

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Animals (vertebrates) Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals	Human body and the senses Identify, name, draw and label basic parts of the human body and say which part of the body is associated with each sense	Naming and describing 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	Properties and uses of materials Distinguish between an object and the material from which it is made Describe simple physical properties of everyday materials Compare and group together a variety of everyday materials based on their simple physical properties	Identifying plants and their parts 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 <i>*This is animals again on the planning?</i>	Sustainability project – The minibeast hotel Design and build a minibeast hotel for insects in the school garden.
Year 2	Growing up (animals and 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, air)	Choosing 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.	Changing materials Find out about how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	Local 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 the basic needs of different kind 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.	Growing seeds and bulbs Observe and describe how seed and bulbs grow into mature plants. Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Sustainability project - Growing healthy plants Pupils design and carry out an investigation to find out the best sustainable way to grow a healthy plant.

Year 3	Movement and nutrition Studying the human skeleton, children identify key bones and compare them to other animals explaining the role within the body. Pupils explore how changes in muscles result in movement and the implications these discoveries have in the scientific development of prosthetic limbs. They study how energy is used by the body, what constitutes a balanced diet in humans and how research contributes to nutritionist expertise.	Forces and magnets Investigating the movement of vehicles on different surfaces, children learn about the impact of friction and compare uses and drawbacks. They broaden their experience in writing scientific methods and recording data as they investigate contact and non-contact forces. Pupils explore the properties of different magnets and use this to understand their uses.	Rocks and soil Studying rocks and their properties, children learn how to classify rocks and identify how they were formed. They look at the work of paleontologists to learn about fossil formation and use models to explore how fossils tell us about the past. Pupils investigate the physical properties of rocks and link these to their particular uses. Pupils also explore soil formation, separate soil using a sedimentation jar and test soil drainage.	Light and shadows Identifying examples of light sources, children learn that light is needed to see and how its absence causes darkness. Children investigate reflection and shadow formation, including how different factors affect shadows. They explore how shadows can be used to entertain in the arts and create shadow puppets to recount how different people work or experiment with light.	Plant reproduction Building on their prior knowledge of plant structures, children describe the functions of named parts and use evidence to explain their significance in plant development. They investigate factors that may affect plant growth and how water is transported. They explore how seeds vary and create models to show seed dispersal methods.	Sustainability Project – How can we use natural materials to clean and reuse water? Working to design and build a simple water filter using gravel, sand, and cotton. Pupils will test how effective different materials are in cleaning muddy water.
Year 4	Digestion and food Using models, children describe the function of key organs in the digestive system. Pupils identify the types of human teeth to create their own model and investigate factors that impact our dental health. They compare human teeth to other animals' and consider this in the light of prior knowledge about predators, prey and food	Electricity and circuits Exploring appliances that use electricity in their setting, children learn how to work with electricity safely and build circuits. Pupils investigate electrical conductors and insulators and explore the relationship between the number of bulbs and bulb brightness. Real scenarios and historical discoveries inform children about scientific	States of matter Investigating the properties of solids, liquids and gases, children learn about the different states of matter. They explore changes of state using relatable examples and use this to explain changes to water through the water cycle. Pupils investigate the relationship between temperature and rate of evaporation while broadening	Sound and vibrations Exploring different ways of producing sounds, children learn about the relationship between vibrations and what they hear. They study dolphins and whales to develop their understanding of how sound travels between objects and investigate the role of insulation to protect our ears. Pupils explore how pitch and volume can be altered and make their own musical	Classification and changing habitats Identifying different ways to group living things, children make classification keys to explore which grouping methods are most effective. Pupils study how habitats change over time and understand that humans can have both positive and negative effects on their surroundings. They play the role of conservationists and	Sustainability project – The plastic Free lunchbox Pupils test a range of materials (foil, paper, fabric, biodegradable plastics) to see which are best for packaging food. They evaluate for strength, waterproofing, and reusability.

	chains. Children take on the role of a naturalist investigating animal faeces for clues about diet, digestion and dentition.	progression and home safety.	their experience of working scientifically.	instruments to demonstrate these principles.	design conservation pamphlets.	
Year 5	Mixtures and separation Pupils explore different types of mixtures and the different methods that can be used to separate them. They dissolve a range of substances, identify different solutions and investigate how temperature affects the time taken to dissolve. They design and create a water filter, sieve soil and evaporate solutions.	Properties and changes Broadening their experience of the properties of materials, children investigate hardness, transparency and conductivity and consider how these properties influence the uses of materials. They explore reversible changes, including dissolving and changes of state. Children compare these to irreversible changes, including rusting, burning and mixing vinegar and bicarbonate of soda.	Earth and space Exploring some of the key celestial bodies in our Solar System, children learn their names and compare their movements. Pupils discover the relationship between the Earth's rotation and daylight, making models to represent their knowledge. They make their own sundials and consider how and why humans' ideas about the universe have changed over time.	Life cycles and reproduction Studying animal life cycles, children learn about the significance of reproduction for a species' survival. Pupils compare asexual and sexual reproduction in plants and grow cuttings to measure and plot root growth over time. Children compare the life cycles of mammals, birds, amphibians and insects identifying key differences. They analyse secondary data to investigate how the amphibian life cycle is affected by predators and climate change.	Unbalanced forces Building on their knowledge of forces, children explore gravity, air resistance and water resistance in more depth and consider the effect of these forces being unbalanced. They demonstrate key principles in the classroom and plan investigations to further their understanding of the effects of these forces. Pupils test their ideas using models and compete to build the most effective pulley system.	Sustainability project – How can we reduce energy use in our school? Pupils audit their school building: Test different materials as insulators (wrapping beakers of hot water, measuring cooling rates) Observe areas of heat loss or wasted energy (doors left open, lights on unnecessarily) Present findings and recommendations to reduce energy use.
Year 6	Classifying big and small Children broaden their knowledge of how vertebrates, invertebrates, plants and micro-organisms are grouped using shared characteristics. They discover how Carl Linnaeus developed the	Light and reflection Proving that light travels in a straight line, children use this information to explain observations of reflection and shadows. They explore how our eyes allow us to see and how mirrors can be used in a variety of ways. Pupils investigate factors	Evolution and inheritance Studying patterns in humans and other species, children learn about characteristics that are inherited from parents and those that are environmental. Through the eyes of Darwin and Wallace, they learn how	Circuits, batteries and switches Using their prior knowledge of electrical circuits, children learn to draw conventional circuit diagrams and use models to explain current, resistance and voltage. They compare different batteries and	Circulation and health Studying the human circulatory system, children learn about the role of the heart, blood and blood vessels and use models to demonstrate their function. They explore how lifestyle choices affect	Sustainability project - The Sustainable Cities Challenge In groups, pupils design a model of a “sustainable city block.” It must include: Renewable energy sources (mini solar panel circuits or windmill models)

	Linnaean and binomial systems for classifying and naming living things. Pupils use and produce classification keys to sort and identify organisms.	affecting the size of shadows and the laws of reflection. Children apply what they have learned about light by exploring real-life uses of mirrors.	observations lead to theories and explore natural selection. By modelling the variation and natural selection of Darwin's finches, they begin to explain how species evolve over time and the role of fossil evidence that supports this theory.	consider the effect on bulb brightness. Pupils apply their knowledge of switches and electrical circuits to design and produce their own practical devices.	our health and use secondary sources to help them play the role of healthcare professionals advising patients. Pupils devise their own investigation to look at the relationship between exercise and heart rate, applying their knowledge of variables and then analysing secondary data to understand fitness better.	Green areas that encourage biodiversity (plants, insect habitats) Considerations for waste reduction and clean water use
--	---	--	---	--	--	--