

Science Y1	<u>Biology- Animals including humans</u>  Key Learning: •Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Key vocabulary: Senses, sight, hearing, touch, taste, smell, nose, ears, eyes, mouth, tongue, bitter, sweet, body parts	<u>Physics - Seasonal Changes</u>  Key Learning: •Observe changes across the 4 seasons. •Observe and describe weather associated with the seasons. •Describe how day length varies. Key vocabulary: Spring, Summer, Autumn, Winter, season, weather, daylight, night, months of the year	<u>Chemistry – Everyday Materials</u>  Key Learning: •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. Key vocabulary: Object, material, hard, soft, stretchy, shiny,	<u>Chemistry – Everyday Materials</u>  Key Learning: •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.	<u>Biology- Animals including humans</u>  Key Learning: •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. •Describe and compare the structure of a	<u>Biology- Plants</u>  Key Learning: •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. Key vocabulary:
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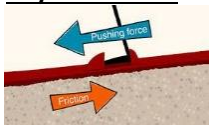
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			dull, rough, smooth, bendy, waterproof, absorbent, transparent, opaque	Key vocabulary: Object, material, hard, soft, stretchy, shiny, dull, rough, smooth, bendy, waterproof, absorbent, transparent, opaque	variety of common animals (fish, amphibians, reptiles, birds and mammals including pets). Key vocabulary: Amphibians, bird, fish, mammals, carnivores, herbivores, omnivores, reptiles,	Wild plants, garden plants, weeds, deciduous, evergreen, seed, leaves, trees
Science Y2	<u>Biology - Living things and their habitats</u>  Key Learning:	<u>Biology - Animals including humans</u>  Key Learning: • Notice that animals, including humans,	<u>Chemistry - Materials (linked to Physics-Space)</u>  Key Learning: • Identify and compare the suitability of a variety of everyday	<u>Chemistry - Materials</u>  Key learning: • Find out how the shapes of solid objects made from some materials can be changed by	<u>Biology - Plants/living things</u>  Key learning: • Observe and describe how seeds and bulbs	<u>Working Scientifically investigations</u> A range of one off investigations to practise their working scientifically skills.

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	• Explore and compare the differences between 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 their 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 Key vocabulary: Life processes, living, dead, never living, habitat, microhabitat, depend, survive <u>Bringing Learning Alive</u>	have offspring which grow into adults. • Describe the importance for humans of exercise. • Describe the importance of eating the right amount of food. Healthy eating and balanced lunchbox. • Describe the importance of hygiene. Key vocabulary: Adult, develop, life-cycle, offspring, young, live young, diet, exercise, germs, diet, nutrition <u>Biology - Animals including humans</u> 	materials including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Key vocabulary: Materials, properties, suitability, purpose, star, planet names, moon orbit, sun, rotate, astronaut <u>Bringing Learning Alive</u>  Space Camp and astronomy evening	squashing, bending, twisting and stretching. Key vocabulary: Flexibility, stretchy, waterproof, rough, smooth, transparent, Lightweight, strong, soft, hard	grow into mature plants. • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Key vocabulary: Germination, shoot, seed dispersal, sunlight, water, temperature, nutrition	
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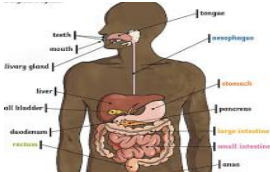
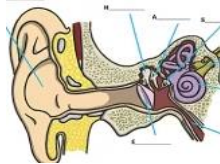
		Key learning: • Find out about and describe the basic needs of animals, including humans, for survival. • Describe how animals obtain their food from plants and other animals using the idea of a simple food chain. • Identify and name different sources of food. Key vocabulary: Survival, air, water, food, food chain, nutrition, life-cycle				
Science Y3	Physics - Forces and Magnets 	Biology - Animals and Humans  exoskeleton - a skeleton on the outside of the body that supports and protects it hydrostatic skeleton - a skeleton made up of a fluid-filled compartment in the body called a coelom, mainly found in soft-bodied animals	Chemistry - Rocks and Fossils 	Physics - Light 	Biology - Plants 	Physics - Forces  Key Learning:

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	Key Learning: • Identify forces as pushes and pulls. • Feel the pulling force of a magnet. • Sort materials according to whether they are magnetic or not. • Participate in an investigation into magnet strength. • Identify the different poles of a bar magnet. • Use a magnetic compass with four points. Key vocabulary: Force, push, pull, magnetic, gravity, compass, north, south, pole, attract, repel	Key Learning: • 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. Key vocabulary: nutrition, diet, food, protein, salts, carbohydrate, minerals, vitamins, fats, sugars, balanced diet, skeleton, skull, spine, vertebrate, pairs, invertebrate. calcium, muscle, contract, relax	Key Learning: • 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. Key vocabulary: waterproof, strong, hard, opaque, heavy, sedimentary, igneous, soil, metamorphic, porous, fossil, layers, erosion, inner core, outer core, mantle, crust, earthquake,	Key Learning: • 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. Key vocabulary: light, dark, absence, reflection, surface,	Key Learning: • 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	• To notice that some forces need contact between two objects by identifying the different types of forces acting on objects. • Compare how things move on different surfaces. • To know that different surfaces make different amounts of friction. Key vocabulary: Friction, forces, surface, speed, faster, slower, rough, smooth, motion, object
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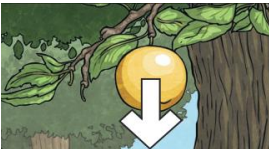
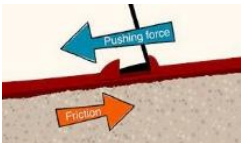
			volcano pebble, boulder, crystal, weathering	natural, man-made, light, source, shadow, blocked, bright, dim, mirror, absorb, plane mirror, concave mirror, convex mirror, image	formation and seed dispersal. Key vocabulary: plant, roots, stem , trunk, food, bud, leaf/leaves, flower, stalk, veins, tip, surface, edge, root hair, nutrients, anchor, support, seed, germination, seedling, growth, mature plant,	
				flowering, pollination, seed formation, petal, pollen, nectar, seed, fruit		

Science Y4	<u>Biology - Living things and their Habitats</u>  Key Learning: ● 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 Key vocabulary: organism, animal, plant, vertebrate, invertebrate, mammal, amphibian, bird,	<u>Biology - Animals including Humans</u>  Key Learning: ● 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. Key vocabulary: digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine,	<u>Physics - Electricity</u>  Key Learning: ● 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	<u>Chemistry - States of Matter</u>  Key Learning: ● 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	<u>Biology - Living things and their Habitats</u>  Key Learning: ● Scientific Enquiry Research: How can environments change, including through human impact? How can we help our habitats? Key vocabulary: habitat, migrate, hibernate, human impact, positive, negative, environment	<u>Physics - Sound</u>  Key Learning: ● Identify how sounds are made, associating some of them with something vibrating. ● Recognise that vibrations from sounds travel through a medium to the ear. Key vocabulary: sound, source, vibrate, vibration, travel medium, solid, liquid, gas, amplitude, volume, loud, quiet, insulation, decibels, frequency, pitch, high, low, hertz
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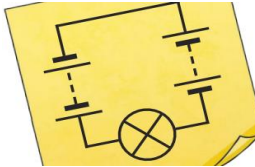
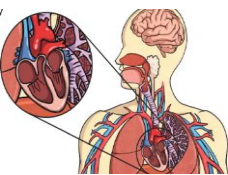
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	insect, fish, environment, habitat, migrate, hibernate, human impact, positive, negative	nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolar, herbivore, carnivore, omnivore producer, predator, prey, food chain	whether or not a lamp lights in a simple series circuit. ● Recognise some common conductors and insulators, and associate metals with being good conductors. Key vocabulary: 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	evaporation with temperature.	BRINGING LEARNING ALIVE 	
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			Key vocabulary: state of matter, solid, liquid, gas, change, melt/melting, freeze/freezing, boiling, evaporate condensate, temperature, heating, cooling, water cycle, evaporation, condensation, precipitation, transpiration			
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Science Y5	<u>Physics- Forces</u>  Key Learning: • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. • Recognise the contribution of Newton's discoveries Identify the effects of air resistance and water resistance.	<u>Physics - Forces</u>  Key Learning: • Identify the effects of friction that act between moving surfaces. • Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect. Key vocabulary: Force, Newton, gravity, friction, surface, material, balanced, gear, lever, pulley, springs	<u>Physics- Earth and Space</u>  Key Learning: • Describe the movement of the Earth in relation to the sun. • Describe the movement of the moon in relation to the Earth. • Use the knowledge of Earth's rotation to explain day and night.	<u>Chemistry - Properties and Changes of Material</u>  Key Learning: • Identify the uses of a material according to its properties. • Explain why materials dissolve in certain conditions. • Identify the most suitable processes to separate different mixtures.	<u>Biology- Living things and their Habitats</u>  Key Learning: • 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. Key vocabulary:	<u>Biology- Animals including humans</u>  Key Learning: • Describe the changes as humans develop to old age. Key vocabulary: Pregnancy, reproduction, infancy, adolescence, life expectancy, prenatal, adulthood
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	Key vocabulary: Force, Newton meter, gravity, air resistance, water resistance, buoyancy, mass resistance, up-thrust, weight		Key vocabulary: gravity, star, planet, hemisphere attract, attraction, weight, moon orbit, revolve, rotation, axis equator <u>Bringing learning Alive</u>  Winchester Science Centre and planetarium	• Identify the new materials made in irreversible changes. • Identify dependent, independent and controlled variables Key vocabulary: Property, soluble, insoluble, solute, solution, solvent conduct, insulate, thermal, magnetic, filter, filtrate, evaporate, gas, solid liquid, distillation, chromatography, state, burning, oxygen, particles	reproduction, fertilise, life cycle, gestation, pollination, metamorphosis <u>Bringing learning Alive</u>  Leeson House	
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Science Y6	<u>Biology - Living Things and their Habitats</u>  Key Learning: •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	<u>Biology - Evolution and Inheritance</u>  Key Learning: •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	<u>Physics - Electricity</u>  Key Learning: •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,	<u>Biology- Animals and Humans</u>  Key learning: •Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Key vocabulary: Circulatory system, Heart, blood vessels, oxygenated blood, deoxygenated blood,	<u>Biology - Animals and Humans</u>  Key learning: •Describe the ways in which nutrients and water are transported within animals, including humans. • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.	<u>Physics - Light</u>  Key Learning: •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
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	specific characteristics.	kind, but normally offspring vary	including the brightness of		Key vocabulary: Lifestyle, exercise,	light sources to our eyes
	Key vocabulary: Characteristics, classify, taxonomist, key, domain, kingdom, Linnaeus	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. Key vocabulary: Inheritance, offspring, variations, characteristics, adaptation, habitat, environment, evolution, natural selection, fossil, adaptive trait, inherited trait	bulbs, the loudness of buzzers and the on/off position of switches. • Use recognised symbols when representing a simple circuit in a diagram. Key vocabulary: Circuit, symbol, cell battery, current, amps, voltage, resistance, electrons, indicator, motor, switch, buzzer		drug, alcohol, nutrients, diet, water, damage, substances, internal organs	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. Key vocabulary: Light source, reflection, incident ray, reflected ray, law of reflection, refraction, visible

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						spectrum, prism, shadow, transparent, translucent, opaque
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