Science Phase Overview
LKS2 - 2 Year Cycle

By the end of LKS2

Plants	Animals including humans	Living things and habitats	Rocks	States of Matter	Light	Sound	Forces and Magnets	Electricity
P1: I can identify and describe the functions of different parts of flowering plants: roots,stem,trunk, leaves and flowers.	**A1:** I can 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.	**LH1:** I can recognise that living things can be grouped in a variety of ways.	**R1:** I can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.	**SM1:** I can compare and group materials together, according to whether they are solids, liquids or gases.	**L1:** I can recognise that they need light in order to see things and that dark is the absence of light.	**S1:** I can identify how sounds are made, associating some of them with something vibrating.	**F1:** I can compare how things move on different surfaces.	**E1:** I can identify common appliances that run on electricity.
P2: I can 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.	**A2:** I can identify that humans and some other animals have skeletons and muscles for support, protection and movement.	**LH2:** I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.	**R2:** I can describe in simple terms how fossils are formed when things that have lived are trapped within rock.	**SM2:** I can 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)	**L2:** I can notice that light is reflected from surfaces.	**S2:** I can recognise that vibrations from sounds travel through a medium to the ear.	**F2:** I can notice that some forces need contact between 2 objects, but magnetic forces can act at a distance.	**E2:** I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
P3: I can investigate the way in which water is	**A3:** I can describe the simple functions of the basic	**LH3:** I can recognise that environments can change and	**R3:** I can recognise that soils are made	**SM3:** I can identify the part played by evaporation and	**L3:** I can recognise that light from the sun can be	**S3:** I can find patterns between the pitch of a sound	**F3:** I can observe how magnets attract or repel each	**E3:** I can identify whether or not a lamp will light in a simple series

transported within plants.	parts of the digestive system in humans.	that this can sometimes pose dangers to living things.	from rocks and organic matter.	condensation in the water cycle and associate the rate of evaporation with temperature.	dangerous and that there are ways to protect their eyes.	and features of the object that produced it.	other and attract some materials and not others.	circuit, based on whether or not the lamp is part of a complete loop with a battery.
P4: I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal	**A4:** I can identify the different types of teeth in humans and their simple functions.				**L4:** I can recognise that shadows are formed when the light from a light source is blocked by an opaque object.	**S4:** I can find patterns between the volume of a sound and the strength of the vibrations that produced it.	**F4:** I can 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.	**E4:** I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.
	A5: I can construct and interpret a variety of food chains, identifying producers, predators and prey.				**L5:** I can find patterns in the way that the size of shadows change.	**S5:** I can recognise that sounds get fainter as the distance from the sound source increases.	**F5:** I can describe magnets as having 2 poles.	**E5:** I can recognise some common conductors and insulators, and associate metals with being good conductors.
							F6: I can predict whether 2 magnets will attract or repel each other, depending on which poles are facing.	

Cycle A

Autumn		Spring		Summer	
Animals including Humans	Rocks	Living things and habitats	Plants	Plants	Light
A1, A2	R1, R2, R3	LH1, LH2, LH3	P1, P2	P3, P4	L1, L2, L3, L4
Subject Specific Vocabulary					
nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, joints, support, protect, move, skull, ribs, spine	rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorbs water, fossil, bone, flesh, minerals, marble, chalk, granite, sandstone, slate, types of soil (e.g. peaty, sandy, chalky, clay)	classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate	photosynthesis, pollen, insect/wind pollination, male, female, seed formation, seed dispersal (wind dispersal, animal dispersal, water dispersal), air, nutrients, minerals, soil, absorb, transport	photosynthesis, pollen, insect/wind pollination, male, female, seed formation, seed dispersal (wind dispersal, animal dispersal, water dispersal), air, nutrients, minerals, soil, absorb, transport	light, light source, dark, absence of light, surface, shadow, reflect, mirror, Sun, sunlight, dangerous
I will…					
• know about the importance of a nutritious, balanced diet • know how nutrients, water and oxygen are transported within animals and humans • know about the skeletal and muscular system of a human • Know the names of some the common joints in our bodies	• Compare and group rocks based on their appearance and physical properties, giving a reason • Know how fossils are formed • Know how soil is made • Know about and explain the difference between sedimentary, metamorphic and igneous rock		• Know the function of different parts of flowing plants and trees • Know the function of flowers in a flowering plant • Know what helps a plant grow • Know how water is transported in a plant • Know what pollination is • Know about seed dispersal	• Know the function of different parts of flowing plants and trees • Know the function of flowers in a flowering plant • Know what helps a plant grow • Know how water is transported in a plant • Know what pollination is • Know about seed dispersal	• know what dark is (the absence of light) • know that light is needed in order to see • know that light is reflected from a surface • know and demonstrate how a shadow is formed • explore shadow size and explain the changes • know the danger of direct sunlight and describe how to keep protected

Cycle B

Autumn		Spring		Summer	
Animals including Humans	Animals including Humans	Sound	States of Matter	Electricity	Forces and Magnets
A3, A4, A5	A3, A4, A5	S1, S2, S3, S4, S5	SM1, SM2, SM3	E1, E2, E3, E4, E5	F1, F2, F3, F4, F5, F6
Subject Specific Vocabulary					
digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, large intestine, rectum, anus, incisor, canine, molar, premolar, herbivore, carnivore, omnivore, producer, predator, prey	digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, large intestine, rectum, anus, incisor, canine, molar, premolar, herbivore, carnivore, omnivore, producer, predator, prey	sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, quiet, loud, insulation	solid, liquid, gas, heating, cooling, state change, melting, freezing, melting point, boiling, boiling point, evaporation, condensation, temperature, water cycle	electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol	force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole
I will…					
• identify and name the parts of the human digestive system • know the functions of the organs in the human digestive system • identify and know the different types of teeth in humans • know the functions of different human teeth	• identify and name the parts of the human digestive system • know the functions of the organs in the human digestive system • identify and know the different types of teeth in humans • know the functions of different human teeth	• know how sound is made • know how sound travels from a source to our ears • know how sounds are made, associating some of them with vibrating • know the correlation between pitch and the features of the object producing a sound	• Know how the same materials can change in state • Know the temperate water boils and freezes • Know which materials, other than water, change state • Know the difference	• Identify and name appliances that require electricity to function • Construct a series circuit • Identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers)	• Know about and describe how objects move on different surfaces • Know how a simple pulley works and used to lift an object • Know how some forces require contact and some do not, giving examples

• use food chains to identify producers, predators and prey • construct food chains to identify producers, predators and prey	• use food chains to identify producers, predators and prey • construct food chains to identify producers, predators and prey	• know the correlation between the volume of a sound and the strength of the vibrations that produced it • know what happens to a sound as it travels away from its source	between solids, liquids and gas • Know the terms condensation and evaporation and know what they mean	• Know the function of a switch • Know the difference between a conductor and an insulator; giving examples of each	• Know about and explain how magnets attract and repel • Predict whether magnets will attract or repel and give a reason