
- Vibrating
- Vibration
- Travel
- Medium
- Ear
- Ear drum
- Patterns
- Pitch
- Tone
- Strength
- Faint
- Distance
- Source of sound
- Speed of light
- Volume
- String
- percussion
- Insulate
- Brass
- woodwind
- Air
- features
- Solid
- Dense
- Production
- Speaker

Year 4 National Curriculum – Electricity

Sc4/4.2 Electricity
Sc4/4.2a identify common appliances that run on electricity
Sc4/4.2b construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs,

switches and buzzers
Sc4/4.2c 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
Sc4/4.2d recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
Sc4/4.2e recognise some common conductors and insulators, and associate metals with being good conductors.

Progression of Knowledge and Skills

- To be able to identify common appliances that run on electricity.
- To be able to construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
- To be able to 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.
- To be able to recognise some common conductors and insulators, and associate metals with being good conductors.
- To be able to recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.
- To be able to set up a simple practical enquiry.
- To be able to record findings using drawings.
- To be able to use results to make predictions.

Vocabulary:
Simple circuit
Appliances: fridge, freezer, TV, computer, iron, kettle, etc.
Series circuit
Components: battery, bulb (lamp), bulb (lamp) holder, buzzer, crocodile clip, leads, wires, switch
Describing words: brighter, duller, slow, fast, quiet, loud
Conductor, insulator
Effects of electricity: Light, sound, movement, heat
Switches – open, close

Electricity
- Appliance
- Construct
- Simple
- Series
- Circuit
- Cells
- Battery
- wires
- Bulb
- Switches
- Buzzers
- Motors
- Lamp
- Light
- Complete loop
- Open switch
- Closed switch
- Common conductor
- Insulate
- Metal
- Cooper
- Iron
- Diagram
- Power
- Nikola Tesla
- Michael Faraday

Year 5 National Curriculum – Working Scientifically

Sc5/1 Working Scientifically

Sc5/1.1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

Sc5/1.2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision

Sc5/1.3 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs

Sc5/1.4 using test results to make predictions to set up further comparative and fair tests

Sc5/1.5 reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations

Sc5/1.6 identifying scientific evidence that has been used to support or refute ideas or arguments.

Progression of Knowledge and Skills

These are unit specific and appear in blue throughout the Progression of Knowledge and Skills for each unit.

Vocabulary:

Year 5 National Curriculum – Living Things and their Habitats

Sc5/2.1 Living Things and their habitats

Sc5/2.1a describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird

Sc5/2.1b describe the life process of reproduction in some plants and animals.

Progression of Knowledge and Skills

- To be able to explain the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- To be able to describe the life process of reproduction in some plants and animals.
- To be able to plan the correct enquiry to answer a question.
- To be able to recognise which secondary sources will be most useful to their research (non-statutory).
- To be able to use scientific diagrams and labels.
- To be able to explain findings.

Vocabulary:

Anther
Stamen
Stigma
Filament
Pollinator
Style
Ovary

Living things and their habitats

- Life
- Death
- Life cycle
- Environment
- Reproduction
- Respiration
- Excrete
- Growth
- Nutrition
- Offspring
- Mammal
- Amphibian
- Bird
- Insect
- Reptile
- Fish
- Classify
- Plants
- Seed
- Change over time
- Microorganism
- Health
- Adaptation
- Similarities
- differences

Year 5 National Curriculum – Animals Including Humans

Sc5/2.2 Animals, including humans

Sc5/2.2a describe the changes as humans develop to old age.

Progression of Knowledge and Skills

- To be able to describe the changes as humans develop from birth to old age.
- To be able to raise different types of questions (non-statutory).
- To be able to communicate data using a scatter graph.
- To be able to present conclusions.
- To be able to use evidence to refute or support an idea.
- To be able to record data within tables.
- To be able to record data using line graphs.

Vocabulary:	
Ovary Gestation Adulthood	Animals including humans • Life • Death • Change over time • Foetus • Gestation • Toddler • Teenager • Elderly • Growth • Embryo • Height • Development • Puberty • Mass • Baby • Womb

Year 5 National Curriculum – Properties and Changes of Materials

Sc5/3.1 Properties and Changes of Materials

Sc5/3.1a 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

Sc5/3.1b know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution

Sc5/3.1c use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

Sc5/3.1d give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic

Sc5/3.1e demonstrate that dissolving, mixing and changes of state are reversible changes

Sc5/3.1f 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.

Progression of Knowledge and Skills

- To be able to compare and group together everyday materials based on evidence from comparative and fair tests, including their conductivity of heat.
- To be able to understand that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.
- To be able to use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
- To be able to give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
- To be able to demonstrate that dissolving, mixing and changes of state are reversible changes.
- To be able to 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.
- To take accurate measurements using a data-logger.
- To be able to measure accurately using a thermometer.
- To be able to record data in a line graph.
- To be able to use test results to make predictions to set up further comparative and fair tests.
- To be able to report and present findings from enquiries, including conclusions, causal relationships and explanations.
- To be able to plan a scientific enquiry that will answer a question.
- To be able to recognise control variables when planning a fair-test.
- To be able to evaluate an enquiry in terms of the amount of trust one can have in it.

Vocabulary:	
Thermal conductivity – thermal conductor, thermal insulator **Electrical conductivity** – electrical conductor, electrical insulator **Dissolving** – Solvent, solution, solute, soluble, insoluble, solid, liquid, particles, suspensions	Materials • Hardness • Solubility • Transparency • Conductivity • Reversible change • Irreversible change • Evaporation • Dissolving • Mixing • Water • Fluid • Change • Magnetic • Filter • Solids • Liquids • Gases • Solution • Separate • Hardens • Properties • Thermal • Temperature • Chemical • Particles • Chains

Separating materials – Sieve, filter, evaporate, condense	

Year 5 National Curriculum – Earth and Space

<u>Sc5/4.1 Earth and Space</u>

Sc5/4.1a describe the movement of the Earth, and other planets, relative to the Sun in the solar system
Sc5/4.1b describe the movement of the Moon relative to the Earth
Sc5/4.1c describe the Sun, Earth and Moon as approximately spherical bodies
Sc5/4.1d use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky.

Progression of Knowledge and Skills

- To be able to describe the movement of the Earth, and other planets, relative to the Sun in the solar system.
- To be able to describe the Sun, Earth and Moon as approximately spherical bodies.
- To be able to describe the movement of the Moon relative to the Earth.
- To be able to use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.
- To be able to plan a scientific enquiry to answer a question.
- To be able to report a presentation of an explanation.

Vocabulary:
Weight
NASA
Mass
ESA

<u>Earth and space</u>

- Planet
- Solar system
- Spherical
- Axis
- Universe
- Star
- Sun
- Rotation
- Mercury
- Venus
- Earth
- Mars
- Jupiter
- Saturn
- Uranus
- Neptune
- Pluto
- Eclipse
- Phase
- Moon
- Comet
- Wobble
- Tilt
- Eccentricity
- Orbit
- Stephen hawking

Year 5 National Curriculum - Forces

<u>Sc5/4.2 Forces</u>

Sc5/4.2a explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
Sc5/4.2b identify the effects of air resistance, water resistance and friction, that act between moving surfaces
Sc5/4.2c recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect

Progression of Knowledge and Skills

- To be able to explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- To be able to identify the effects of air resistance, water resistance and friction, that act between moving surfaces.
- To be able to recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.
- To be able to identify scientific evidence that has been used to support or refute ideas or arguments.
- To be able to take repeated accurate measurements using a stopwatch, ruler and newton meter
- To be able to explain the degree of trust in results.
- To be able to explain how a method or approach taken
- To be able to plan aspects of an investigation
- To be able to use test results
- To make predictions to set up further fair-tests.
- To be able to plan a fair-test; identifying the control variables.

Vocabulary: Mass Weight Newton's Laws Acceleration	Forces • Push • Pull • Object • Gravity • Air resistance • Water resistance • Fluid dynamic • Aerodynamic • Friction • Mechanism • Pulley • Gears • Leavers • Magnetic • Motion • Float • sink • Displacement • Accelerate • Newtons • Newton meter • Isaac Newton • Gallelio Galilei • Stop • Break • spring

Year 6 National Curriculum – Working Scientifically

Sc6/1 Working Scientifically

During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

Sc6/1.1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

Sc6/1.2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision

Sc6/1.3 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs

Sc6/1.4 using test results to make predictions to set up further comparative and fair tests

Sc6/1.5 using simple models to describe scientific ideas

Sc6/1.6 reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations

Sc6/1.7 identifying scientific evidence that has been used to support or refute ideas or arguments.

Progression of Knowledge and Skills

These are unit specific and appear in blue throughout the Progression of Knowledge and Skills for each unit.

Vocabulary:

Year 6 National Curriculum – Living Things and their Habitats

Sc6/2.1 Living Things and their habitats

Sc6/2.1a 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

Sc6/2.1b give reasons for classifying plants and animals based on specific characteristics.

Progression of Knowledge and Skills

- To be able 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.
- To be able to give reasons for classifying plants and animals based on specific characteristics.
- To be able to make a key to classify plants.
- To be able to identify scientific evidence that has been used to support or refute ideas or arguments.

Vocabulary:
Animal kingdom
Class
Phylum
Categories

Living things
- Classify
- Observe
- Group
- Similarities
- differences
- Cell
- Micro-organism
- Plants
- Animals
- characteristics
- Vertebrates
- Invertebrate
- Carl Linnaeus
- Anthropods
- Cephalopods
- Exoskeleton

Year 6 National Curriculum – Animals Including Humans

Sc6/2.2 Animals including humans

Sc6/2.2a identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

Sc6/2.2b recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

Sc6/2.2c describe the ways in which nutrients and water are transported within animals, including humans.

Progression of Knowledge and Skills

- To be able to plan pattern-seeking enquiry.
- To be able to report causal relationships.
- To be able to record results using a line graph.
- To be able to present findings from enquiries.

Vocabulary:
Circulatory system – heart, blood, veins, arteries, pulse, clotting
Diet – balanced, vitamins, minerals, proteins, carbohydrates, sugars, fats
Drugs – caffeine, nicotine, alcohol, cannabis, cocaine, heroine
Lifestyle – healthy

Animals and humans
- Oxygenated blood
- Deoxygenated blood
- Life cycle
- Heart
- Pump
- Blood
- Lungs
- body
- Circulate
- Circulatory system
- Respiratory system
- Life
- Death
- Function
- Blood vessel
- Artery
- Vein
- Chamber
- Absorb
- Nutrition
- Intestines
- Exercise
- Diet
- Transported
- Digestion
- effects

Year 6 National Curriculum – Evolution and Inheritance

Sc6/2.3 Evolution and inheritance

Sc6/2.3a recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

Sc6/3.2b recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

Sc6/2.3c identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Progression of Knowledge and Skills

- To be able 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.
- To be able to recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
- To be able to identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
- To be able to identify scientific evidence that has been used to support or refute ideas or arguments.
- To be able to plan an enquiry that will answer a question.
- To be able to record data in a table.
- To be able to measure with a data logger.
- To be able to present findings from an enquiry.
- To be able to recognise the value of fossil evidence.
- To make links to important scientists

Vocabulary:
Evolution, evolve
Natural selection
Survival
Reproduction
Offspring, parents, siblings
Environment
Variation
Fossils; ammonites, belemnites, micrasters, etc

Evolution and adaptation
- Evolve
- Evolution
- Fossil
- Evidence
- Change over time
- Extinction
- Family tree
- (Common) Ancestor
- Identical
- Non-identical
- DNA
- Deoxyribose Nucleic Acid
- Genes
- Genetics
- Inherited
- Non-inherited
- Environment
- Physical
- Trait
- Charles Darwin
- Cell
- Offspring
- Finches

Year 6 National Curriculum – Light

Sc6/4.1 Light

Sc6/4.1a recognise that light appears to travel in straight lines

Sc6/4.1b 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

Sc6/4.1c 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

Sc6/4.1d 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 Knowledge and Skills

- To recognise that light appears to travel in straight lines.
- To be able to 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.
- To be able to 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.
- To be able to use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
- To be able to use scientific evidence to support or refute an idea.
- To be able to use test results to make predictions to set up further comparative tests.
- To be able to plan a fair-test; recognising and controlling variables.
- To be able to plan a scientific enquiry to answer a questions.
- To be able to report as to the degrees of trust in results.

Vocabulary:
Simple comparisons: dark, dull, bright, very bright
Comparative vocabulary: brighter, duller, and darker
Superlative vocabulary: brightest, dullest, and darkest
Opaque, translucent, transparent
Shadow – block, absence of light
Reflect – bounce, mirror, reflection
See – light source
Sun – sunset, sunrise, position

Light
- Shadow
- Reflect
- Refract
- Colour
- Straight lines
- Sources
- Emit
- Transport
- Photon
- Object
- Direction
- Ray of light
- Absorb
- Opaque
- Transparent
- Translucent
- Material
- Angle of reflection
- Angle of incidence
- Convex
- Concave
- Mirror
- Plane of reflection
- Lenses
- Optics
- Fibre optics

Year 6 National Curriculum – Electricity

Sc6/4.2 Electricity
Sc6/4.2a associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
Sc6/4.2b 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
Sc6/4.2c use recognised symbols when representing a simple circuit in a diagram

Progression of Knowledge and Skills

- To be able to use recognised symbols when representing a simple circuit in a diagram.
- To be able to associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
- To be able to 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.
- To be able to take repeat measurements of data with precision using a data-logger.
- To be able to explain the degree of trust can be had in results.
- To be able to plan a fair-test by recognising the control variables.
- To be able to use predictions to set up fair tests.

Vocabulary: Electricity, Volts Series circuit **Components**: battery, bulb (lamp), bulb (lamp) holder, buzzer, crocodile clip, leads, wires, switch **Describing words**: brighter, duller, slow, fast, quiet, loud Conductor, insulator Resistance **Effects of electricity**: Light, sound, movement, heat	Electricity • Wires • Cell • Battery • Plug • Switch • Buzzer • Motor • Solar power • Circuit • Simple circuit • Series circuit • Parallel circuit • Bulb • Diagram • Power • Volts • Amps • Current • Conduct • Conductivity • Negative terminal • Positive terminal • Generate • Resistance