Science Progression Map

Year 1								
	Seasonal Changes (Introduce in Autumn 1)	• Observe changes across the four seasons • Observe and describe weather associated with the seasons and how day length varies • Time lapse videos	Everyday Materials (Autumn)	• 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	Plants (Spring)	• Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees • Identify and describe the basic structure of a variety of common flowering plants, including trees	Animals Including Humans (summer)	• Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals • Identify and name a variety of common animals that are carnivores, herbivores and omnivores • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense
Working Scientifically								
Asking Questions	Ask simple questions and recognise that they can be answered in different ways							
Measuring and Recording	Observe closely, using simple equipment Perform simple tests Gather and record data to help in answering questions							
Concluding	Identify and classify							

Science Progression Map

	Use their observations and ideas to suggest answers to questions
Evaluating	
Topics	
Plants	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees Identify and describe the basic structure of a variety of common flowering plants, including trees
Animals, Including Humans	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Identify and name a variety of common animals that are carnivores, herbivores and omnivores Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense
Seasonal Change	Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies
Everyday Materials	Distinguish between an object and the material from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Describe the simple physical properties of a variety of everyday materials Compare and group together a variety of everyday materials on the basis of their simple physical properties
Continuous Provision	
What is the weather like today? Seasonal Changes- Autumn walk, Winter walk, Spring walk, Summer walk Introduce seasonality Curiosity cube	

Science Progression Map

Year 2								
	Materials (Autumn)	• 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	Plants (Spring)	• Observe and describe how seeds and bulbs grow into mature plants • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	Animals Including Humans (Summer 1)	• Notice that animals, including humans, have offspring which grow into adults • Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene	Living Things and their habitats (Summer 2)	• Explore and compare the difference between things that are living, dead, and things that have never been alive • Identify that most living things live in habitats to which they are suited and describe how different habitats provide 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 • 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
Working Scientifically								
Asking Questions	Ask simple questions and recognise that they can be answered in different ways							
Measuring and Recording	Observe closely, using simple equipment Perform simple tests Gather and record data to help in answering questions							

Science Progression Map

Concluding	Identify and classify Use their observations and ideas to suggest answers to questions
Evaluating	
Topics	
Plants	Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy
Animals, Including Humans	Notice that animals, including humans, have offspring which grow into adults Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene
Living Things and Their Habitats	Explore and compare the difference between things that are living, dead, and things that have never been alive Identify that most living things live in habitats to which they are suited and describe how different habitats provide 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 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
Uses of Everyday Materials	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
Continuous Provision	
What is the weather like today? Growth diary for plants Seasons Talking about the effects of exercise on the body Hygiene (wash hands, cleaning teeth) Curiosity cube	

Science Progression Map

Year 3										
	Animals Including Humans (Autumn 1)	• 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	Forces and Magnets (Autumn 2)	• 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 on 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	Plants (Spring)	• 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	Rocks (Summer 1)	• Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties • Describe in simple terms how fossils are formed when things that have lived are trapped within rock • Recognise that soils are made from rocks and organic matter	Light (Summer 2)	• Recognise that they need light in order to see things and that the 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 a solid object • Find patterns in the way that the size of shadows changes

Science Progression Map

Working Scientifically	
Asking Questions	Ask relevant questions and use different types of scientific enquiries to answer them Set up simple practical enquiries, comparative and fair tests
Measuring and Recording	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Gather, record, classify and present data in a variety of ways to help in answering questions
Concluding	Identify differences, similarities or changes related to simple scientific ideas and processes Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Use straightforward scientific evidence to answer questions or to support their findings
Evaluating	Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
Topics	
Plants	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant Investigate the way in which water is transported within plants Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal
Animals, Including Humans	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat Identify that humans and some other animals have skeletons and muscles for support, protection and movement
Light	Recognise that they need light in order to see things and that the 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 a solid object Find patterns in the way that the size of shadows changes
Forces and Magnets	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 on 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

Science Progression Map

Rocks	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties Describe in simple terms how fossils are formed when things that have lived are trapped within rock Recognise that soils are made from rocks and organic matter
Continuous Provision	
What is the weather like today? Plant diaries Measuring shadows Nutrition- talk about what we eat for breakfast, lunch, healthy choice etc Curiosity cube	

Science Progression Map

Year 3/4												
	Animals Including Humans (Autumn 1)	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 Describe the simple functions of the basic parts of the digestive system in humans (Y4) Identify the different types of teeth in humans and their simple functions (Y4) Construct and interpret a variety of food chains, identifying producers, predators and prey (Y4)	Forces and Magnets (Autumn 2)	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 on 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	States of Matter (Spring 1)	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	Plants and Living things and their Habitats (Spring 2)	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 Recognise that living things can be grouped in a variety of ways (Y4) Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment (Y4) Recognise that environments can change and that this can sometimes pose dangers to living things (Y4)	Rocks and Electricity (Summer 1)	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 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	Light and Sound (Summer 2)	Recognise that they need light in order to see things and that the dark is the absence of light Find patterns in the way that the size of shadows changes 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 a solid object Identify how sounds are made, associating some of them with something vibrating (Y4) Recognise that vibrations from sounds travel through a medium to the ear (Y4) Find patterns between the pitch of a sound and features of the object that produced it (Y4) Find patterns between the volume of a sound and the strength of the vibrations that produced it (Y4) Recognise that sounds get fainter as the distance from the sound source increases (Y4)

Science Progression Map

Working Scientifically	
Asking Questions	Ask relevant questions and use different types of scientific enquiries to answer them Set up simple practical enquiries, comparative and fair tests
Measuring and Recording	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Gather, record, classify and present data in a variety of ways to help in answering questions
Concluding	Identify differences, similarities or changes related to simple scientific ideas and processes Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Use straightforward scientific evidence to answer questions or to support their findings
Evaluating	Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
Topics	
Plants (Y3)	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
Living Things and Their Habitats (Y4)	Recognise that living things can be grouped in a variety of ways Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Recognise that environments can change and that this can sometimes pose dangers to living things
Animals, Including Humans	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 (Y3) Identify that humans and some other animals have skeletons and muscles for support, protection and movement (Y3) Describe the simple functions of the basic parts of the digestive system in humans (Y4) Identify the different types of teeth in humans and their simple functions (Y4) Construct and interpret a variety of food chains, identifying producers, predators and prey (Y4)
Light (Y3)	Recognise that they need light in order to see things and that the 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 a solid object Find patterns in the way that the size of shadows changes

Science Progression Map

Forces and Magnets (Y3)	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 on 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
Rocks (Y3)	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
States of Matter (Y4)	Compare and group materials together, according to whether they are solids, liquids or gases Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
Sound (Y4)	Identify how sounds are made, associating some of them with something vibrating Recognise that vibrations from sounds travel through a medium to the ear Find patterns between the pitch of a sound and features of the object that produced it Find patterns between the volume of a sound and the strength of the vibrations that produced it Recognise that sounds get fainter as the distance from the sound source increases
Electricity (Y4)	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
Continuous Provision	
What is the weather like today? Plant diaries Measuring shadows Nutrition- talk about what we eat for breakfast, lunch, healthy choice etc Dental hygiene- links with school nurse Curiosity cube	

NB: Every term (Autumn 1, Spring 2, Summer 2), the 10 Year 3 children will have the opportunity to complete tasks and activities relevant to Year 3 with the rest of the Year 3 children while the Year 4 children learn the content relevant to them

Science Progression Map

Year 4/5												
	Animals Including Humans (Autumn 1)	Describe the simple functions of the basic parts of the digestive system in humans (Y4) Identify the different types of teeth in humans and their simple functions (Y4) Construct and interpret a variety of food chains, identifying producers, predators and prey (Y4) Describe the changes as humans develop to old age (Y5)	Earth and Space, Forces (Autumn 2)	Describe the movement of the Earth, and other planets, relative to the Sun 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 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	States of Matter (Spring 1)	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	Living things and Their Habitats (Spring 2)	Recognise that living things can be grouped in a variety of ways (Y4) Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment (Y4) Recognise that environments can change and that this can sometimes pose dangers to living things (Y4) Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird (Y5) Describe the life process of reproduction in some plants and animals (Y5)	Electricity (Summer 1)	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	Sound (Summer 2)	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

Science Progression Map

Working Scientifically	
Asking Questions	Ask relevant questions and use different types of scientific enquiries to answer them Set up simple practical enquiries, comparative and fair tests
Measuring and Recording	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Gather, record, classify and present data in a variety of ways to help in answering questions
Concluding	Identify differences, similarities or changes related to simple scientific ideas and processes Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Use straightforward scientific evidence to answer questions or to support their findings
Evaluating	Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
Topics	
Living Things and Their Habitats	Recognise that living things can be grouped in a variety of ways (Y4) Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment (Y4) Recognise that environments can change and that this can sometimes pose dangers to living things (Y4) Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird (Y5) Describe the life process of reproduction in some plants and animals (Y5)
Animals, Including Humans	Describe the simple functions of the basic parts of the digestive system in humans (Y4) Identify the different types of teeth in humans and their simple functions (Y4) Construct and interpret a variety of food chains, identifying producers, predators and prey (Y4) Describe the changes as humans develop to old age (Y5)
Electricity (Y4)	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
States of Matter (Y4)	Compare and group materials together, according to whether they are solids, liquids or gases Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
Sound (Y4)	Identify how sounds are made, associating some of them with something vibrating Recognise that vibrations from sounds travel through a medium to the ear

Science Progression Map

	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
Earth and Space (Y5)	Describe the movement of the Earth, and other planets, relative to the Sun Describe the movement of the Moon relative to the Earth Describe the Sun, Earth and Moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky
Forces (Y5)	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
Continuous Provision	
What is the weather like today? Shadows Night and day Changes in humans, e.g. height Curiosity cube	

NB: Year 5 children in the Year 4/5 class will have some Science lessons in the Summer Term with the rest of the Year 5 children to learn about Properties and Changes of Materials.

Science Progression Map

Year 5										
	Animals Including Humans (Autumn 1)	• Describe the changes as humans develop to old age	Earth and Space (Introduce in Autumn 2, revisit in Summer 1)	• Describe the movement of the Earth, and other planets, relative to the Sun • Describe the movement of the Moon relative to the Earth • Describe the Sun, Earth and Moon as approximately spherical bodies • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	Forces (Spring 1)	• 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	Living Tings and Their Habitats (Spring 2)	• 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	Properties and Changes of Materials (summer 2)	• Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets • Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution • Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • Demonstrate that dissolving, mixing and changes of state are reversible changes • Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including • changes associated with burning and the action of acid on bicarbonate of soda
Working Scientifically										
Asking Questions	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary									

Science Progression Map

Measuring and Recording	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
Concluding	Identify scientific evidence that has been used to support or refute ideas or arguments Report and present 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
Evaluating	Use test results to make predictions to set up further comparative and fair tests
Topics	
Living Things and Their Habitats	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life process of reproduction in some plants and animals
Animals, Including Humans	Describe the changes as humans develop to old age
Earth and Space	Describe the movement of the Earth, and other planets, relative to the Sun Describe the movement of the Moon relative to the Earth Describe the Sun, Earth and Moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky
Forces	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Identify the effects of air resistance, water resistance and friction, that act between moving surfaces Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect
Properties and Changes of Materials	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic Demonstrate that dissolving, mixing and changes of state are reversible changes Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda
Continuous Provision	
What is the weather like today? Length of day Changes humans, e.g. growth	

Science Progression Map

Curiosity cube

Science Progression Map

Year 6										
	Animals Including Humans (Autumn 1)	• 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	Electricity (Autumn 2)	• 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	Living Things and Their Habitats (Spring)	• Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals • Give reasons for classifying plants and animals based on specific characteristics	Light (Summer 1)	• Recognise that light appears to travel in straight lines • Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye • Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them	Evolution and Inheritance (Summer 2)	• 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
Working Scientifically										
Asking Questions	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary									

Science Progression Map

Measuring and Recording	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
Concluding	Identify scientific evidence that has been used to support or refute ideas or arguments Report and present 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
Evaluating	Use test results to make predictions to set up further comparative and fair tests
Topics	
Living Things and Their Habitats	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics
Animals, Including Humans	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Describe the ways in which nutrients and water are transported within animals, including humans
Evolution and Inheritance	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
Light	Recognise that light appears to travel in straight lines Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
Electricity	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches Use recognised symbols when representing a simple circuit in a diagram
Continuous Provision	
What is the weather like today? Characteristics of different plants, e.g. cacti, bonsai, house plants (flowering and non-flowering) Puberty talk Curiosity cube	