SCIENCE

'Discover the Universe through Science'

Cycle A

	Autumn	Spring	Summer
EYFS (FS1/FS2)	Talk daily weather Talk about what I can see touch, smell, hear and taste Explore a range of materials through construction and creative activities. Explore natural materials, indoors and outdoors. I can talk about what I can see, outside using a wide vocabulary. I can change materials e.g., adding water to cornflour, mixing paint etc. Talk about seasonal and daily weather. Explore our natural environment- forest schools. I can describe what I can see, hear and feel outside. I can talk about the area I live in, including the weather etc. I can talk about forces I feel e.g., push, pull etc. I can talk about the differences in materials	I begin to notice seasonal changes. Explore collections of materials with similar and different properties. Plant seeds and care for my growing plants. Understand the key features of the life cycle of a plant and an animal. I can describe my own environment and local area. I can describe another environment e.g., desert, Artic etc Use simple equipment in my activities. I can talk about similarities and differences in materials. I can describe animals and plants (both from photos and life experiences) I can talk about weather linked to seasonal change. I can talk about changes (freezing, melting (linked to baking, painting, mixing, mud play)	Talk about seasonal and daily weather Explore how things work. How can I help to look after our school environment? Talk about the differences between materials and changes I notice. I can talk about the key features of life cycles using key vocabulary Why do I need to care for the natural environment? I can talk about the world around us observing animals and plants and how they change. I can make observations of animals and plants and use these observations to draw pictures. I can explore the natural world. I can contrast the natural world around me with different environments. I can talk about some of the changes in the natural world (including seasons and changing states of matter) Shadows. I can give simple reasons for my answers.
ELG: The Natural World	**Ongoing Knowledge and understandingOf the World..** 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.		
	Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.	Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.	Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.

	Towers, Tunnels and Turrets		Wriggle and Crawl		The Scented Garden	
	Human Body	**Materials**	**Animals and Habitats**	**Animals and Habitats**	**Plants**	**Plants/Seasonal Change**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
Year 1	**I can…** **Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.**	**I can…** **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.**	**I can…** **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)**	**I can…** **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)**	**I can…** **Identify and name a variety of wild and garden plants including deciduous and evergreen trees.** **Identify and describe the basic structure of a variety of common flowering plants, including trees**	**I can…** **observe changes across the four seasons** **Observe and describe weather associated with the seasons and how day length varies.**
	Skills	Skills	Skills	Skills	Skills	Skills
	Begin to recognise that questions can be answered in different ways. Perform simple tests with support. To begin to discuss my ideas about how to find things out. To begin to say what happened in my investigation. Begin to use	Begin to recognise that questions can be answered in different ways. Perform simple tests with support. To begin to discuss my ideas about how to find things out. To begin to say what happened in my investigation. Begin to use	Ask simple questions about the world around us. Begin to observe closely using simple equipment. To be able to say what I am looking for and what I am measuring. To know how to use simple equipment safely. Use simple measurements and equipment with support.	Ask simple questions about the world around us. Begin to observe closely using simple equipment. To be able to say what I am looking for and what I am measuring. To know how to use simple equipment safely.	Gather and record data with some adult support to help in answering questions. Begin to record simple data. Begin to record and communicate findings in a range of ways. Can show my results in a table that my teacher has provided. Begin to use simple scientific language related to the topic	Gather and record data with some adult support to help in answering questions. Begin to record simple data. Begin to record and communicate findings in a range of ways. Can show my results in a table that my teacher has provided.

	simple scientific language related to the topic.	simple scientific language related to the topic.	Begin to progress from non-standard units, reading cm, l etc. I can talk about what I see and do. To begin to find information to help me form books and computers with support. To begin to ask my peers for help when appropriate. Begin to use simple scientific language related to the topic.	Use simple measurements and equipment with support. Begin to progress from non-standard units, reading cm, l etc. I can talk about what I see and do. To begin to find information to help me form books and computers with support. To begin to ask my peers for help when appropriate. Begin to use simple scientific language related to the topic.		Begin to use simple scientific language related to the topic
	Towers, Tunnels and Turrets		**Wriggle and Crawl**		**The Scented Garden**	
Year 2	**Human Body**	**Materials**	**Animals**	**Habitats**	**Plants**	**Plants/Seasonal Change**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
	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,	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	explore and compare the differences between things that are living, dead, and things that have never been alive Notice that animals, including humans, have offspring which grow into adults	Identify and name a variety of plants and animals in their habitats, including micro-habitats identify that most living things live in habitats to which they are suited and	Identify and name a variety of plants and animals in their habitats, including micro-habitats Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants	Identify and name a variety of plants and animals in their habitats, including micro-habitats Observe and describe how seeds and bulbs grow into mature plants

	and hygiene. Notice that animals, including humans, have offspring which grow into adults.	of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	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.	describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other	need water, light and a suitable temperature to grow and stay healthy. 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	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 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
	Skills	Skills	Skills	Skills	Skills	Skills
	Recognise that questions can be answered in different ways. Perform simple tests. To discuss my ideas about how to find things out. To say what happened in my investigation. Use simple scientific language related to the topic and some science words.	Recognise that questions can be answered in different ways. Perform simple tests. To discuss my ideas about how to find things out. To say what happened in my investigation. Use simple scientific language related to the topic and some science words.	Ask some relevant questions about the world around us. Observe closely using simple equipment. To be able to say what I am looking for and what I am measuring and why. To find information to help me from books and computers, sometimes with support when needed. To ask my peers for help when appropriate. Use simple scientific language related to the topic and some science words.	Ask some relevant questions about the world around us. Observe closely using simple equipment. To be able to say what I am looking for and what I am measuring and why. To find information to help me from books and computers, sometimes with support when needed. To ask my peers for	Gather and record data to help in answering questions. Record simple data. Record and communicate their findings in a range of ways. Can show my results in a table while suggesting what the table should include. With help, I begin to notice simple patterns and relationships. I can talk about what I found out and how I found it out. Use simple measurements and equipment. Begin to progress from non-standard units, reading cm, m, ml,	Gather and record data to help in answering questions. Record simple data. Record and communicate their findings in a range of ways. Can show my results in a table while suggesting what the table should include. With help, I begin to notice simple patterns and relationships. I can talk about what I found out and how I

				help when appropriate. Use simple scientific language related to the topic and some science words.	l etc.. Use simple scientific language related to the topic and some science words.	found it out. Use simple measurements and equipment. Begin to progress from non-standard units, reading cm, m, ml, l etc.. Use simple scientific language related to the topic and some science words.
	Off with her head!		**Our Canal**		**Ready, Steady, Cook!**	
Year 3	**Sound**	**Plants**	**Living Things and Their Habitats**	**Living Things and Their Habitats**	**Animals Including Humans**	**Animals Including Humans**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
	I can… **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**	**I can…** **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**	**I can…** **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**	**I can…** **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**	I can… **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**	I can… **recognise that living things can be grouped in a variety of ways** **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**

	increases	**pollination, seed formation and seed dispersal**				

Skills

Begin to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.

Begin to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Begin to use notes, simple tables and standard units and help to decide how to record and analyse their data.

Begin to record results in tables and bar charts.

With help, I am beginning to look for changes, similarities and differences in my data in order to draw simple conclusions and answer questions.
With support, I am beginning to identify new questions arising from the data.

With support, I can find ways of improving what I have already done.

I am beginning to report on my findings in different ways including

- spoken explanations
- written explanations
- displays or presentations

Begin to recognise when and how secondary resources might help to answer questions that cannot be answered through practical investigations.

Begin to use some scientific language to talk and write down what they have found out.

Begin to use scientific language.

Begin to use comparative and superlative language.

	Off with her head!		Our Canal		Ready, Steady, Cook!	
	Sound	**Plants**	**Living Things and their Habitat**	**Living Things and their Habitat**	**Animals Including Humans**	**Animals Including Humans**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
Year 4	I can… **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**	**I can…** **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**	**I can…** **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**	I can **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**	I can… **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**	**recognise that living things can be grouped in a variety of ways** **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**
	Skills					
	Ask a variety of relevant questions about the world around me and use different types of scientific enquiries to answer them. Raise their own questions about the world around them. Make some decisions about which type of enquiry will be the best way of answering questions. Set up simple practical enquiries, comparative and fair tests. Enquiry including:					

	• observation over time • looking for patterns • identifying and classifying • comparative and fair testing • researching using secondary sources Recognise when a simple fair test is necessary and help to decide how to set it up. Can think of more than one variable factor. Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. Learn to use new equipment appropriately (eg data loggers). Can see a pattern in my results. Can choose from a selection of equipment. Can observe and measure accurately using standard units including time in minutes and seconds. Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use notes, simple tables and standard units and help to decide how to record and analyse their data. Can record results in tables and bar charts. I can help to make decisions about how to analyse data. With help, I can look for changes, patterns, similarities and differences in my data in order to draw simple conclusions and answer questions. With support, I can identify new questions arising from the data.

	With support, I can make predictions for new values within or beyond the data I have collected. With support, I can find ways of improving what I have already done. I can report on my findings in different ways including • spoken explanations • written explanations • displays or presentations Recognise when and how secondary resources might help to answer questions that cannot be answered through practical investigations. Use some scientific language to talk and write down what they have found out. Use relevant scientific language. Use comparative and superlative language.					
	Violent Volcanoes		**Star Trekking Across the Universe**		**The Amazon**	
Year 5	**Properties and Change of Materials**	**Properties and Change of Materials**	**Earth and Space**	**Light**	**Inheritance and Evolution**	**Inheritance and Evolution**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
	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	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	**I can…** **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**	I can… **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**	I can… **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**	I can… **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**

	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	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.		**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**		**to suit their environment in different ways and that adaptation may lead to evolution**

	Skills
	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Begin to explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically. Begin to select the most appropriate ways to answer science questions using different types of scientific enquiry. Begin to use test results to make predictions to set up further comparative and fair tests. Begin to recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Begin to suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test. Begin to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Begin to report and present findings from enquiries. Begin to decide how to record data from a choice of familiar approaches. Begin to choose how best to present data. Begin to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate. Begin to identify patterns that might be found in the natural environment. Begin to make their own decisions about what observations to make, what measurements to use and how longto make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately. Begin to interpret data and find patterns. Select equipment on my own. Can make a set of observations and say what the interval and range are. Begin to take accurate and precise measurements – N, g, kg, mm, cm, mins, seconds, cm^2V, km/h, m per sec, m/ sec Graphs – pie, line I can use my results to make predictions. I can discuss and justify my scientific ideas, with some support.

	I am beginning to explain how one thing causes another. I can use spoken and written forms such as displays and other presentations to report my conclusions, with guidance. Use a range of secondary sources to research. Begin to separate opinion from fact. Am beginning to read, spell and pronounce scientific vocabulary correctly. Am beginning to use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas. Am beginning to confidently use a range of scientific vocabulary. Am beginning to use conventions such as trend, rogue result, support prediction and –er word generalisation. Am beginning to use scientific ideas when describing simple processes.

	Violent Volcanoes		Star Trekking Across the Universe		The Amazon	
Year 6	**Properties and Changes of Materials**	**Properties and Changes of Materials**	**Earth and Space**	**Light**	**Evolution and Inheritance**	**Evolution and Inheritance**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
	I can… 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	I can… 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	**I can…** **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**	I can… **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**	I can… **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**	I can… **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**

	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.	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.	**movement of the sun across the sky**	**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**	**evolution**	**identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution**
	Skills					

	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically Recognise scientific ideas change and develop over time. Select the most appropriate ways to answer science questions using different types of scientific enquiry. Use test results to make predictions to set up further comparative and fair tests. Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Suggest improvements to my method and give reasons. Decide when it is appropriate to do a fair test. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate. Identify patterns that might be found in the natural environment. Make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately. Can interpret data and find patterns. Select equipment on my own. Can make a set of observations and say what the interval and range are. Accurate and precise measurements – N, g, kg, mm, cm, mins, seconds, cm^2V, km/h, m per sec, m/ sec Graphs – pie, line, bar (Year 6) Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Report and present findings from enquiries. Decide how to record data from a choice of familiar approaches. Can choose how best to present data. I can confidently use my results to make predictions.

	I can identify when further tests might be needed. I can discuss and justify my scientific ideas. I can explain whether or not I trust my results. I can explain how one thing causes another. I can use spoken and written forms such as displays and other presentations to report my conclusions. Talk about how scientific ideas have developed over time. Recognise which secondary sources will be most useful to research my ideas. Begin to separate opinion from fact. Identify scientific evidence that has been used to support ideas or prove them wrong. Read, spell and pronounce scientific vocabulary correctly. Use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas. Can confidently use a range of scientific vocabulary. Can use conventions such as trend, rogue result, support prediction and –er word generalisation. Can use scientific ideas when describing simple processes.

SCIENCE

'Discover the Universe through Science'

CYCLE B

	Autumn	Spring	Summer

<table>
<tr><td>EYFS (FS1/FS2)</td><td colspan="2">Talk daily weather
Talk about what I can see touch, smell, hear and taste
Explore a range of materials through construction and creative activities.
Explore natural materials, indoors and outdoors.
I can talk about what I can see, outside using a wide vocabulary.
I can change materials e.g., adding water to cornflour, mixing paint etc.
Talk about seasonal and daily weather.
Explore our natural environment- forest schools.
I can describe what I can see, hear and feel outside.
I can talk about the area I live in, including the weather etc.
I can talk about forces I feel e.g., push, pull etc.
I can talk about the differences in materials</td><td colspan="2">I begin to notice seasonal changes.
Explore collections of materials with similar and different properties.
Plant seeds and care for my growing plants.
Understand the key features of the life cycle of a plant and an animal.
I can describe my own environment and local area.
I can describe another environment e.g., desert, Artic etc
Use simple equipment in my activities.
I can talk about similarities and differences in materials.
I can describe animals and plants (both from photos and life experiences)
I can talk about weather linked to seasonal change.
I can talk about changes (freezing, melting (linked to baking, painting, mixing, mud play)</td><td colspan="2">Talk about seasonal and daily weather
Explore how things work.
How can I help to look after our school environment?
Talk about the differences between materials and changes I notice.
I can talk about the key features of life cycles using key vocabulary
Why do I need to care for the natural environment?
I can talk about the world around us observing animals and plants and how they change.
I can make observations of animals and plants and use these observations to draw pictures.
I can explore the natural world.
I can contrast the natural world around me with different environments.
I can talk about some of the changes in the natural world (including seasons and changing states of matter) Shadows.
I can give simple reasons for my answers.</td></tr>
<tr><td rowspan="2">ELG: The Natural World</td><td colspan="6">Ongoing Knowledge and understanding Of the World.

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.</td></tr>
<tr><td colspan="2">Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.</td><td colspan="2">Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.</td><td colspan="2">Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.</td></tr>
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<tr><td rowspan="2">Year 1</td><td>Materials</td><td>The Human Body</td><td>Animals and Habitats</td><td>Animals and Habitats</td><td>Plants</td><td>Plants/Season Changes</td></tr>
<tr><td>Knowledge</td><td>Knowledge</td><td>Knowledge</td><td>Knowledge</td><td>Knowledge</td><td>Knowledge</td></tr>
</table>

	I can… **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**	**I can…** **Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.**	**I can…** **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)**	**I can…** **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)**	**I can…** **I can…** **Identify and name a variety of wild and garden plants including deciduous and evergreen trees.** **Identify and describe the basic structure of a variety of common flowering plants, including trees**	**I can…** **.** **Observe changes across the four seasons.** **Observe and describe weather associated with the seasons and how day length varies.**
	Skills	Skills	Skills	Skills	Skills	Skills
	Begin to recognise that they can be answered in different ways. Perform simple tests with support. To begin to discuss my ideas about how to find things out. To begin to say what happened in my investigation. Begin to use simple scientific language related to the topic.	Begin to recognise that they can be answered in different ways. Perform simple tests with support. To begin to discuss my ideas about how to find things out. To begin to say what happened in my investigation. Begin to use simple scientific language related to the topic.	Ask simple questions about the world around us. Begin to observe closely using simple equipment. To be able to say what I am looking for and what I am measuring. To know how to use simple equipment safely. Use simple measurements and equipment with support.	Ask simple questions about the world around us. Begin to observe closely using simple equipment. To be able to say what I am looking for and what I am measuring. To know how to use simple equipment safely. Use simple measurements and equipment with support.	Gather and record data with some adult support to help in answering questions. Begin to record simple data. Begin to record and communicate findings in a range of ways. Can show my results in a table that my teacher has provided. Begin to use simple scientific language related to the topic	Gather and record data with some adult support to help in answering questions. Begin to record simple data. Begin to record and communicate findings in a range of ways. Can show my results in a table that my teacher has provided. Begin to use

			Begin to progress from non-standard units, reading cm, l etc. I can talk about what I see and do. To begin to find information to help me form books and computers with support. To begin to ask my peers for help when appropriate. Begin to use simple scientific language related to the topic.	Begin to progress from non-standard units, reading cm, l etc. I can talk about what I see and do. To begin to find information to help me form books and computers with support. To begin to ask my peers for help when appropriate. Begin to use simple scientific language related to the topic.		simple scientific language related to the topic
	Superheroes		**Paws, Claws and Whiskers**		**Beachcombers**	
Year 2	The Human Body	Materials	Animals	Habitats	Plants	Plants/Seasonal Change
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
	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. Notice that animals, including humans, have offspring which grow into adults.	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	explore and compare the differences between things that are living, dead, and things that have never been alive Notice that animals, including humans, have offspring which grow into adults Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify	Identify and name a variety of plants and animals in their habitats, including micro-habitats 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 micro-habitats Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. identify that most living things live in habitats to	Identify and name a variety of plants and animals in their habitats, including micro-habitats 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.

			and name different sources of food.		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 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
	Skills	Skills	Skills	Skills	Skills	Skills
	Recognise that questions can be answered in different ways. Perform simple tests. To discuss my ideas about how to find things out. To say what happened in my investigation. Use simple scientific language related to the topic and some science words.	Recognise that questions can be answered in different ways. Perform simple tests. To discuss my ideas about how to find things out. To say what happened in my investigation. Use simple scientific language related to the topic and some science words.	Ask some relevant questions about the world around us. Observe closely using simple equipment. To be able to say what I am looking for and what I am measuring and why. To find information to help me from books and computers, sometimes with support when needed. To ask my peers for help when appropriate. Use simple scientific language related to the topic and some science words.	Ask some relevant questions about the world around us. Observe closely using simple equipment. To be able to say what I am looking for and what I am measuring and why. To find information to help me from books and computers, sometimes with support when needed. To ask my peers for help when appropriate. Use simple scientific language related to the topic and some science words.	Gather and record data to help in answering questions. Record simple data. Record and communicate their findings in a range of ways. Can show my results in a table while suggesting what the table should include. With help, I begin to notice simple patterns and relationships. I can talk about what I found out and how I found it out. Use simple measurements and equipment. Begin to progress from non-standard units, reading cm, m, ml, l etc..	Gather and record data to help in answering questions. Record simple data. Record and communicate their findings in a range of ways. Can show my results in a table while suggesting what the table should include. With help, I begin to notice simple patterns and relationships. I can talk about what I found out and how I found it out. Use simple measurements and equipment.

					Use simple scientific language related to the topic and some science words.	Begin to progress from non-standard units, reading cm, m, ml, l etc.. Use simple scientific language related to the topic and some science words.
	Journey down The River Nile		**Let there be light!**		**Stig of the Dump**	
Year 3	**Magnets and Forces**	**State of the Matter**	**Light**	**Electricity**	**Rocks**	**Everyday Materials**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
	I can… **compare how things move on different surfaces** **notice that some forces need contact between two objects, but magnetic forces can act at a distance** **observe how magnets attract or repel each other and attract some materials and not others** **compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials** **describe magnets as having two poles** **predict whether two magnets will attract or**	I can… **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**	I can… **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**	I can… I can… **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**	I can… **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**	I can… **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**

	repel each other, depending on which poles are facing.			**insulators, and associate metals with being good conductors**		

Skills
Begin to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Begin to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Begin to use notes, simple tables and standard units and help to decide how to record and analyse their data. Begin to record results in tables and bar charts. With help, I am beginning to look for changes, similarities and differences in my data in order to draw simple conclusions and answer questions. With support, I am beginning to identify new questions arising from the data. With support, I can find ways of improving what I have already done. I am beginning to report on my findings in different ways including • spoken explanations • written explanations • displays or presentations Begin to recognise when and how secondary resources might help to answer questions that cannot be answered through practical investigations. Begin to use some scientific language to talk and write down what they have found out. Begin to use scientific language. Begin to use comparative and superlative language.

	Journey down The River Nile		**Let there be light!**		**Stig of the Dump**	
Year	**Magnets and Forces**	**State of the Matter –**	**Light**	**Electricity**	**Rocks**	**Materials**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge

	I can… **compare how things move on different surfaces** **notice that some forces need contact between two objects, but magnetic forces can act at a distance** **observe how magnets attract or repel each other and attract some materials and not others** **compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials** **describe magnets as having two poles** **predict whether two magnets will attract or repel each other, depending on which poles are facing.**	I can… **compare and group materials together, according to whether they are solids, liquids or gases** **observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)** **identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature**	**recognise 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**	I can… **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**	I can… **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**	I can… **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**
	Skills					

	Ask a variety of relevant questions about the world around me and use different types of scientific enquiries to answer them. Raise their own questions about the world around them. Make some decisions about which type of enquiry will be the best way of answering questions. Set up simple practical enquiries, comparative and fair tests. Enquiry including: observation over time looking for patterns identifying and classifying comparative and fair testing researching using secondary sources Recognise when a simple fair test is necessary and help to decide how to set it up. Can think of more than one variable factor. Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. Learn to use new equipment appropriately (eg data loggers). Can see a pattern in my results. Can choose from a selection of equipment. Can observe and measure accurately using standard units including time in minutes and seconds. Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use notes, simple tables and standard units and help to decide how to record and analyse their data.

	Can record results in tables and bar charts. I can help to make decisions about how to analyse data. With help, I can look for changes, patterns, similarities and differences in my data in order to draw simple conclusions and answer questions. With support, I can identify new questions arising from the data. With support, I can make predictions for new values within or beyond the data I have collected. With support, I can find ways of improving what I have already done. I can report on my findings in different ways including spoken explanations written explanations displays or presentations Recognise when and how secondary resources might help to answer questions that cannot be answered through practical investigations. Use some scientific language to talk and write down what they have found out. Use relevant scientific language. Use comparative and superlative language.

	Cog Heart		Under Attack		Going for Gold	
Year 5	**Electricity**	**Forces**	**State of Matter**	**State of Matter**	**Animals Including Humans**	**Living Things and their Habitat**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
	I can… **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**	I can… **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**	**I can…** **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**	I can… **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**	I can… **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**	**I can…** **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**

	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**	**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**	**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**	**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**	**lifestyle on the way their bodies function** **describe the ways in which nutrients and water are transported within animals, including humans** **describe the changes as humans develop to old age**	
	Skills					
	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Begin to explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically. Begin to select the most appropriate ways to answer science questions using different types of scientific enquiry. Begin to use test results to make predictions to set up further comparative and fair tests. Begin to recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Begin to suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test. Begin to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Begin to report and present findings from enquiries. Begin to decide how to record data from a choice of familiar approaches. Begin to choose how best to present data.					

	Begin to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate. Begin to identify patterns that might be found in the natural environment. Begin to make their own decisions about what observations to make, what measurements to use and how longto make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately. Begin to interpret data and find patterns. Select equipment on my own. Can make a set of observations and say what the interval and range are. Begin to take accurate and precise measurements – N, g, kg, mm, cm, mins, seconds, cm^2V, km/h, m per sec, m/ sec Graphs – pie, line I can use my results to make predictions. I can discuss and justify my scientific ideas, with some support. I am beginning to explain how one thing causes another. I can use spoken and written forms such as displays and other presentations to report my conclusions, with guidance. Use a range of secondary sources to research. Begin to separate opinion from fact. Am beginning to read, spell and pronounce scientific vocabulary correctly. Am beginning to use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas. Am beginning to confidently use a range of scientific vocabulary. Am beginning to use conventions such as trend, rogue result, support prediction and –er word generalisation. Am beginning to use scientific ideas when describing simple processes.

	Cog Heart		Under Attack		Going for Gold	
	Electricity	**Forces**	**State of Matter**	**State of Matter**	**Animals including Humans**	**Living things and their Habitat**
	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
Year 6	I can… **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**	I can… **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**	I can… **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**	I can… **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**	I can… **identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood** **recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function** **describe the ways in which nutrients and water are transported within animals, including humans** **describe the changes as humans develop to old age**	I can… **describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals** **give reasons for classifying plants and animals based on specific characteristics.**
	Skills					
	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically Recognise scientific ideas change and develop over time. Select the most appropriate ways to answer science questions using different types of scientific enquiry. Use test results to make predictions to set up further comparative and fair tests.					

	Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Suggest improvements to my method and give reasons. Decide when it is appropriate to do a fair test. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate. Identify patterns that might be found in the natural environment. Make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately. Can interpret data and find patterns. Select equipment on my own. Can make a set of observations and say what the interval and range are. Accurate and precise measurements – N, g, kg, mm, cm, mins, seconds, cm^2V, km/h, m per sec, m/ sec Graphs – pie, line, bar (Year 6) Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Report and present findings from enquiries. Decide how to record data from a choice of familiar approaches. Can choose how best to present data. I can confidently use my results to make predictions. I can identify when further tests might be needed. I can discuss and justify my scientific ideas. I can explain whether or not I trust my results. I can explain how one thing causes another.

	I can use spoken and written forms such as displays and other presentations to report my conclusions. Talk about how scientific ideas have developed over time. Recognise which secondary sources will be most useful to research my ideas. Begin to separate opinion from fact. Identify scientific evidence that has been used to support ideas or prove them wrong. Read, spell and pronounce scientific vocabulary correctly. Use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas. Can confidently use a range of scientific vocabulary. Can use conventions such as trend, rogue result, support prediction and –er word generalisation. Can use scientific ideas when describing simple processes.

Vocabulary	YEAR 1 **Question** **Observe** **Group** **Sort** **Predict** **Table** **Use comparative language with support.**	Year 2 As previous plus… **Questioning** **Plan** **Record** **Identify** **Block graph** **Data** **Use comparative language – bigger, faster etc...**	Year 3 As previous plus… **Measurements** **Classify** **Diagram** **Key** **Graph** **Chart** **Prediction** **Conclusion** **Explanation** **Observation** **Research** **Fair** **Text**	Year 4 As previous plus… **Thermometer** **Accurate** **Data logger** **Enquiry** **Comparative** **Relevant questions** **Secondary source**	Year 5 As previous plus… **Variables** **Cause** **Effect** **Repeat** **Precise** **Systematic** **Scatter graph** **Line graph** **Bar graph** **Pattern** **Relationship** **Evidence**	Year 6 As previous plus… **Interpret** **Refute** **Opinion/ fact** **Present (your findings)** **Justify**