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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Human body		Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	Notice that animals, including humans, have offspring which grow into adults. Know key facts about puberty and the changing adolescent body, particularly from age 9 through to age 11, including physical and emotional changes.	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.	Describe the life process of reproduction in some plants and animals.	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Staying Safe	Explain the reasons for rules, know right from wrong and try to behave accordingly.	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics. Know about safe and unsafe exposure to the sun, and how to reduce the risk of sun damage, including skin cancer.	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).	Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Know about safe and unsafe exposure to the sun, and how to reduce the risk of sun damage, including skin cancer.	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Healthy lifestyle	Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.	Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future. Know about personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing.	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. Know the risks associated with an inactive lifestyle (including obesity). Know what constitutes a healthy diet (including understanding calories and other nutritional content). Know the characteristics of a poor diet and risks associated with unhealthy eating (including, for example, obesity and tooth decay) and other	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. Know what constitutes a healthy diet (including understanding calories and other nutritional content). diet.	Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future. Know the characteristics of a poor diet and risks associated with unhealthy eating (including, for example, obesity and tooth decay) and other behaviours (e.g. the impact of alcohol on diet or health). Know about dental health and the benefits of good oral hygiene and dental flossing, including	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics. Know about personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing. Know key facts about puberty and the changing adolescent body, particularly from age 9 through to age 11, including physical and emotional changes.	Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Know the benefits of physical exercise, time outdoors, community participation, voluntary and service-based activity on mental wellbeing and happiness. Know the risks associated with an inactive lifestyle (including obesity). Know what constitutes a healthy diet (including understanding calories and other nutritional content).

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			behaviours (e.g. the impact of alcohol on diet or health). Know the importance of sufficient good quality sleep for good health and that a lack of sleep can affect weight, mood and ability to learn. Know about dental health and the benefits of good oral hygiene and dental flossing, including regular check ups at the dentist. Know about personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing.		regular check ups at the dentist.		Know the characteristics of a poor diet and risks associated with unhealthy eating (including, for example, obesity and tooth decay) and other behaviours (e.g. the impact of alcohol on diet or health). Know the facts about legal and illegal harmful substances and associated risks, including smoking, alcohol use and drug taking.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Pattern Seeking	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Observe changes across the four seasons.	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.	Find patterns in the way that the size of shadows change.	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.	Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

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Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Changes		Observe and describe weather associated with the seasons and how day length varies.	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	Describe in simple terms how fossils are formed when things that have lived are trapped within rock.	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).	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.	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

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Earth	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Observe and describe weather associated with the seasons and how day length varies.		Recognise that soils are made from rocks and organic matter.	Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Describe the movement of the Moon relative to the Earth.	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.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Phenomena	Develop scientific knowledge through play activities, sharing stories and non-fiction books and discussion.			Recognise that they need light in order to see things and that dark is the absence of light. 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. Recognise that vibrations from sounds travel through a medium to the ear.	Describe the Sun, Earth and Moon as approximately spherical bodies.	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Forces	Develop scientific knowledge through play activities, sharing stories and non-fiction books and discussion.	Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.	Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.	Notice that some forces need contact between two objects, but magnetic forces can act at a distance.	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.	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Modelling	Develop scientific knowledge through play activities, sharing stories and non-fiction books and discussion.		Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.	Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.	Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. 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 that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	Use recognised symbols when representing a simple circuit in a diagram.

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Report & conclude	Explore the natural world around them, making observations and drawing pictures of animals and plants.	Use their observations and ideas to suggest answers to questions.	Use their observations and ideas to suggest answers to questions.	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Gather & record data	Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.	Gather and record data to help in answering questions.	Gather and record data to help in answering questions.	Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Questioning	Make comments about what they have heard and ask questions to clarify their understanding.	Ask simple questions and recognise that they can be answered in different ways.	Ask simple questions and recognise that they can be answered in different ways.	Ask relevant questions and using different types of scientific enquiries to answer them.	Ask relevant questions and using different types of scientific enquiries to answer them.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement	Make observations about the world around them.	Observe closely, using simple equipment.	Observe closely, using simple equipment.	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Observation	Explore the natural world around them, making observations and drawing pictures of animals and plants.	Identify and classify.	Identify and classify	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Identify differences, similarities or changes related to simple scientific ideas and processes.	Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Identify differences, similarities or changes related to simple scientific ideas and processes.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

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Identification and classification	Explore the natural world around them, making observations and drawing pictures of animals and plants.	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.	Identify and name a variety of plants and animals in their habitats, including microhabitats. Notice that animals, including humans, have offspring which grow into adults.	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.	Describe the life process of reproduction in some plants and animals.	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.

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Properties and uses	Sort and group materials and resources and talk about how they are similar or different.	Describe the simple physical properties of a variety 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.	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Observe how magnets attract or repel each other and attract some materials and not others. Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. .	ecognise some common conductors and insulators, and associate metals with being good conductors.	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.	Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

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Identification and classification	Explore the natural world around them, making observations and drawing pictures of animals and plants.	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.	Identify and name a variety of plants and animals in their habitats, including microhabitats. Notice that animals, including humans, have offspring which grow into adults.	Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.	Describe the life process of reproduction in some plants and animals.	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.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Parts & function	Explore the natural world around them, making observations and drawing pictures of animals and plants.	Identify and describe the basic structure of a variety of common flowering plants, including trees. Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).	Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Investigate the way in which water is transported within plants.	Identify the different types of teeth in humans and their simple functions.	Describe the life process of reproduction in some plants and animals.	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Nutrition	Explore the natural world around them, making observations and drawing pictures of animals and plants.	Identify and name a variety of common animals that are carnivores, herbivores and omnivores.	Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.	Identify 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.	Construct and interpret a variety of food chains, identifying producers, predators and prey.	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.	Describe the ways in which nutrients and water are transported within animals, including humans.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Survival	Develop scientific knowledge through play activities, sharing stories and non-fiction books and discussion.	Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.	Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).	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.		Describe the life process of reproduction in some plants and animals.	Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Habitats	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Use their observations and ideas to suggest answers to questions.	Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.		Recognise that environments can change and that this can sometimes pose dangers to living things.	Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.	Give reasons for classifying plants and animals based on specific characteristics.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Physical things	Sort and group materials and resources and talk about how they are similar or different.	Compare and group together a variety of everyday materials on the basis of their simple physical properties.	Explore and compare the differences between things that are living, dead, and things that have never been alive.	Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.	Identify common appliances that run on electricity.	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.	

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Phenomena	Develop scientific knowledge through play activities, sharing stories and non-fiction books and discussion.			Compare how things move on different surfaces.	Recognise that sounds get fainter as the distance from the sound source increases.	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.	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.

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Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Living things	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.	Observe and describe how seeds and bulbs grow into mature plants.	Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	Recognise that environments can change and that this can sometimes pose dangers to living things.	Describe the changes as humans develop to old age. Know key facts about puberty and the changing adolescent body, particularly from age 9 through to age 11, including physical and emotional changes.	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.