	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	**Animals Including humans** Identify and name common fish, amphibians, reptiles, birds and mammals Identify and name common animals that are carnivores, herbivores and omnivores Describe and compare the structure of common 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 changes** (revisit throughout term for autumn and winter) Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies.		**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. (stem, root, flower, leaves)	**Seasonal changes** 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 e.g. hard, soft, rough Compare and group together a variety of everyday materials on the basis of their **simple physical properties.**	**Seasonal changes** Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies.
	Year 1 ongoing working scientifically skills • Asking simple questions and recognising that they can be answered in different ways • Observing closely, using simple equipment • Performing simple tests • Identifying and classifying • Using their observations and ideas to suggest answers to questions • Gathering and recording data to help in answering questions					

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2	**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. (introduce 5 food groups : **fruit and veg; meat, fish, eggs, beans; oils and spreads; milk and dairy goods; bread, rice, potatoes, pasta)**		**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.	**Plants** Find out and describe how plants need **water, light and a suitable temperature** to grow and stay healthy. Observe and describe how seeds and bulbs grow into mature plants	**Living things and their habitats** Explore and compare the differences 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 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 microhabitats 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.	
	Year 2 ongoing working scientifically skills • Asking simple questions and recognising that they can be answered in different ways • Observing closely, using simple equipment • Performing simple tests • Identifying and classifying • Using their observations and ideas to suggest answers to questions • Gathering and recording data to help in answering questions					

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	**Rocks** compare and group together different kinds of rocks on the basis of their appearance and simple physical properties (e.g. hard, rough) 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		**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 Alongside 5 food groups – identify 7 types of nutrition: **Carbohydrates, protein, fats, vitamins, minerals, water, fibre** Identify that humans and some other animals have skeletons and muscles for support, protection and movement	**Forces** Compare how things move on different surfaces Notice that some forces need contact between two objects, but magnetic forces can act at a distance Observe how magnets attract or repel each other and attract some materials and not others Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials Describe magnets as having two poles Predict whether two magnets will attract or repel each other, depending on which poles are facing.	**Plants** 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 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 Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	**Light** Recognise that they need light in order to see things and that dark is the absence of light Notice that light is reflected from surfaces Recognise that light from the sun can be dangerous and that there are ways to protect their eyes Recognise that shadows are formed when the light from a light source is blocked by an opaque object Find patterns in the way that the size of shadows change.
	Year 3 ongoing working scientifically skills • Asking relevant questions and using different types of scientific enquiries to answer them • Setting up simple practical enquiries, comparative and fair tests • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Identifying differences, similarities or changes related to simple scientific ideas and processes • Using straightforward scientific evidence to answer questions or to support their finding					

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 4	**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 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** 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	**Animals including humans** Describe the simple functions of the basic parts of the digestive system in humans Identify the different types of teeth in humans and their simple functions Construct and interpret a variety of food chains, identifying producers, predators and prey (more in depth than Y2: Living things and their habitats)	**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.	**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 4 ongoing working scientifically skills • Asking relevant questions and using different types of scientific enquiries to answer them • Setting up simple practical enquiries, comparative and fair tests • Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions • Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Identifying differences, similarities or changes related to simple scientific ideas and processes • Using straightforward scientific evidence to answer questions or to support their finding					

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	**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.		**Earth and Space** Describe the movement of the Earth, and other planets, relative to the Sun in the solar system Describe the movement of the Moon relative to the Earth Describe the Sun, Earth and Moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	**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	**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. Describe the life processes of reproduction in some (plants) and animals, including humans Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
	Year 5 ongoing working scientifically skills • Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • Using test results to make predictions to set up further comparative and fair tests • Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations • Identifying scientific evidence that has been used to support or refute ideas or arguments					

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6	**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.	**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 microorganisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics.	**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 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.
	Year 6 ongoing working scientifically skills • Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • Using test results to make predictions to set up further comparative and fair tests • Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations • Identifying scientific evidence that has been used to support or refute ideas or arguments					

	Autumn 1 Wonderful me and colours	Autumn 2 Magic, wizards and witches	Spring 1 Fantasy and Adventure	Spring 2 Fantastic Food	Summer 1 Teddy Bears Picnic	Summer 2 Camping
Nursery	• Explore natural materials, indoors and outside. Look at the leaves as they change colour. What flowers do they see? • Explore and respond to different natural experiences in their setting.. Talk about Autumn and leaves changing colour. Colour mixing Painting with berries. Observe natural objects, pine cones leaves bark • Explore light and dark using torches and cardboard boxes. Invite children to investigate and talk about how to make the torches work and things that can be seen in the dark or at night time. Provide a range of reflective materials for children to explore with torches. Include safety reflectors and reflective clothing. Invite children to explore how to make the materials reflect light using the torches • Painting on wet and dry paper. Exploring food colouring on wet paper. • Use all their senses in hands-on exploration of natural materials. Collect sticks or leaves to bring inside and let the child engage in open-ended play.		• Plant seeds and care for growing plants. Plant grass seeds and talk about the changes you see daily as the grass grows. • Understand the key features of the life cycle of a plant and an animal. Focus on the life cycle of a butterfly (egg→ caterpillar → chrysalis→ butterfly) • Talk about what they see, using a wide vocabulary. • Begin to understand the need to respect and care for the natural environment and all living things. How should we treat living things? Should we pick the flowers that are growing in the park? • Explore the natural world around them. • Describe what they see, hear and feel whilst outside.		• Use all their senses in hands-on exploration of natural materials. pebbles/shells • Talk about what they see, using a wide vocabulary. • Explore collections of materials with similar and/or different properties. • Talk about the differences between materials and changes they notice • . • Begin to understand the need to respect and care for the natural environment and all living things. How should we treat living things? Should we pick the flowers that are growing in the park? • Explore how things work. cogs , pulleys switches Explore and talk about different forces they can feel. pushing a boat down in the water. Fishing poles made with wooden dowels, magnets, and plastic string (along with foam fish with magnets on them). • Building campfires. collecting twigs branches. • Painting with marshmallows. • Following animal tracks • Minibeast hunt. • Explore the natural world around them.	

	Autumn 1 All about me	Autumn 2 Terrific tales	Spring 1 Amazing Animals	Spring 2 Come Outside	Summer 1 Ticket to Ride	Summer 2 Fun at the Seaside
Rec			What can we do here to take care of animals in the jungle? Compare animals from a jungle to those on a farm Explore a range of jungle animals. Learn their names and label their body parts. Nocturnal animals. Making sense of different environments and habitats. Use images, video clips, shared texts and other resources to bring the wide world into the classroom. Listen to what children say about what they see Listen to children describing and commenting on things they have seen whilst outside =, including animals and plants	Trip to our local park (to link with seasons). Discuss what we will see on our journey to the park and how we will get there. Introduce children to recycling and how it can take care of our world. Look at what rubbish can do to our environment and animals Create opportunities to discuss how we care for the natural world around us. Can children make comments on the weather, culture, clothing, housing. Change in living things – changes in leaves, weather, seasons. Explore the world around us and see how it changes as we enter summer Provide opportunities for children to note and record the weather Building a bug hotel Draw children's attention to the immediate environment, introducing and modelling new vocabulary where appropriate. Encourage interactions with the outdoors to foster curiosity and give children freedom to touch, smell and hear the natural world around them during hands on experiences. Look for children incorporating their understanding of the seasons and weather in their play		To understand where dinosaurs are now and begin to understand that they were alive a very long time ago Learn what a palaeontologist is and how they explore really old artefacts. Materials: Floating/sinking – boat building Metallic/non-metallic objects