NC2014 SCIENCE LIST

OBJECTIVES and CHILD SPEAK TARGETS

SCIENCE Key Stage 1 Year 1

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 1 Y1	Working Scientifically			
KS 1 Y1	Working Scientifically	[KEY] Beginning to ask simple questions and recognising that they can be answered in different ways. ↳ **GD objective:** Beginning to ask a wider range of simple questions and recognise that they can be answered in different ways.	*I can ask simple questions.*	*I can ask a range questions and know they can be answered in different ways.*
KS 1 Y1	Working Scientifically	[KEY] Beginning to observe more closely, using simple equipment. ↳ **GD objective:** Beginning to observe more closely and independently, using simple equipment.	*I can use simple equipment to look very closely at things.*	*I can use a range of equipment to look very closely at things.*
KS 1 Y1	Working Scientifically	[KEY] Begining to perform simple tests. ↳ **GD objective:** Beginning to perform a range of simple tests.	*I can test things in simple ways.*	*I can test things in a number of scientific ways.*
KS 1 Y1	Working Scientifically	[KEY] Beginning to identify and classify. ↳ **GD objective:** Beginning to identify and classify with less adult support.	*I can group similar objects of items together.*	*I can classify and organise objects of items based on their properties.*
KS 1 Y1	Working Scientifically	[KEY] Beginning to use their observations and ideas to suggest answers to questions. ↳ **GD objective:** Beginning to use their observations and ideas to suggest independent answers to questions.	*I answer questions in science by thinking about what I have seen.*	*I answer questions in science by thinking about what I have seen and learnt in different scientific areas.*
KS 1 Y1	Working Scientifically	[KEY] Beginning to gather and record simple data to help in answering questions. ↳ **GD objective:** Beginning to gather and record a wider set of data to help in answering questions.	*I can find information which helps me when I have to answer questions.*	*I can find information without help, which helps me when I have to answer questions.*
KS 1 Y1	Plants			
KS 1 Y1	Plants	[KEY] Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. ↳ **GD objective:** Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees, comparing different species.	*I can name some plants that I often see in the garden and countryside as well as some trees that drop their leaves and some that don't.*	*I can name and compare some plants that I often see in the garden and countryside as well as some trees that drop their leaves and some that don't.*
KS 1 Y1	Plants	[KEY] Identify and describe the basic structure of a variety of common flowering plants, including trees.	*I understand the inside of some plants and trees and how they grow which I can explain to others.*	*I understand the inside of a range of plants and trees and how they grow which I can explain to others.*

		↳ **GD objective:** Identify, group and explain the structure of a variety of common flowering plants, including trees.		
KS 1 Y1	Animals			
KS 1 Y1	Animals	[KEY] Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. ↳ **GD objective:** Identify and compare a wide variety of animals including fish, amphibians, reptiles, birds and mammals.	*I can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.*	*I can identify and compare a variety of animals including fish, amphibians, reptiles, birds and mammals.*
KS 1 Y1	Animals	[KEY] Identify and name a variety of common animals that are carnivores, herbivores and omnivores. ↳ **GD objective:** Identify and compare a variety of common animals that are carnivores, herbivores and omnivores.	*I know the names of animals I often see which eat meat, others that eat vegetables and some that eat both.*	*I know the names of animals that are carnivores, herbivores and omnivores.*
KS 1 Y1	Animals	[KEY] Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). ↳ **GD objective:** Explain and compare the structure and characteristics of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) independently.	*I can describe the different shape and form of a number of animals that I often see including my pets.*	*I can compare and explain the different shape and form of a number of animals that I often see including my pets.*
KS 1 Y1	Animals	[KEY] Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. ↳ **GD objective:** Identify, name, draw and label the basic parts of the human body, say which part of the body is associated with each sense and explain what they do.	*I know the parts of the human body, can draw a picture of it and name the parts. I know which part of the body lets me hear, taste and smell.*	*I know the parts of the human body, can draw a picture of it and name the parts. I can explain which part of the body lets me hear, taste and smell.*
KS 1 Y1	Everyday Materials			
KS 1 Y1	Everyday Materials	[KEY] Distinguish between an object and the material from which it is made. ↳ **GD objective:** Distinguish between an object and the material from which it is made, and identify the multiple materials that make single objects.	*I know that the name of an object and name the material it is made from will be different.*	*I can identify multiple materials that make one object.*
KS 1 Y1	Everyday Materials	[KEY] Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. ↳ **GD objective:** Identify and compare a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.	*I know the name of some materials I see everyday, including wood, plastic, glass, metal, water, and rock.*	*I recognise and know the name of some materials I see everyday, including wood, plastic, glass, metal, water, and rock, and can compare them.*
KS 1 Y1	Everyday Materials	[KEY] Describe the simple physical properties of a variety of everyday materials. ↳ **GD objective:** Independently describe the physical properties of a variety of everyday materials and suggest their uses.	*I can describe the simple physical properties of a variety of everyday materials.*	*I can describe the physical properties of a variety of everyday material independently and say what they can be used for.*
KS 1 Y1	Everyday Materials	[KEY] Compare and group together a variety of everyday materials on the basis of their simple physical properties. ↳ **GD objective:** Evaluate and organise a variety of everyday materials on the basis of a range of their physical properties.	*I can compare the simple physical properties of a variety of everyday materials and group similar ones together.*	*I can evaluate the physical properties of a variety of everyday materials and organise them appropriately.*

KS 1 Y1	Seasons Changes			
KS 1 Y1	Seasons Changes	[KEY] Observe changes across the four seasons. ↳ **GD objective:** Observe, compare and contrast changes across the four seasons.	*I notice and can describe the changes that happen from Spring to Summer to Autumn and into Winter.*	*I can describe and compare the changes that happen from Spring to Summer to Autumn and into Winter.*
KS 1 Y1	Seasons Changes	[KEY] Observe and describe weather associated with the seasons and how day length varies. ↳ **GD objective:** Observe and describe weather associated with the seasons, how day length varies and that different countries have different weather patterns.	*I know what weather we might find in spring, summer, autumn and winter and I know winter days are shorter than summer days.*	*I know what weather we might find in spring, summer, autumn and winter and I know winter days are shorter than summer days. I know that different countries have different weather patterns.*

SCIENCE Key Stage 1 Year 2

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 1 Y2	Working Scientifically			
KS 1 Y2	Working Scientifically	[KEY] Asking simple questions and recognising that they can be answered in different ways. ↳ **GD objective:** Confidently ask scientific questions and recognise that they can be answered in different ways.	*I can ask simple questions and know that there can be more than one answer.*	*I can ask questions confidently and know that there can be more than one answer.*
KS 1 Y2	Working Scientifically	[KEY] Observing closely, using simple equipment. ↳ **GD objective:** Independently observe closely, using scientific equipment.	*I can use simple equipment to look very closely at things so I can understand them better.*	*I can use scientific equipment to look very closely at things without help, so I can understand them better.*
KS 1 Y2	Working Scientifically	[KEY] Performing simple tests. ↳ **GD objective:** Independently conduct scientific tests.	*I can test things in simple ways.*	*I can test things scientifically without help.*
KS 1 Y2	Working Scientifically	[KEY] Identifying and classifying. ↳ **GD objective:** Identifying and classifying, explaining their choices.	*I can identify different things in Science and can group similar ones together.*	*I can identify different things in science and can organise them in a range of ways, explaining my choices.*
KS 1 Y2	Working Scientifically	[KEY] Using their observations and ideas to suggest answers to questions. ↳ **GD objective:** Confidently use their independent observations and understanding in other scientific areas to suggest answers to questions.	*I use what I have seen and think to help me when I answer questions.*	*I use what I have seen and think about other science I have learnt to help me when I answer questions.*
KS 1 Y2	Working Scientifically	[KEY] Gathering and recording data to help in answering questions. ↳ **GD objective:** Independently gather and record a wider range of data to support the answers of questions.	*I can find information and write it down which helps me when I have to answer questions.*	*I can find information and write it down without help which helps me when I have to answer questions.*
KS 1 Y2	Living Things Habitats			
KS 1 Y2	Living Things Habitats	[KEY] Explore and compare the differences between things that are living, dead, and things that have never been alive. ↳ **GD objective:** Explore and evaluate the key differences between things that are living, dead, and things that have never been alive.	*I can explore and compare the differences between things that are living, dead, and things that have never been alive.*	*I can explore and evaluate important differences between things that are living, dead, and things that have never been alive.*
KS 1 Y2	Living Things Habitats	[KEY] 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. ↳ **GD objective:** Explain how most living things live in habitats to which they are best suited and describe in greater depth an example of a connected and interdependent habitat.	*I can identify that most living things live in places which suit their basic needs. I can describe how different kinds of animals and plants, need different types of places to live and that they depend on each other.*	*I can explain how most living things live in places which suit their basic needs. I can describe in more detail an example of how animals and plants in one place depend on each other.*
KS 1 Y2	Living Things Habitats	[KEY] Identify and name a variety of plants and animals in their habitats, including micro-habitats.	*I can identify and name a variety of plants and animals in their habitats, including micro-habitats.*	*I can identify and name a variety of plants and animals in their habitats, including micro-habitats*

		↳ **GD objective:** Independently identify and name a variety of plants and animals in their habitats, including micro-habitats, comparing their features.		*independently, comparing their features.*
KS 1 Y2	Living Things Habitats	[KEY] 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. ↳ **GD objective:** Explain in greater depth how animals obtain their food from plants and other animals, using the idea of a food chain, and identify and name a range of different sources of food.	*I understand the simple food chain and can identify and name different sources of food. I can describe how animals obtain their food from plants and other animals.*	*I can explain food chains in detail and can identify and name different sources of food. I can describe in detail how animals obtain their food from plants and other animals.*
KS 1 Y2	Plants			
KS 1 Y2	Plants	[KEY] Observe and describe how seeds and bulbs grow into mature plants. ↳ **GD objective:** Observe and explain how seeds and bulbs grow into mature plants and compare different species.	*I know and can describe how seeds and bulbs grow into mature plants.*	*I can explain how seeds and bulbs grow into mature plants and can compare different plant species.*
KS 1 Y2	Plants	[KEY] Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. ↳ **GD objective:** Investigate and explain how plants need a balance of water, light and a suitable temperature to grow and stay healthy, and suggest how plants can adapt to their environment.	*I know that plants need water, light and a suitable temperature to grow and stay healthy.*	*I know that plants need just the right amount of water, light and a suitable temperature to grow and stay healthy and can suggest how plants can change in different environments.*
KS 1 Y2	Animals			
KS 1 Y2	Animals	[KEY] Notice that animals, including humans, have offspring which grow into adults. ↳ **GD objective:** Notice that animals, including humans, have offspring which grow into adults, comparing different species.	*I know that animals, including humans, have babies which grow into adults.*	*I know that animals, including humans, have babies which grow into adults, and I can compare different species.*
KS 1 Y2	Animals	[KEY] Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). ↳ **GD objective:** Investigate and explain the needs of animals, including humans, for survival (water, food and air).	*I know that animals, including humans, need water, food and air to survive.*	*I can explain in detail how animals, including humans, need water, food and air to survive.*
KS 1 Y2	Animals	[KEY] Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. ↳ **GD objective:** Independently explain the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	*I know that exercise, eating the right amounts of different types of food, and hygiene are all important for humans.*	*I can explain why exercise, eating the right amounts of different types of food, and hygiene are all important for humans.*
KS 1 Y2	Everyday Materials			
KS 1 Y2	Everyday Materials	[KEY] Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. ↳ **GD objective:** Identify and evaluate the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for a range of specific uses.	*I know which everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard are suitable for particular uses.*	*I have decided which everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard are most suitable for a range of specific uses.*

KS 1 Y2	Everyday Materials	[KEY] Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. ↳ **GD objective:** Investigate and explain how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching and other materials cannot be changed in the same ways.	*I know how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.*	*I know and can explain why the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching and other materials behave differently.*

SCIENCE Key Stage 2 Year 3

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 2 Y3	Working Scientifically			
KS 2 Y3	Working Scientifically	[KEY] Beginning to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. ↳ **GD objective:** Beginning to use results to draw a variety of simple conclusions, make focused predictions for new values, suggest improvements and raise further questions.	*I use my results to draw a conclusion and make predictions for answering a different question.*	*I use my results to draw detailed conclusions and make predictions for answering a different question.*
KS 2 Y3	Working Scientifically	[KEY] Beginning to identify differences, similarities or changes related to simple scientific ideas and processes. ↳ **GD objective:** Beginning to identify a range of differences, similarities or changes related to simple scientific ideas and processes.	*I can identify some simple differences or similarities when making comparisons.*	*I can identify a range of differences or similarities when making comparisons.*
KS 2 Y3	Working Scientifically	[KEY] Beginning to use straightforward scientific evidence to answer questions or to support their findings. ↳ **GD objective:** Beginning to use straightforward scientific evidence to answer questions or to support their findings independently.	*I support my answers by pointing out the scientific evidence.*	*I support my answers by using a range of scientific evidence.*
KS 2 Y3	Working Scientifically	[KEY] Beginning to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. ↳ **GD objective:** Beginning to report on wider findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	*I can report my conclusion from the results of my experiment.*	*I can report my detailed conclusion from the results of my experiment.*
KS 2 Y3	Working Scientifically	[KEY] Beginning to gather, record, classify and present data in a variety of ways to help in answering questions. ↳ **GD objective:** Beginning to gather, record, classify and present data in a wider variety of ways to help in answering questions.	*I can gather the data I need to answer a scientific question and then present them in a table, grid or graph.*	*I can gather a range of data I need to answer a scientific question and then present them in accurate tables, grids or graphs.*
KS 2 Y3	Working Scientifically	[KEY] Beginning to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. ↳ **GD objective:** Beginning to record findings using wider scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	*I can record my findings in simple labelled diagrams, keys, bar charts or tables.*	*I can record my findings in labelled diagrams, keys, bar charts or tables.*
KS 2 Y3	Working Scientifically	[KEY] Beginning to set up simple practical enquiries, comparative and fair tests. ↳ **GD objective:** Beginning to set up simple practical enquiries, comparative and fair tests with less adult support.	*I can set up a simple fair test experiment to answer a scientific question.*	*I can set up a fair test experiment to answer a scientific question.*
KS 2 Y3	Working Scientifically	[KEY] Beginning to make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.	*I can make observations and record measurements (for example in mm or g).*	*I can make detailed and accurate observations and record measurements (for example in mm or g).*

		↳ **GD objective:** Beginning to make more systematic and thought out observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.		
KS 2 Y3	Working Scientifically	[KEY] Beginning to ask relevant questions and using different types of scientific enquiries to answer them. ↳ **GD objective:** Beginning to ask more focused, relevant questions and using different types of scientific enquiries to answer them.	*I can ask relevant scientific questions.*	*I can ask a range of relevant scientific questions.*
KS 2 Y3	Plants			
KS 2 Y3	Plants	[KEY] Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. ↳ **GD objective:** Identify and explain how the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers connect together using scientific vocabulary.	*I know the different parts of a flowering plant (roots, stem/trunk, leaves and flowers) and what each part does.*	*I know the different parts of a flowering plant (roots, stem/trunk, leaves and flowers) and can explain what each part does as a whole plant cycle using scientific vocabulary.*
KS 2 Y3	Plants	[KEY] 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. ↳ **GD objective:** Assess and test the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and evaluate how they vary from plant to plant.	*I know what a plant needs to live and grow, and that some plants need more or less air, light, water, nutrients from the soil, and room to grow, depending on the plant variety.*	*I know what a plant needs to live and grow, and that some plants need more or less air, light, water, nutrients from the soil, and room to grow, and can evaluate how this changes depending on the plant variety.*
KS 2 Y3	Plants	[KEY] Investigate the way in which water is transported within plants. ↳ **GD objective:** Investigate the way in which water is transported within plants, comparing different species.	*I can tell you how water is transported in a plant.*	*I can tell you how water is transported in a plant, comparing different species.*
KS 2 Y3	Plants	[KEY] Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. ↳ **GD objective:** Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal using specific examples of different flowers from plants.	*I know that a flower is important in the life cycle of a plant as the flower helps the plant to pollenate, create a seed and then disperse the seed.*	*I know that a flower is important in the life cycle of a plant as the flower helps the plant to pollinate, create a seed and then disperse the seed. I know that different plants disperse seeds in different ways and can give examples of each using different flower types.*
KS 2 Y3	Animals			
KS 2 Y3	Animals	[KEY] 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. ↳ **GD objective:** Identify and explain why animals, including humans, need the right types and amount of nutrition for specific processes within the body.	*I know that animals (including humans) need the right types of nutrition and they get nutrition from what they eat.*	*I can explain why animals (including humans) need the right types of nutrition and they get nutrition from what they eat.*
KS 2 Y3	Animals	[KEY] Identify that humans and some other animals have skeletons and muscles for support, protection and movement. ↳ **GD objective:** Identify that humans and a range of other animals have skeletons and muscles which vary in their role of support, protection and	*I know that humans and some other animals have skeletons and muscles for support, protection and movement.*	*I know that humans and a range of other animals have skeletons and muscles for support, protection and movement.*

		movement.		
KS 2 Y3	Rocks			
KS 2 Y3	Rocks	[KEY] Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. ↳ **GD objective:** Compare and organise different kinds of rocks on the basis of their appearance and physical properties.	*I can group and compare different rock types based on their appearance and properties.*	*I can organise and compare different rock types based on their appearance and properties.*
KS 2 Y3	Rocks	[KEY] Describe in simple terms how fossils are formed when things that have lived are trapped within rock. ↳ **GD objective:** Describe with examples how fossils are formed when things that have lived are trapped within rock.	*I know how fossils and formed.*	*I know how fossils and formed and can describe the scientific process.*
KS 2 Y3	Rocks	[KEY] Recognise that soils are made from rocks and organic matter. ↳ **GD objective:** Recognise that soils are made from rocks and organic matter and soils from different regions vary.	*I know that soil is made from rocks and rotting materials such as leaves or plants.*	*I know that soil is made from rocks and rotting materials such as leaves or plants, and that soils from different regions vary.*
KS 2 Y3	Light			
KS 2 Y3	Light	[KEY] Recognise that they need light in order to see things and that dark is the absence of light. ↳ **GD objective:** Recognise and explain why they need light in order to see things and that dark is the absence of light.	*I understand that we need light to see things around us, and that if there is no light, then we have darkness.*	*I can explain why we need light to see things around us, and that if there is no light, then we have darkness.*
KS 2 Y3	Light	[KEY] Notice that light is reflected from surfaces. ↳ **GD objective:** Notice that light is reflected from surfaces and explain this using scientific terminology.	*I know that light is reflected from surfaces.*	*I know that light is reflected from surfaces and I can explain this using scientific terminology.*
KS 2 Y3	Light	[KEY] Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. ↳ **GD objective:** Recognise that light directly from the sun can be dangerous and evaluate different ways to protect their eyes.	*I know that light direct from the sun can be dangerous and our eyes should be protected.*	*I know that light direct from the sun can be dangerous to our eyes and I have evaluated different ways to protect my eyes*
KS 2 Y3	Light	[KEY] Recognise that shadows are formed when the light from a light source is blocked by a solid object. ↳ **GD objective:** Explain that shadows are formed when the light from a light source is blocked by a solid or semi-solid object.	*I know that a shadow is made when light is blocked by an object.*	*I can explain that a dark or light shadow is made when light is blocked by a solid or semi-solid object.*
KS 2 Y3	Light	[KEY] Find patterns in the way that the size of shadows change. ↳ **GD objective:** Independently identify and investigate a pattern in the way that the size of shadows change.	*I can describe the pattern in the way a shadow changes when I move the object or the light.*	*I can investigate a pattern in the way a shadow changes when I move the object or the light.*
KS 2 Y3	Forces			
KS 2 Y3	Forces	[KEY] Compare how things move on different surfaces. ↳ **GD objective:** Compare and independently describe how and why things move differently on different surfaces.	*I can describe how the same object may move differently on different surfaces - such as on a road, on ice, on a table or an the carpet.*	*I can compare and describe how the same object may move differently on different surfaces independently- such as on a road, on ice, on a table or an the carpet.*

KS 2 Y3	Forces	[KEY] Notice that some forces need contact between two objects, but magnetic forces can act at a distance. ↳ **GD objective:** Notice and describe how some forces need contact between two objects, but magnetic forces can act at a distance.	*I know that many forces need contact between objects to pass on a force (such as pushing or pulling an object), but some forces (such as magnetic forces or gravity) do not need to have contact.*	*I know and can describe examples of how many forces need contact between objects to pass on a force (such as pushing or pulling an object), but some forces (such as magnetic forces or gravity) do not need to have contact.*
KS 2 Y3	Forces	[KEY] Observe how magnets attract or repel each other and attract some materials and not others. ↳ **GD objective:** Observe and describe how magnets attract or repel each other and attract some materials and not others, giving specific examples.	*I know that magnets can attract and repel each other and that magnets attract some materials but not all materials.*	*I know and can describe how magnets can attract and repel each other and that magnets attract some materials but not all materials.*
KS 2 Y3	Forces	[KEY] 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. ↳ **GD objective:** Compare, contrast and organise a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify a range of magnetic materials.	*I can group together materials that are attracted by a magnet and others that are not. I know some materials that are always attracted to magnets.*	*I can organise materials that are attracted by a magnet and others that are not. I know a list of materials that are always attracted to magnets.*
KS 2 Y3	Forces	[KEY] Describe magnets as having two poles. ↳ **GD objective:** Describe magnets as having two poles and use this in investigations to answer or pose questions.	*I know that magnets have two poles.*	*I know that magnets have two poles and have used this in investigations.*
KS 2 Y3	Forces	[KEY] Predict whether two magnets will attract or repel each other, depending on which poles are facing. ↳ **GD objective:** Predict accurately, based on prior evidence, whether two magnets will attract or repel each other, depending on which poles are facing.	*I know that like poles on a magnet repel and opposite poles on magnets attract.*	*I know that like poles on a magnet repel and opposite poles on magnets attract and can use this to predict the outcome of an investigation*

SCIENCE Key Stage 2 Year 4

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 2 Y4	Working Scientifically			
KS 2 Y4	Working Scientifically	[KEY] Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. ↳ **GD objective:** Independently using results to draw deeper conclusions, make predictions for new values, suggest improvements and raise further, secondary questions.	*I use my results to draw a conclusion and make predictions or suggest improvements for answering a different question or repeating my test.*	*I use my results independently to draw a range of conclusions and make predictions or suggest improvements for answering a different question or repeating my test.*
KS 2 Y4	Working Scientifically	[KEY] Identifying differences, similarities or changes related to simple scientific ideas and processes. ↳ **GD objective:** Evaluating differences, similarities or changes related to scientific ideas and processes.	*I can identify differences, similarities or changes when making comparisons in my experiments or scientific learning.*	*I can evaluate differences, similarities or changes when making comparisons in my experiments or scientific learning.*
KS 2 Y4	Working Scientifically	[KEY] Using straightforward scientific evidence to answer questions or to support their findings. ↳ **GD objective:** Using a range of straightforward scientific evidence from more than one source to answer questions or to support their findings.	*I support my answers or conclusions by pointing out the scientific evidence.*	*I support my answers or conclusions by using a range of scientific evidence.*
KS 2 Y4	Working Scientifically	[KEY] Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. ↳ **GD objective:** Independently report in detail on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	*I can report my conclusion from the data I have measured.*	*I can report in detail my conclusion from the data I have measured independently.*
KS 2 Y4	Working Scientifically	[KEY] Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. ↳ **GD objective:** Confidently gather, record, classify and present more complex data in a variety of ways to help in answering questions.	*I can gather the data I need to answer a scientific question and then present them in an appropriate way (such as a table, grid or graph).*	*I can confidently gather the data I need to answer a scientific question and then present them in an appropriate and detailed way (such as a table, grid or graph).*
KS 2 Y4	Working Scientifically	[KEY] Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. ↳ **GD objective:** Recording independent findings using specific scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	*I can record my findings in labelled diagrams, keys, bar charts or tables.*	*I can independently record my findings accurately in labelled diagrams, keys, bar charts or tables.*
KS 2 Y4	Working Scientifically	[KEY] Setting up simple practical enquiries, comparative and fair tests. ↳ **GD objective:** Setting up practical enquiries, comparative and fair tests.	*I can set up a practical fair test experiment to answer a scientific question.*	*I can set up a range of practical fair test experiments confidently to answer a scientific question.*
KS 2 Y4	Working Scientifically	[KEY] Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. ↳ **GD objective:** Confidently make systematic and careful observations and, where appropriate, independently taking accurate measurements	*I can make careful observations and record accurate measurements (for example in mm or g) using equipment or a data logger.*	*I can make careful observations confidently and record accurate measurements independently (for example in mm or g) using equipment or a data logger.*

		using standard units, using a range of equipment, including thermometers and data loggers.		
KS 2 Y4	Working Scientifically	[KEY] Asking relevant questions and using different types of scientific enquiries to answer them. ↳ **GD objective:** Independently asking specific and relevant questions and using different types of scientific enquiries to answer them.	*I can ask relevant questions and use different types of scientific enquiries to answer them.*	*I can ask relevant questions independently and use different types of scientific enquiries to answer them.*
KS 2 Y4	Living Things Habitats			
KS 2 Y4	Living Things Habitats	[KEY] Recognise that living things can be grouped in a variety of ways. ↳ **GD objective:** Recognise that living things can be organised in a variety of scientific ways and suggest valid reasons why.	*I can group living things in many ways - such as their size, their appearance, their habitat or needs.*	*I can organise living things in scientific ways - such as their habitat, feeding habits or needs, and justify my choices.*
KS 2 Y4	Living Things Habitats	[KEY] Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. ↳ **GD objective:** Explore and independently use more complex classification keys to help organise, identify independently and name a variety of living things in their local and wider environment.	*I know how to use a classification key in science to identify an animal or plant.*	*I know how to use a more detailed classification key in science to organise, classify and identify an animal or plant.*
KS 2 Y4	Living Things Habitats	[KEY] Recognise that environments can change and that this can sometimes pose dangers to living things. ↳ **GD objective:** Recognise that environments can change and that this can sometimes pose dangers to living things if the change is too rapid, using specific examples.	*I know that an environment may change over time, and this can be dangerous for the living things in the environment.*	*I know that an environment may change over time, and I can use specific examples to explain why this can be dangerous for the living things in the environment.*
KS 2 Y4	Animals			
KS 2 Y4	Animals	[KEY] Describe the simple functions of the basic parts of the digestive system in humans. ↳ **GD objective:** Describe the functions of the parts of the digestive system in humans.	*I can describe some of the ways food is digested in the digestive system in humans.*	*I can describe the ways food is digested in the digestive system in humans.*
KS 2 Y4	Animals	[KEY] Identify the different types of teeth in humans and their simple functions. ↳ **GD objective:** Identify and compare the different types of teeth in humans and explain their functions, comparing them with animal examples.	*I know humans have different types of teeth and how each tooth type has a different job when eating.*	*I know humans have different types of teeth and can compare each tooth type and their different jobs when eating and talk about how this is similar to other animal teeth.*
KS 2 Y4	Animals	[KEY] Construct and interpret a variety of food chains, identifying producers, predators and prey. ↳ **GD objective:** Organise, construct and interpret a variety of more complex food chains independently, identifying producers, predators and prey.	*When I build a food chain, I can tell you what are the producers, predators and prey.*	*When I build a bigger food chain, I can tell you what are the producers, predators and prey independently.*
KS 2 Y4	States of Matter			
KS 2 Y4	States of Matter	[KEY] Compare and group materials together, according to whether they are solids, liquids or gases. ↳ **GD objective:** Compare, contrast and oragnise materials together,	*I can describe the differences between solids, liquids or gases and use this to group materials.*	*I can organise and explain the differences between solids, liquids or gases and use this to organise*

		according to whether they are solids, liquids or gases.		*materials.*
KS 2 Y4	States of Matter	[KEY] 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). ↳ **GD objective:** Explain how some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).	*I know that some materials change to a different state when they are heated.*	*I can explain how some materials change to a different state when they are heated.*
KS 2 Y4	States of Matter	[KEY] Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. ↳ **GD objective:** Identify and give examples of the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature using scientific vocabulary.	*I can talk about evaporation and condensation as parts of the water cycle and I know that more water evaporates when the temperature is higher.*	*I can discuss evaporation and condensation as parts of the water cycle and I know that more water evaporates when the temperature is higher.*
KS 2 Y4	Sound			
KS 2 Y4	Sound	[KEY] Identify how sounds are made, associating some of them with something vibrating. ↳ **GD objective:** Describe and explain how sounds are created, identifying for some of them what is vibrating.	*I know how sounds are made.*	*I can describe in detail know how sounds are made.*
KS 2 Y4	Sound	[KEY] Recognise that vibrations from sounds travel through a medium to the ear. ↳ **GD objective:** Recognise and explain how vibrations from sounds need a medium to travel the ear.	*I know that sounds travel through air (or water) to reach the ear.*	*I can explain how sounds travel through air (or water) to reach the ear and without a material to travel through, we would not hear the sound.*
KS 2 Y4	Sound	[KEY] Find patterns between the pitch of a sound and features of the object that produced it. ↳ **GD objective:** Observe, test and evaluate patterns between the pitch of a sound and features of the object that produced it.	*I can talk about how the size or shape of an object creating a sound can effect what the sound will be like.*	*I can evaluate how the size or shape of an object creating a sound can effect what the sound will be like.*
KS 2 Y4	Sound	[KEY] Find patterns between the volume of a sound and the strength of the vibrations that produced it. ↳ **GD objective:** Observe and explain patterns between the volume of a sound and the strength of the vibrations that produced it.	*I can talk about how the strength of the vibrations of an object creating a sound can affect how loud the sound will be.*	*I can observe and explain how the strength of the vibrations of an object creating a sound can affect how loud the sound will be.*
KS 2 Y4	Sound	[KEY] Recognise that sounds get fainter as the distance from the sound source increases. ↳ **GD objective:** Justify with scientific explanations why sounds get fainter as the distance from the sound source increases.	*I know that sounds get fainter as you move away from the place where the sound is being made.*	*I can justify why sounds get fainter as you move away from the place where the sound is being made.*
KS 2 Y4	Electricity			
KS 2 Y4	Electricity	[KEY] Identify common appliances that run on electricity. ↳ **GD objective:** Identify a wide range of appliances that run on electricity.	*I can list a number of common objects that need electricity to function.*	*I can list a range of appliances that need electricity to function.*
KS 2 Y4	Electricity	[KEY] Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.	*I can build a series circuit, naming the cells, wires,*	*I can plan and build a series circuit independently,*

		↳ **GD objective:** Independently plan and construct series electrical circuits, identifying and naming its parts, including cells, wires, bulbs, switches and buzzers.	*bulbs, switches and buzzers.*	*naming the cells, wires, bulbs, switches and buzzers.*
KS 2 Y4	Electricity	[KEY] 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. ↳ **GD objective:** Identify, predict and explain whether or not a lamp will light in a series circuit, based on whether or not the lamp is part of a complete loop with a battery and fix a disconnected circuit.	*I can tell whether a bulb will light when I look at a circuit as I know the circuit must be a complete loop with a battery.*	*I predict and explain whether a bulb will light or not when I look at a circuit as I know the circuit must be a complete loop with a battery and can fix a disconnected circuit.*
KS 2 Y4	Electricity	[KEY] Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. ↳ **GD objective:** #Explain that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a series circuit using scientific terminology.	*I know what a switch can do when I build or look at a circuit.*	*I can explain what a switch can do when I build or look at a circuit using scientific terminology.*
KS 2 Y4	Electricity	[KEY] Recognise some common conductors and insulators, and associate metals with being good conductors. ↳ **GD objective:** Recognise many common conductors and insulators, and explain using scientific vocabulary how metals are good conductors.	*I know metals are good conductors of electricity - and can name some more and also name some good insulators.*	*I can explain why metals are good conductors of electricity using scientific vocabulary - and can name a range of them and also name some good insulators.*

SCIENCE Key Stage 2 Year 5

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 2 Y5	Working Scientifically			
KS 2 Y5	Working Scientifically	[KEY] Beginning to identify scientific evidence that has been used to support or refute ideas or arguments. ↳ **GD objective:** Beginning to identify more scientific evidence that has been used to support or refute ideas or arguments.	*I support my argument by using some detailed scientific evidence.*	*I support my argument by using a range of scientific evidence.*
KS 2 Y5	Working Scientifically	[KEY] Beginning to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. ↳ **GD objective:** Beginning to plan a wider range of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	*I can plan scientific experiments, stating which one variable will remain constant.*	*I can plan different types of scientific experiments, stating which one variable will remain constant.*
KS 2 Y5	Working Scientifically	[KEY] Beginning to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. ↳ **GD objective:** Beginning to take a wider set of measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	*I take measurements accurately and repeat my measurements to improve my accuracy too.*	*I confidently take more measurements accurately and repeat my measurements to improve my accuracy too.*
KS 2 Y5	Working Scientifically	[KEY] Beginning to record data and results of using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. ↳ **GD objective:** Beginning to more independently record data and results of using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	*I can explore a range of graphs and charts such as scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.*	*I can explore a range of graphs and charts such as scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs and explain what they show.*
KS 2 Y5	Working Scientifically	[KEY] Beginning to use test results to make predictions to set up further comparative and fair tests. ↳ **GD objective:** Beginning to use test results to make more specific predictions to set up further comparative and fair tests.	*I look at experiment test results and can refine tests to make them fairer.*	*I look at experiment test results and can refine tests to make them fairer and predict future results.*
KS 2 Y5	Working Scientifically	[KEY] Beginning to report and represent findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. ↳ **GD objective:** Beginning to report and represent findings from enquiries, including improved conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.	*I can explain my conclusions using a report or graph to describe the key evidence to support my answers.*	*I can explain my conclusions in more detail using a report or graph to describe the key evidence to support my answers.*
KS 2 Y5	Living Things Habitats			

KS 2 Y5	Living Things Habitats	[KEY] Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. ↳ **GD objective:** Describe, compare and contrast the differences in the life cycles of a mammal, an amphibian, an insect and a bird.	*I can speak about the different life cycles of mammals, amphibians, insects and birds.*	*I can compare and contrast the different life cycles of mammals, amphibians, insects and birds.*
KS 2 Y5	Living Things Habitats	[KEY] Describe the life process of reproduction in some plants and animals. ↳ **GD objective:** Describe the life process of reproduction in some plants and animals using specific examples to identify their similarities and differences.	*I can describe the process of reproduction in some plants and animals.*	*I can use specific examples to describe the process of reproduction in some plants and animals, and identify their similarities and differences.*
KS 2 Y5	Animals			
KS 2 Y5	Animals	[KEY] Describe the changes as humans develop to old age. ↳ **GD objective:** Describe, using examples and scientific terminology, the changes as humans develop through stages to old age.	*I know the stages of change as humans develop to old age.*	*I can use examples and scientific terminology to describe the stages of change as humans develop to old age.*
KS 2 Y5	Properties of Materials			
KS 2 Y5	Properties of Materials	[KEY] 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. ↳ **GD objective:** Evaluate and organise everyday materials on the basis of their properties and multiple properties such as their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.	*I can group together everyday materials based on their properties such as their hardness, solubility, transparency, conductivity (electrical and heat), and magnetism.*	*I can evaluate and organise everyday materials based on their multiple properties such as their hardness, solubility, transparency, conductivity (electrical and heat), and magnetism, and I can justify my choices.*
KS 2 Y5	Properties of Materials	[KEY] Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. ↳ **GD objective:** Explain and give examples of why some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.	*I know that some materials will dissolve in liquid to form a solution, and I can describe how to recover a substance from a solution.*	*I can explain with examples why some materials will dissolve in liquid to form a solution, and I can describe how to recover a substance from a solution.*
KS 2 Y5	Properties of Materials	[KEY] Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. ↳ **GD objective:** Apply knowledge of solids, liquids and gases to explain how mixtures might be separated to solve problems, including multiple steps of filtering, sieving and evaporating.	*I can decide how mixtures might be separated, choosing from filtering, sieving and evaporating by looking at the materials that need to be separated.*	*I can explain how mixtures might be separated through more than one process, choosing from filtering, sieving and evaporating by looking at the materials that need to be separated.*
KS 2 Y5	Properties of Materials	[KEY] Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. ↳ **GD objective:** Give justified reasons and specific examples, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.	*I can describe why some materials are used for a specific purpose, such as glass for windows or copper for wires.*	*I can justify why some materials are used for a specific purpose, such as glass for windows or copper for wires.*
KS 2 Y5	Properties of Materials	[KEY] Demonstrate that dissolving, mixing and changes of state are reversible changes.	*I can describe how dissolving, mixing and changes of state are reversible changes.*	*I can demonstrate and explain how dissolving, mixing and changes of state are reversible changes.*

		↳ **GD objective:** Demonstrate and explain why dissolving, mixing and changes of state are reversible changes.		
KS 2 Y5	Properties of Materials	[KEY] 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. ↳ **GD objective:** Explain in greater depth using scientific terminology 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.	*I understand that some changes to materials, where new materials are formed, are not reversible, such as the burning or cooking of materials.*	*I can use scientific terminology to explain why some changes to materials, where new materials are formed, are not reversible, such as the burning or cooking of materials.*
KS 2 Y5	Earth Space			
KS 2 Y5	Earth Space	[KEY] Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. ↳ **GD objective:** Accurately describe the movement of the Earth, and other specific planetary examples, relative to the Sun in the solar system and how their orbits vary in length and shape.	*I know how the Earth and other planets move around the solar system.*	*I know exactly how the Earth and other planets move around the solar system and can describe their orbit patterns and lengths.*
KS 2 Y5	Earth Space	[KEY] Describe the movement of the Moon relative to the Earth. ↳ **GD objective:** Describe in greater depth the movement of the Moon relative to the Earth and Sun.	*I can describe how the Moon moves around the Earth.*	*I can describe in greater depth how the Moon moves around the Earth and Sun.*
KS 2 Y5	Earth Space	[KEY] Describe the Sun, Earth and Moon as approximately spherical bodies. ↳ **GD objective:** Use scientific terminology to describe the Sun, Earth and Moon as approximately spherical bodies.	*I know that the Sun, Earth and Moon are approximately spherical in shape.*	*I can use scientific terminology to describe that the Sun, Earth and Moon are approximately spherical in shape.*
KS 2 Y5	Earth Space	[KEY] Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. ↳ **GD objective:** Use the idea of the Earth's rotation to explain in detail day, night, the apparent movement of the sun across the sky and the different time zones across the planet.	*I know that day and night occur as the Earth rotates.*	*I know that day and night occur as the Earth rotates and can explain this scientific process and its effect to create time zones in detail.*
KS 2 Y5	Forces			
KS 2 Y5	Forces	[KEY] Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. ↳ **GD objective:** Independently explain why unsupported objects fall towards a planet because of the force of gravity acting between the planet and the falling object; and the size of the planet has a direct effect on the strength of gravity.	*I can describe the force of gravity to explain why objects fall.*	*I can describe the force of gravity to explain in detail why objects fall, and know that gravity is relative to the size of the planet*
KS 2 Y5	Forces	[KEY] Identify the effects of air resistance, water resistance and friction, that act between moving surfaces. ↳ **GD objective:** Identify and explain the effects of air resistance, water resistance and friction, that act between moving surfaces, making links to investigations.	*I know that air resistance, water resistance and friction all act on objects to slow them down.*	*I know that air resistance, water resistance and friction all act on objects to slow them down and can use investigations to help explain this effect.*

KS 2 Y5	Forces	[KEY] Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. ↳ **GD objective:** Recognise and can explain why some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	*I know that levers, pulleys and gears can turn a small force into a greater force.*	*I can explain why levers, pulleys and gears can turn a small force into a greater force.*

SCIENCE Key Stage 2 Year 6

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 2 Y6	Working Scientifically			
KS 2 Y6	Working Scientifically	[KEY] Identifying scientific evidence that has been used to support or refute ideas or arguments. ↳ **GD objective:** Independently identify and evaluate scientific evidence from multiple sources that has been used to support or refute ideas or arguments.	*I support an argument using specific scientific evidence.*	*I support an argument using specific scientific evidence independently.*
KS 2 Y6	Working Scientifically	[KEY] Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. ↳ **GD objective:** Independently planning different types of multiple-step scientific enquiries to answer questions, including recognising and controlling variables where necessary.	*I can plan scientific experiments to answer questions, including listing the variables in the test and stating which one variable will remain constant.*	*I can plan longer scientific experiments independently to answer questions, including listing the variables in the test and stating which one variable will remain constant.*
KS 2 Y6	Working Scientifically	[KEY] Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. ↳ **GD objective:** Confidently take detailed and accurate measurements, using a range of scientific equipment, with increasing precision, taking repeat readings when appropriate.	*I take measurements very accurately and repeat my measurements to improve my accuracy too.*	*I confidently take measurements very accurately and repeat my measurements to improve my precision too.*
KS 2 Y6	Working Scientifically	[KEY] Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. ↳ **GD objective:** #Precisely record and independently organise data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	*I can use and explore a range of graphs and charts such as scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.*	*I can accurately create, organise and explore a range of graphs and charts such as scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.*
KS 2 Y6	Working Scientifically	[KEY] Using test results to make predictions to set up further comparative and fair tests. ↳ **GD objective:** Using test results to accurately make predictions to set up and justify further comparative and fair tests to challenge data in greater depth.	*I look at experiment test results and make predictions to answer further scientific questions or refine tests to make them fairer.*	*I look at experiment test results and use this information to develop further scientific questions or refine tests to make them fairer.*
KS 2 Y6	Working Scientifically	[KEY] Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. ↳ **GD objective:** Reporting and presenting findings independently and concisely from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.	*I can explain my conclusions in detail using a report or graph to describe the key evidence to support my answers and highlight the specific causes of the outcomes of my experiment.*	*I can explain my conclusions in detail using a report or graph to describe the key evidence to support my answers and highlight the specific causes of the outcomes of my experiment independently.*

KS 2 Y6	Living Things Habitats			
KS 2 Y6	Living Things Habitats	[KEY] 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. ↳ **GD objective:** Describe in greater detail how living things are scientifically classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals justifying their choices.	*I can describe the groups I classify living things into.*	*I can describe in greater detail the groups I scientifically classify living things into, justifying my choices.*
KS 2 Y6	Living Things Habitats	[KEY] Give reasons for classifying plants and animals based on specific characteristics. ↳ **GD objective:** Independently give accurately justified reasons for classifying plants and animals based on specific scientific characteristics.	*I can describe why I classify plants and animals in certain ways.*	*I can justify why I classify plants and animals in certain ways using their scientific characteristics.*
KS 2 Y6	Animals			
KS 2 Y6	Animals	[KEY] Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. ↳ **GD objective:** Identify and independently name the main parts of the human circulatory system, and explain the functions of the heart, blood vessels and blood using scientific vocabulary.	*I can describe and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.*	*I can identify and describe the main parts of the human circulatory system independently, and explain the functions of the heart, blood vessels and blood using scientific vocabulary*
KS 2 Y6	Animals	[KEY] Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. ↳ **GD objective:** Understand the connected impact of diet, exercise, drugs and lifestyle on the way their bodies function, recommending what constitutes a healthy lifestyle.	*I know that good and bad diet, exercise, drugs and lifestyle all have an effect on how the body functions.*	*I understanding the connected impact of good and bad diet, exercise, drugs and lifestyle all have an effect on how the body functions and can recommend what makes up a healthy lifestyle.*
KS 2 Y6	Animals	[KEY] Describe the ways in which nutrients and water are transported within animals, including humans. ↳ **GD objective:** Describe in depth the ways in which nutrients and water are transported and used within animals, including humans.	*I know how nutrients and water are transported within animals, including humans.*	*I can explain in greater detail how nutrients and water are transported and used within animals, including humans.*
KS 2 Y6	Evolution			
KS 2 Y6	Evolution	[KEY] Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. ↳ **GD objective:** Recognise and discuss how living things have changed over time and that fossils provide facts and debated information about living things that inhabited the Earth millions of years ago.	*I understand that living things have changed over time and that fossils show us the types of animals that lived millions of years ago.*	*I understand and can discuss how living things have changed over time and that fossils give us detailed clues about the types of animals that lived millions of years ago.*
KS 2 Y6	Evolution	[KEY] Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. ↳ **GD objective:** Recognise and explain that living things produce offspring of the same kind, but normally offspring vary and are not	*I know that living things have babies but each baby is similar but not identical to their parents.*	*I know that living things have babies and can use examples to demonstrate that each baby is similar but not identical to their parents.*

		identical to their parents		
KS 2 Y6	Evolution	[KEY] Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. ↳ **GD objective:** Evaluate and explain how animals and plants are adapted to suit their environment in different ways with reference to examples, and that adaptation may lead to evolution.	*I know that animals and plants have adapted or evolved to suit the environment they live in.*	*I can evaluate and explain how animals and plants have adapted or evolved to suit the environment they live in using specific examples.*
KS 2 Y6	Light			
KS 2 Y6	Light	[KEY] Recognise that light appears to travel in straight lines. ↳ **GD objective:** Recognise and justify why light appears to travel in straight lines.	*I know light travels in straight lines.*	*I know light travels in straight lines and can explain how I know this.*
KS 2 Y6	Light	[KEY] 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. ↳ **GD objective:** Use the knowledge that light travels in straight lines to explain with scientific vocabulary and diagrams that objects are seen because they give out or reflect light into the eye.	*I know we can see objects because the light from the object or reflected from the object travels into the eye.*	*I know we can see objects because the light from the object or reflected from the object travels into the eye and can explain this with scientific vocabulary and diagrams.*
KS 2 Y6	Light	[KEY] 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. ↳ **GD objective:** Explain in specific detail and using scientific vocabulary that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.	*I can draw light lines from an object into the eye to show how we see.*	*I can draw accurate light lines from an object into the eye to show how we see and explain this using scientific vocabulary.*
KS 2 Y6	Light	[KEY] Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. ↳ **GD objective:** Use the knowledge that light travels in straight lines to independently explain how shadows have a similar shape as the objects that cast them.	*I can show that light causes shadows that are smaller or larger shapes of the original object.*	*I can explain using diagrams or examples why light causes shadows that are smaller or larger shapes of the original object.*
KS 2 Y6	Electricity			
KS 2 Y6	Electricity	[KEY] Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. ↳ **GD objective:** Associate the brightness of a lamp or lamps or the volume of a buzzer or buzzers with the number and voltage of cells used in the circuit, correctly predicting and explaining outcomes of planned circuits.	*I know a lamp is brighter and a buzzer is louder if the voltage of battery used is higher.*	*I know a lamp is brighter and a buzzer is louder if the voltage of battery used is higher and can use this to predict the outcome of investigations or planned circuits.*
KS 2 Y6	Electricity	[KEY] 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. ↳ **GD objective:** Compare and give justified reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches and identify real life uses.	*I can describe how a circuit functions, including the brightness of bulbs and the loudness of buzzers based on the way a circuit is built and the on/off position of switches.*	*I can describe and justify how a circuit functions, including giving reasons why the brightness of bulbs and the loudness of buzzers are based on the way a circuit is organised and the on/off position of switches, identifying real life uses.*
KS 2 Y6	Electricity	[KEY] Use recognised symbols when representing a simple circuit in a	*I can draw a circuit diagram using circuit symbols for*	*I can draw a detailed circuit diagram independently*

		diagram. ↳ **GD objective:** Independently use recognised symbols to draw detailed circuit diagrams.	*lights, wires, switches and other parts.*	*using circuit symbols for lights, wires, switches and other parts.*