

Topic	Science Objectives matched to each topic/year group					
Y1 Seasonal changes	observe changes across the four seasons	observe and describe weather associated with the seasons and how day length varies				
Y1 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				
Y1 Everyday materials	distinguish between an object and the material from which it is made	identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock	describe the simple physical properties of a variety of everyday materials	compare and group together a variety of everyday materials on the basis of their simple physical properties		
Y1 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				
Y2 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			

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Y2 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				
Y2 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				
Y2 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 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		
Y3 Forces and Magnets	Compare how things move on different surfaces	Notice that some forces need contact between two objects, but magnetic forces can act at a distance	Observe how magnets attract or repel each other and attract some materials and not others	Compare and group together a variety of everyday materials on the basis 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

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Y3 Plants	identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers	explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant	investigate the way in which water is transported within plants	explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal		
Y3 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			
Y3 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	
Y3 Animals, including humans	identify that animals including humans, need the right types and amount of nutrition and that they cannot make their own food; they get nutrition from what they eat	identify that humans and some other animals have skeletons and muscles for support, protection and movement				

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Y4 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			
Y4 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	
Y4 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			
Y4 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			

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Y4 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 increases	
Y5 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		
Y5 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			
Y5 Properties and changes of material	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

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Y5 Animals, including humans	describe the changes as humans develop to old age					
Y5 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				
Y6 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			
Y6 Living things and their habitats	describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals	give reasons for classifying plants and animals based on specific characteristics				

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Y6 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			
Y6 Evolution and Inheritance	recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution			
Y6 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		

Red objectives link to the interim framework (although this might change this academic year as it was only up until 2016/17 academic year)