Science Curriculum Map



The National Curriculum states that:

"A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes."

Stramongate School – Science

Intent

At Stramongate, it is our intention that we provide every child with a solid foundation in scientific skills and that we seek to build every child's love of science through high quality scientific experiences that ignite their curiosity and encourage them to confidently explore and discover the world around them. Additionally, we want them to acquire specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and also an understanding of the uses and implications of Science, today and for the future. Through our practical and enjoyable curriculum, we aim to inspire and excite our children and foster a thirst for knowledge. In addition, the teaching of science will promote and develop transferable skills such as observation, communication and teamwork and allow mathematical skills to be applied. By providing these opportunities, we ensure that our children are motivated, confident, life-long learners who will continue to explore the world around them, way beyond their time at primary school.

Implementation

- Our curriculum is underpinned by our vision and ethos of: Be kind, work hard and discover the curriculum for each year group is carefully designed to ensure coverage and progression across all topic areas. Everyone at Stramongate School is encouraged to improve through our curriculum and to show respect, perseverance, self-belief and have pride in all that they do; to experience real life contexts and embed these in memorable learning journeys, and to enjoy school life.
- Clear and comprehensive lessons in line with the National Curriculum through a range of schemes.
- Teaching and learning shows progression across lessons and are built upon in all key stages within the strands of Science.
- Teachers introduce and embed scientific vocabulary to support 'talking like a scientist' and that children readily apply this to their written, mathematical and verbal communication of their skills.
- A low stakes quiz/recap at the start of lessons which support learners' ability to block learning and increase space in the working memory.

- Children will be able to build on prior knowledge and link ideas together, enabling them to question and become enquiry-based learners.
- Pupils to be encouraged to be confident and ask questions, not to be afraid of getting it wrong but instead, seeing it as an opportunity to learn.

- Attainment will be assessed each half term through related topic assessment tasks
- Children get access to being taught by real scientists e.g. electricity STEM day.
- School grounds are used as a resource.
- Trips and visits from experts who will enhance the learning experience.

Impact

- We aim for every child to leave Stramongate with an understanding and love of science which they can carry with them for the rest of their lives.
- Children will achieve age related expectations or better in Science at the end of their cohort year.
- Children will retain knowledge that is pertinent to Science.
- Through a hands-on, inquiry based curriculum, children will overcome barriers to learning and experience the joy of exploration and investigation and having wonderful ideas.

- Children will work collaboratively and practically to investigate and experiment.
- Children will be able to explain the process they have taken and be able to reason scientifically.
- Children will recognise and apply key scientific vocabulary.
- The teaching of science will promote and develop transferable skills such as observation, communication, teamwork and allow mathematical skills to be applied.
- Opportunities for improved well-being and confidence will be increased.
- Children will have heightened awareness of scientific opportunities available in the wider world and the possibility of accessing them.

National Curriculum Content

KS1

Working scientifically:

- Asking simple questions and recognising that they can be answered in different ways.
- Observing closely, using simple equipment.
- Performing simple tests.
- Identifying and classifying.
- Using their observations and ideas to suggest answers to questions.
- Gathering and recording data to help in answering questions.

Year 1 National Curriculum Content

Plants

- 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.

Animals, including humans

- 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.

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.

Seasonal changes

- Observe changes across the 4 seasons.
- Observe and describe weather associated with the seasons and how day length

Year 2 National Curriculum Content

Living things and their habitats

- 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.

Plants

- 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.

Animals, including humans

- 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.

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.

Lower KS2

Working scientifically:

- Asking relevant questions and using different types of scientific enquiries to answer them.
- Setting up simple practical enquiries, comparative and fair tests.
- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.
- Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
- Identifying differences, similarities or changes related to simple scientific ideas and processes.
- Using straightforward scientific evidence to answer questions or to support their findings.

Year 3 National Curriculum Content

Plants

- 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

Animals, including humans

- 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.

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.

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.

Forces and magnets

- 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

Year 4 National Curriculum Content

Living things and their habitats

- 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.

Animals, including humans

- 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.

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.

Sound

- 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.

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.

Upper KS2

Working scientifically:

- Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- Using test results to make predictions to set up further comparative and fair tests.
- Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations.
- Identifying scientific evidence that has been used to support or refute ideas or arguments.

Year 5 National Curriculum Content

Living things and their habitats

- 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.

Animals, including humans

- Describe the changes as humans develop to old age.

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.
- 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.

Earth and 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's rotation to explain day and night and the apparent movement of the sun across the sky.

Forces

- 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.

Year 6 National Curriculum Content

Living things and their habitats

- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.
- Give reasons for classifying plants and animals based on specific characteristics.

Animals, including humans

- 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.

Evolution and inheritance

- 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.

Light

- 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.

Electricity

- 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.

The subject map below shows how our school has interpreted this content. We have chosen to predominantly teach science discretely but also, when relevant, through a cross curricular approach throughout the whole academic year.

How the children should learn science in Key Stage 1

The principal focus of science teaching in Key Stage 1 is to enable pupils to **experience and observe phenomena**, looking more closely at the natural and humanly-constructed world around them. They are encouraged to **be curious and ask questions** about what they notice.

How the children should learn science at Lower Key Stage 2

The principal focus of science teaching in Lower key Stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

How the children should learn science at Upper Key Stage 2

The principal focus of science teaching in Upper Key Stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

Academic Year A/B	Y1/Y2		Y3/Y4		Y5/Y6	
Cycle A	**Autumn 1** **Animals. including humans** **Amazing me!** Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Animals, including humans -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.	**Autumn 2** **Seasonal Changes** **Wild Weather** Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.	**Autumn 1** **Forces and Magnets** 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.	**Autumn 2** **Begin topic on Rocks and soils** Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	**Autumn 1** **Living Things and Their Habitats** Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.	**Autumn 2** **Evolution and Inheritance** 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.
	Spring 1 **Everyday Materials** **Brilliant Builders** Distinguish between an object and the material from which it is made.	**Spring 2** **Plants** **Growing things** Identify and name a variety of common wild and garden plants,	**Spring 1** **Conclude topic on rocks and soils** Describe in simple terms how fossils are formed	**Spring 2** **Light** Recognise that they need light in order to see things and that dark is the absence of light.	**Spring 1** **Animals including Humans** Identify and name the main parts of the human circulatory system, and	**Spring 2** **Light – How We See Things** Recognise that light appears to travel in straight lines.

	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.	including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. Plants 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.	when things that have lived are trapped within rock. Recognise that soils are made from rocks and organic matter.	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.	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.	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.
	Summer 1 **Animals, Including Humans** **Wild and wonderful creatures** Pupils should be taught to: Identify and name a variety of common	**Summer 2** **Living things and their habitats** **Food Chains** Living things and their habitats Explore and compare the differences between things that are living,	**Summer 1** **Plants** 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	**Summer 2** **Animals, including humans** 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.	**Summer 1** **Electricity** 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	**Summer 2** **Science investigations** Posing questions, planning investigations, making predictions, ensuring fair tests, writing up results, presenting data, drawing conclusions.

	animals that are birds, fish, amphibians, reptiles, mammals and invertebrates ii) identify and name a variety of common animals that are carnivores, herbivores and omnivores iii) describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, and including pets) iv) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Animals, including humans i) notice that animals, including humans, have offspring which grow into adults. ii) find out about and describe the basic needs of animals, including humans, for survival (water, food and air). iii) describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	dead, and things that have never been alive ii) 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 iii) identify and name a variety of plants and animals in their habitats, including micro-habitats iv) 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.	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. .	Identify that humans and some other animals have skeletons and muscles for support, protection and movement. .	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.	

Cycle B	Autumn 1	Autumn 2	Autumn 1	Autumn 2	Autumn 1	Autumn 2
	Animals including humans **People and their 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.	**Seasonal changes** **Weather Art** Observe changes across the four seasons. -observe and describe weather associated with the seasons and how day length varies. Light Observe and name a variety of sources of light, including electric lights, flames and the Sun. Associate shadows with a light source being blocked by something. .	**Animals Including Humans**. 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.	**Science investigation** Children will have opportunity to pose their own questions and follow lines of enquiry with a focus on using Scientific Enquiry skills, based on their previous topic.	**Living Things and Their Habitats** 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.	**Earth and 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's rotation to explain day and night and the apparent movement of the sun across the sky.
	Spring 1	**Spring 2**	**Spring 1**	**Spring 2**	**Spring 1**	**Spring 2**
	Everyday Materials **Brilliant builders** 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.	**Plants** **Art and Nature** 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	**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.	**Sound** 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	**Properties and Changes of Materials** Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical	**Animals and Humans** Describe the changes as humans develop to old age. Draw a timeline to indicate stages in the growth and development of humans.

	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. 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.	flowering plants, including trees. 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.	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.	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.	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.	Learn about the changes experienced in puberty. Work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.
	Summer 1 **Everyday Materials**	**Summer 2** **Livings things and their habitats**	**Summer 1** **Living things & their habitats**	**Summer 2** **States of Matter**	**Summer 1** **Forces**	**Summer 2** **Scientific Investigations**

	Exploring changes 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. 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.	**Habitats and homes** 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.	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.	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.	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.	Posing questions, planning investigations, making predictions, ensuring fair tests, writing up results, presenting data, drawing conclusions.