Science Curriculum

Intent	Science teaching at Meadow Park Academy aims to give all children a strong understanding of the world around them whilst acquiring specific knowledge, concepts and skills to help them to think scientifically, to gain an understanding of scientific processes and an understanding of the uses and implications of science, today and for the future. Scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school. Topics such as plants are taught in Key Stage One and studied again in further detail throughout Key Stage Two. This model allows children to build upon their prior knowledge and increases their enthusiasm for the topics whilst embedding concepts and knowledge into the long-term memory. All children are encouraged to question the world around them and become independent learners in exploring possible answers for their scientific based questions. Specialist vocabulary for topics is taught and built up, and effective questioning to communicate ideas is encouraged.
Implementation	The planning and teaching of the science curriculum is designed to build on knowledge and skills taught in previous units and year groups. Science topics are not squeezed to fit into half termly blocks but planned to take the required number of lessons to ensure they are progressive and that all subject content is taught. Topics that cover weather and plants run across the year so that children can investigate the changes through the seasons. Teachers use knowledge organisers alongside the school's science progression framework to plan and teach key concepts and scientific enquiry skills in a progressive manner and support the acquisition and accumulation of knowledge. New vocabulary is planned through knowledge organisers and is taught explicitly to children, teaching the meaning of homonyms where necessary. Retrieval practice techniques are used to help children to memorise key concepts for use in future science lessons and across the curriculum. When teaching practical science, teachers combine demonstrations with opportunities for children to carry out their own investigations, gaining hands-on experience handling specialist equipment and materials.
Impact	Our science curriculum provides the foundations for our children to understand the world they live in. Through building up a body of knowledge and key concepts, our children develop a sense of excitement and curiosity, and they understand how science can be used to explain what has occurred, predict how things will behave and analyse the causes. Our children understand the value of science and enjoy working scientifically. They are able to communicate their ideas and findings with confidence and using different styles. Our children have a passion for science and engage enthusiastically in their learning. As a result, they achieve well and are keen to continue studying science as they move on to the next stage of their education.

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Long Term Overview: **Science**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	**Our body x 6** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences** **Senses x 5** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences** **Machines x 3** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences**		**Food x 7** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences** **Forces x 2** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences** **Insects x 3** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences**		**Health and Safety x 4** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences** **Plants x 3** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences** **Materials x 5** **Overview** Children will **learn about rain, ice and water; Describe why the air moves; Explore snow and melting; Discover how rainbows are formed; Learn bout seasonal changes.** **Curriculum Links** **Experiences**	
Year 1	**What is weather? (Seasonal changes)** **Overview** Children will **observe changes across the four seasons** and **observe and describe weather associated with the seasons and how day length varies.** **Curriculum Links** Geography – weather systems **Experiences** **Significant individuals**	**Who am I? All about me (Animals including humans)** **Overview** Children will **identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.** **Curriculum Links** **Experiences** **Significant individuals**	**What material should I use? (Exploring everyday materials)** **Overview** Children will **identify and name a variety of everyday materials; distinguish between an object and the material it's made from; and describe the simple physical properties of everyday materials.** They will also **compare and group together a variety of everyday materials based on their physical properties.** **Curriculum Links** DT – different uses of materials **Experiences** **Significant individuals**	**How can I help the Three Little Pigs? (Everyday materials – building)** **Overview** Children will **identify and name a variety of everyday materials; distinguish between an object and the material it's made from; and describe the simple physical properties of everyday materials.** They will also **compare and group together a variety of everyday materials based on their physical properties.** **Curriculum Links** English – Three Little Pigs Story **Experiences** **Significant individuals**	**Plants** **Overview** Children will **become familiar with common plants; identify and describe the basic structure of a variety of plants; understand how plants change over time; and observe the growth of planted flowers.** **Curriculum Links** **Experiences** **Significant individuals**	**All about animals (Animals including humans)** **Overview** Children will **identify and name a variety of common animals; describe and compare the structure of common animals and identify and name animals that are carnivores, herbivores and omnivores.** **Curriculum Links** **Experiences** **Significant individuals**
Year 2	**Uses of everyday materials** **Overview** Children will **identify and compare the suitability of a variety of everyday materials and find out how the shapes**	**Living things and their habitats** **Overview** Children will **explore and compare the differences between things that are**	**Living things and their habitats (habitats from around the world)** **Overview**	**Animals including humans - growth** **Overview** Children will **find out about and describe the basic needs of animals,**	**Animals including humans – life cycles** **Overview**	**Plants** **Overview** Children will **observe and describe how seeds and bulbs grow into mature plants; find out and describe how**

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	of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. **Curriculum Links** DT – different uses of materials **Experiences** **Significant individuals** Charles Macintosh and John McAdam	living, dead and things that have never been alive; identify and name a range of plants and animals in their habitats, including microhabitats; and describe how animals obtain their food in the form of food chains. **Curriculum Links** DT – food **Experiences**	Children will **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**. They will also **identify and name a variety of plants and animals in their habitats, including their microhabitats.** **Curriculum Links** Geography **Experiences**	**including humans, for survival and describe the importance for humans of exercise, eating the right amount of different types of food, and exercise.** **Curriculum Links** PE DT PSHE **Experiences**	Children will **notice that animals, including humans, have offspring which grow into adults.** **Curriculum Links** **Experiences**	**plants need water, light and a suitable temperature to grow and stay healthy; and understand the requirements of plants for germination, growth and survival, as well as, the processes of reproduction and growth in plants.** **Curriculum Links** **Experiences**
Year 3	**Scientific enquiry** **Overview** Children will **ask relevant questions and use different types of scientific enquiries to answer them; make systematic and careful observations and 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.** They will also **set up practical enquiries, comparative and fair tests.** **Curriculum Links** DT – different uses of materials **Experiences**	**Animals, including humans** **Overview** Children will **identify that animals, including humans, need the right types of nutrition, and that they cannot make their own food; and identify that humans and some other animals have skeletons and muscles for support, protections and movement.** **Curriculum Links** PE **Experiences**	**Rocks** **Overview** Children will **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; and recognise that soils are made from rocks and organic matter.** **Curriculum Links** Geography **Experiences**	**Forces** **Overview** Children will **notice that some forces need contact between 2 objects, but magnetic forces can work at a distance; compare how things move on different surface; describe magnets as having 2 poles; predict whether 2 magnets will attract or repel each other.** They will **also 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.** **Curriculum Links** **Experiences**	**Plants** **Overview** Children will **explore the requirements of plants for life and growth and how they vary from plant to plant and identify and describe the functions of different parts of the flowering plant.** **Curriculum Links** Geography **Experiences**	**Light** **Overview** Children will **recognise that they need light in order to see things and that dark is the absences of light; notice that light is reflected from surfaces; recognise that shadows are formed when the light from a light source is blocked by an opaque object; and find patterns in the way that the size of shadows change.** **Curriculum Links** Geography **Experiences**
Year 4	**Animals, including humans** **Overview** Children will **describe the simple functions of the basic parts of the digestive system in humans; identify the different types of teeth in humans and their simple functions; and construct and interpret a variety of food chains, identifying producers, predators and prey.** **Curriculum Links** **Experiences**	**Living things and their habitats** **Overview** Children will **recognise that living things can be grouped in a variety of ways; making a guide to local living things; recognise that living things can be grouped in a variety of ways; and explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.** **Curriculum Links** **Experiences**	**Living things and their habitats - conservation** **Overview** Children will **recognise that environments can change and that this can sometimes pose dangers to living things.** **Curriculum Links** **Experiences**	**States of matter** **Overview** Children will **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 °C; and identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.** **Curriculum Links** **Experiences**	**Sound** **Overview** Children will **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 volume of a sound and the strength of the vibrations that produced it; and recognise that sounds get fainter as the distance from the sound source increases.** **Curriculum Links** **Experiences**	**Electricity** **Overview** Children will **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 some common conductors and insulators, and associate metals with being good conductors and recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.** **Curriculum Links** **Experiences**
Year 5	**Forces** **Overview** Children will **explain that unsupported objects fall towards Earth because of the force of gravity; identify the effects of air resistance, water resistance and friction; and recognise that some**	**Properties of materials** **Overview** Children will **compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity, and response to magnets;**	**Changes of materials** **Overview** Children will **describe how to recover a substance from a solution; demonstrate that dissolving, mixing and changes of state are reversible changes and explain that some changes result in the**	**Animals, including humans** **Overview** Children will **describe the changes as humans develop to old age.** **Curriculum Links**	**Earth and Space** **Overview** Children will **describe the Sun, Earth and Moon as approximately spherical bodies; describe the movement of the Earth and other planets relative to the Sun in the solar system and use the idea**	**Living things and their habitats** **Overview** Children will **describe the life process of reproduction in some plants and animals and describe the differences in**

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	mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect. Curriculum Links Experiences	give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, woods and plastics; know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution; and use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Curriculum Links Experiences	formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning or the action of acid on bicarbonate of soda. Curriculum Links Experiences	Experiences	of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. Curriculum Links Experiences	the life cycles of a mammal, an amphibian, an insect and bird. Curriculum Links Experiences
Year 6	**Electricity** Overview Children will use recognised symbols when representing a simple circuit in a diagram; associate the brightness of a bulb or the volume of a buzzer with the number and voltage of cells used in the circuit and compare and give reasons for variations in how components function, including the brightness of the bulbs, the loudness of buzzers and the on/off position of switches. Curriculum Links Experiences	**Light** Overview Children will recognise that light appears to travel in straight lines; explain that objects are seen because they give out or reflect light into the eye; explain that we see things because light travel from light sources to our eyes or from light sources to objects and then to our eyes and use the idea that light travels in straight lives to explain why shadows have the same shape as the objects that cast them. Curriculum Links Experiences	**Animals including humans** Overview Children will identify and name and main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood and describe the way in which nutrients and water are transported within animals, including humans. Curriculum Links Experiences	**Living things and their habitats** Overview Children will give reasons for classifying plants and animals, based on specific characteristics and 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. Curriculum Links Experiences	**Evolution and inheritance** Overview Children will 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 and recognise that living things have changed over time and fossils provide information about living things that inhabited the Earth millions of years ago. Curriculum Links Experiences	**Looking after the environment** Overview Children will record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs; report and present findings from enquiries, including conclusions; and identify scientific evidence that has been used to support or refute ideas or arguments; and using fair test results to make predictions to set up further comparative and fair tests. Curriculum Links Experiences

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Substantive knowledge

	Biology				Chemistry				Physics					
	Plants	Animals, including humans	Living things & habitats	Evolution & Inheritance	Rocks	Everyday materials	Properties & changes of materials	States of matter	Light	Sound	Forces & magnets	Seasonal Changes	Earth and space	Electricity
EYFS	✓	✓	✓			✓		✓	✓	✓	✓			
Year 1	✓	✓				✓						✓		
Year 2	✓	✓	✓			✓								
Year 3	✓	✓			✓				✓		✓			
Year 4		✓	✓					✓		✓				✓
Year 5		✓	✓				✓				✓		✓	
Year 6		✓	✓	✓					✓					✓

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BIOLOGY

EYFS

Animals including humans

Create opportunities to discuss how we care for the natural world around us

All living things and their habitats

- Offer opportunities to sing songs and join in with rhymes and poems about the natural world
- After close observation, draw pictures of the natural world, including animals
- Recognise some environments that are different to the one in which they live
- Name and describe some animals that children are likely to see, encouraging children to recognise familiar animals whilst outside
- Help children to care for animals and take part in first-hand scientific explorations of animal life cycles, such as caterpillars or chick eggs

Plants

- After close observation, draw pictures of the natural world, including plants

Year 1

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 &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 which sense

Plants

- Identify and name a variety of common wild & garden plants, including deciduous and evergreen trees
- Identify and describe the basic structure of a variety of common flowering plants, including trees

Year 2

Animals including humans

- Notice that animals including humans, have offspring which grows into adults
- Find out about and describe the basic needs of animals, including humans, for survival (water, food, air)
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

All 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 for us 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

Year 3

Animals including humans

- Identify that animals, including human, 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 animals have skeletons and muscles for support, protection and movement

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, &room to grow) & 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 a flowering plant, including pollination, seed formation and seed dispersal

Year 4

Animals including humans

- Construct and interpret a variety of food chains, identifying producers, predators and prey
- Describe the simple functions of the basic parts of the digestive system in humans
- Identify the different types of teeth in humans and their simple functions

All living things and their habitats

- Recognise that living things can be grouped in a variety of ways
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- Recognise that environments can change and that this can sometimes pose dangers to living things

Year 5

Animals including humans

- Describe the changes as humans develop from birth to old age

All 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

Year 6

Animals including humans

- Describe the ways in which nutrients and water are transported within animals, including humans.

Inheritance and evolution:

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago.
- 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 functions

Inheritance and evolution:

Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

All living things and their habitats

- Describe how living things are classified into broad groups according to common observable characteristics and

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	• Name and describe some plants children are likely to see, encouraging children to recognise familiar plants whilst outside • Understand the key features of the life cycle of a plant eg. plant seeds and bulbs so children observe growth and decay over time		• Describe how animals obtain their food from plants and other animals, use the idea of a simple food chain, and identify and name different sources of food **Plants** • Observe and describe how seeds and bulbs grow into mature plants • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy				based on similarities and differences, including micro- organisms, plants and animals • Give reasons for classifying plants and animals based on specific characteristics Inheritance and evolution: Identify how animals and plants are adapted to suit their environment in different ways, and that adaption may lead to evolution

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	CHEMISTRY					
	EYFS	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
	States of Matter • Observe and interact with natural processes, such as ice melting	**Everyday Materials/ Properties of 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.	**Everyday Materials/ Properties of 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 • Become familiar with properties such as hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent	**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	**States of Matter** • Compare and group materials together, according to whether they are solids, liquids or gases • Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	**Everyday Materials/ Properties of materials** • Compare and group together materials on the basis of their properties, including; their hardness, solubility, transparency, conductivity (electrical and thermal) • 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

Science Curriculum Progression

PHYSICS

EYFS

Seasonal changes

- Observe and understand the effect of changing seasons on the natural world around them

Light

- Observe and interact with natural processes, such as light travelling through transparent material, an object casting a shadow

Forces and Magnets

- Observe and interact with natural processes, such as a magnet attracting an object and a boat floating on water

Sound

- Observe and interact with natural processes, such as, a sound causing a vibration

Year 1

Seasonal changes

- Observe changes across the four seasons
- Observe and describe weather associated with the seasons and how day length varies

Year 3

Light

- Recognise that they need light in order to see things and that darkness 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 change

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
- Observe how magnets attract some materials and not others
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.
- Describe magnets as having two poles
- Predict whether two magnets++ will attract or repeal each other

Year 4

Sound

- Identify how sounds are made, associating some of them with 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 increases

Electricity

- Identify common appliances that run on electricity
- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
- Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
- Recognise some common conductors and insulators, and associate metals with being good conductors

Year 5

Forces and Magnets

- 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 greater effect

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

Year 6

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

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Disciplinary knowledge

	WORKING SCIENTIFICALLY						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Asking simple questions and recognise that they can be answered in different ways		Plants Animals including humans 2	Living things and their habitats 1 Living things and their habitats 2 Animals including humans 2 Plants				
Observe closely, using simple equipment		Plants Animals including humans 2	Living things and their habitats 1 Plants				
Perform simple tests		Seasonal Changes Animals including humans 1 Everyday materials 1 Everyday materials 2	Uses of everyday materials Animals including humans 1 Plants				
Identify and classify		Seasonal Changes Animals including humans 1 Everyday materials 1 Everyday materials 2 Plants Animals including humans 2	Living things and their habitats 1 Living things and their habitats 2 Animals including humans 1 Animals including humans 2 Plants				
Using their observations and ideas to suggest answers to questions		Seasonal Changes Animals including humans 1 Everyday materials 1 Everyday materials 2 Plants Animals including humans 2	Uses of everyday materials Living things and their habitats 1 Living things and their habitats 2 Animals including humans 1 Animals including humans 2 Plants				
Gather and record data to help in answering questions		Seasonal Changes Animals including humans 1 Everyday materials 1 Plants Animals including humans 2	Uses of everyday materials Living things and their habitats 1 Living things and their habitats 2 Animals including humans 2 Plants				
Ask relevant questions and using different types of scientific enquiries to answer them				Scientific enquiry Plants	Electricity		

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Set up simple practical enquiries, comparative and fair tests				Scientific enquiry Forces and magnets Plants	Animals including humans Sound Electricity		
Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers				Scientific enquiry Rocks Forces and magnets Plants	Animals including humans Living things and their habitats 2 States of matter Sound Electricity		
Gather, record, classify and present data in a variety of ways to help in answering questions				Scientific enquiry Animals including humans Plants Light	Living things and their habitats 1 Living things and their habitats 2 States of matter Electricity		
Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables				Scientific enquiry Animals including humans Forces and magnets Plants Light	Animals including humans Living things and their habitats 2 States of matter Sound		
Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions				Scientific enquiry Animals including humans Rocks Forces and magnets Plants Light	Animals including humans Living things and their habitats 1 Living things and their habitats 2 Sound Electricity		
Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions				Scientific enquiry Rocks Plants	Animals including humans States of matter		
Identify differences, similarities or changes related to simple scientific ideas and processes				Scientific enquiry Animals including humans Rocks Light	Living things and their habitats 1 Sound		
Use straightforward scientific evidence to answer questions or to support their findings				Scientific enquiry Animals including humans	Living things and their habitats 2 States of matter Electricity		
Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary						Forces Properties of Materials Changes of materials Living things and their habitats	Electricity Light Animals including humans Living things and their habitats
Take measurements, using a range of scientific equipment,						Forces Properties of Materials	Electricity Animals including humans

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with increasing accuracy and precision, taking repeat readings when appropriate						Animals including humans Earth and space	Living things and their habitats
Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs						Properties of Materials Animals including humans	Electricity Light Animals including humans Living things and their habitats Looking after the environment
Use test results to make predictions to set up further comparative and fair tests						Properties of Materials Changes of materials Earth and space	Electricity Looking after the environment
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						Forces Properties of Materials Changes of materials Animals including humans Earth and space Living things and their habitats	Electricity Light Animals including humans Living things and their habitats Evolution and inheritance Looking after the environment
Identify scientific evidence that has been used to support or refute ideas or arguments						Forces Changes of materials Animals including humans Earth and space Living things and their habitats	Light Animals including humans Living things and their habitats Evolution and inheritance Looking after the environment