

Science year 1 progression Curriculum

Science milestones								
Topic	1	2	3	4	5	6	7	8
<b>Working Scientifically Skills</b>	<p>Selects objects by their function, property or part</p> <p>Uses a single word, sign, or symbol to name an object</p> <p>Shows some basic awareness of cause-and-effect</p> <p>Helps to carry out simple test</p> <p>Anticipates the end result of an activity, e.g. that some objects will float or sink</p> <p>Notices obvious changes, e.g. leaves changing colour</p> <p>Observes an experiment</p>	<p>Answers a question based on their observations</p> <p>Records their activity and results, e.g. selects the correct picture in a sequence</p> <p>Uses simple measuring equipment with assistance, e.g. thermometer</p> <p>Communicates simple related ideas and observations using simple phrases</p> <p>Indicates that changes have occurred due to their actions</p> <p>Sorts objects by a given criteria when contrasts are obvious</p>	<p>Discusses what they are going to do, including how and why in simple terms</p> <p>Gives a simple explanation why something will and then has happened</p> <p>Labels a simple diagram</p> <p>Contributes to the planning and evaluation of simple comparative tests</p> <p>Considers their own safety during experiments</p> <p>Identifies similarities and differences and can sort objects into groups.</p>	<p>Includes a range of scientific words related to topic</p> <p>Identifies some of the equipment they will need to complete task</p> <p>Observes and makes simple comments about obvious changes over time</p> <p>Communicates about what they think may happen</p> <p>Records ideas using drawing or information and communication technology</p> <p>Can fill in a chart showing results.</p>	<p>Takes simple measurements and records data using simple measurements</p> <p>Extracts basic information from appropriate secondary sources</p> <p>Explains their findings in relation to their experiment or research</p> <p>Records their observations, e.g. drawings, photographs or notes</p> <p>States a simple prediction</p> <p>Carries out simple directed comparative tests with some support</p>	<p>Reaches a simple conclusion</p> <p>Selects and uses equipment they will need to research or investigate,</p> <p>Tests their scientific hypothesis</p> <p>Uses different types of scientific enquiry to gather and record data, using simple equipment where appropriate to answer questions</p> <p>Asks their own questions about what they notice using appropriate scientific language</p>	<p>Suggests a variable that could be tested</p> <p>Collates and organises scientific information</p> <p>Draws simple conclusions based on their findings</p> <p>Interprets and presents discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</p> <p>Classifies using a range of simple methods, e.g. Venn diagram, lists</p>	<p>Describes and evaluates their own and other people's scientific ideas related to topics (including ideas that have changed over time) using evidence from a range of sources</p> <p>Raises further questions that could be investigated, based on their data and observations using appropriate scientific language</p> <p>Creates a simple classification key,</p>
<b>Core Vocab</b>	Look, see, hear,	Sort, what, where, when, group, test	Diagram, why, same, different, safety	Why, how, results, chart, guess, changes, experiment,	Predict, record, observe, measure, compare, similarities and differences	Equipment, research, hypothesis, enquiry, investigate, graph	Classify, venn-diagram, present, data, variable, conclusion, collate	Hypothesis, evaluation, interpret, key, classification

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Topic	1	2	3	4	5	6	7	8
<p><b>Animals including Humans &amp; Evolution &amp; Inheritance</b></p> <p>(Biology)</p>	<p>Can recognise and name common animals</p> <p>Recognises common animal noises</p> <p>Recognising and naming body parts – can point to parts of their body and face features</p> <p>Knows they are a human and their own sex</p> <p>Recognises pictures of themselves at younger age.</p> <p>Recognises a family member in a photograph</p> <p>Recognises dinosaurs in pictures and know that they were real.</p>	<p>Sort animal pictures or toys by one feature</p> <p>Can identify pets, farm animals and the some wild animals and minibeasts</p> <p>Names the main parts of the human body and face</p> <p>Identify their hair and eye colour in a mirror and that of others.</p> <p>States that dinosaurs are no longer alive</p> <p>Knows the following adaptations - that Monkeys have tails to swing through the trees, Giraffes have a long neck to reach leaves.</p> <p>Links photos of animals learnt so far to their offspring.</p>	<p>Name animals that live in water.</p> <p>Name common birds</p> <p>Order 3 stages of chicken and human lifecycle</p> <p>Groups familiar animals based on following features – skin, fur, feathers; two legs, four legs, no legs.</p> <p>Recognises a human, dog and snake skeleton.</p> <p>Name 5 senses and their body parts</p> <p>Know that the dinosaurs lived a long time ago on Earth.</p> <p>Compares obvious characteristics of dinosaurs – big or small, wings or legs.</p> <p>Know that fish have gills to breathe and fins to swim that birds have wings to fly and compare features of beaks</p> <p>Identifies similar features when comparing photos of families.</p> <p>To examine fossils and notice patterns and shapes.</p>	<p>Name reptiles &amp; amphibians and describe their different skin.</p> <p>Can describe simple animal features</p> <p>Know that mammals give birth to live young and all other animals lay eggs.</p> <p>Order the frog life cycle and knows that amphibians go through a transformation</p> <p>Name and sequence 6 stages of human timeline.</p> <p>Compare similarities and differences between relatives.</p> <p>To know that all dinosaurs laid eggs.</p> <p>To know that animals today have evolved from dinosaurs.</p> <p>To match fossils to animals and plants.</p>	<p>Classify animals into the 6 basic animal groups and explain features of each.</p> <p>Compare previous lifecycles including butterfly.</p> <p>Explain the 6 stages of the human lifecycle including growth, development and decline.</p> <p>Knows the functions of bones, muscles blood and teeth and that we eat to get energy.</p> <p>Name some animals that are vertebrates and invertebrates.</p> <p>To know insects have 6 legs, molluscs have none and arachnids have 8.</p> <p>To understand their own simple family tree (including, siblings, parents and grandparents)</p> <p>To recognise, name and label 4 dinosaurs</p> <p>To explain simple adaptations for animals survive (polar bear, camel, penguin)</p> <p>To understand the term extinct and evolve.</p> <p>Knows that a fossil shows the remains of a plant or animal and order the simple formation stages.</p>	<p>Name and label internal parts of the human body.</p> <p>Know that the heart is a muscle that pumps blood around the body.</p> <p>Knows the process of typical digestion from chewing to excretion</p> <p>Knows that teenagers grow more hair, sweat more, emotional changes, voice changes for males and periods for females.</p> <p>Creates a simple three tier family tree (including aunts/uncles and cousins) using given information</p> <p>To know that hibernation is what some animals do in the winter to save energy, keep warm and survive.</p> <p>To know which animals hibernate</p> <p>To know that fossils are formed over millions of years and to describe the formation stages simply.</p>	<p>Describes the main changes at puberty for males &amp; females: breasts grow, hips wider, menstrual cycle and egg release in girls. In boys; sperm production, shoulders broader, muscles grow.</p> <p>Label a diagram of parts of the digestive system in humans</p> <p>Knows that the circulatory system is made up of blood, blood vessels the heart and the heart has four chambers which beats all day and night.</p> <p>To know some features, characteristics and conditions are passed down from parents while others are influenced by environment and conditions.</p> <p>Compare a captive and wild big cat and the change to behaviour and instincts due to captivity</p> <p>To understand the term species.</p> <p>To know that fossils can teach us about extinct animals.</p>	<p>Label diagrams of the reproductive system in males and females.</p> <p>Describes and compares reproductive cycle including newborn phase of humans and Elephant, cat, Kangaroo,</p> <p>Names and describes the functions of the main parts of the circulatory system.</p> <p>Uses the basic ideas of inheritance, variation and adaptation to describe how living things have changed over time and evolved; and provides evidence for evolution</p> <p>Know that evolution happens when animals adapt over generations.</p> <p>Recognises that fossils are a record of evolution.</p> <p>To evaluate why a mammoth became extinct.</p>
<p><b>Core vocab</b></p>	<p>Dog, cat, bird, fish, cow, sheep, pig, horse, chicken, spider. Eyes, ears, nose, mouth, head, arms, legs, body, face. Boy, girl. Human.</p> <p>Me, mum, dad, brother, sister. Dinosaur, real.</p>	<p>Wings, fur, rabbit, guinea pig, goldfish, duck elephant, giraffe, lion, snake, monkey, kangaroo, penguin, polar bear, camel, slug, snail, ladybird, ant, worm, caterpillar, butterfly. Shoulders, knees, feet, toes, elbow, knees, hair, tongue, teeth</p> <p>Brown, blonde, black, ginger, blue, brown, green. Alive.</p>	<p>Shark, whale, dolphin, clownfish, octopus, jellyfish, frog, turtle, crab, starfish Pigeon, parrot, owl, seagull, flamingo. Life cycle, egg, chick, chicken, baby, child, adult. Group. Skeleton, teeth, feathers. Sight, hearing, touch, smell, taste.</p> <p>Earth, wing, fly. Gills, breath, fins, swim. Beak. Family. Fossil, patten.</p>	<p>Frog, toad, salamander, axolotl. Turtle, tortoise, lizard, crocodile. Scales, gills, webbed feet, shell. Mammal, amphibian, transformation, reptile, live young. Tadpole. Froglet, Frog. Moist, dry, scaly. Toddler, teenager, elderly.</p> <p>Relative. Similarities, differences.</p>	<p>Metamorphosis, chrysalis. Growth, development, decline. Bones, muscles, blood. Oxygen, organs, protect, structure, support. Vertebrate, invertebrate. Pterodactyl, brachiosaurus, tyrannosaurus rex, triceratops. Mollusc, insect, arachnid, scorpion Energy.</p> <p>Family Tree. Extinction. Remains. Evolve.</p>	<p>Skull, ribs, heart, brain, lungs, stomach. Circulation, pumps. Digestion, chewing, swallowing, stomach, intestines, absorption, excretion. Grow, sweat, emotional changes, voice, periods, male, female.</p> <p>Hibernation. Survival. Adapt. Hedgehogs, bats, dormice, bears. Formed.</p>	<p>Puberty, breasts, vagina, menstrual cycle, sperm, penis, testicles, vulva. Oesophagus, small and large intestines, bowel, bladder. Blood vessels, chambers. Pregnancy.</p> <p>Environment. Characteristics. Features. Instincts. Species. Behaviour. Generation.</p>	<p>Ovaries, uterus, fallopian tubes, cervix. Urethra, prostate. Gestation, pouch, marsupial, joey, mate, litter. Veins, arteries, capillaries.</p> <p>Inheritance. Variation. Descendent. Adaption. Mammoth. Evidence. Evolution.</p>



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<p><b>Core vocab</b></p>	<p>Light, dark, day, night, on, off, rainbow,</p>	<p>Black, loud, quiet, sun, torch, ceiling light, sensory lights, colours, computer, battery, plug, socket, drum guitar, strings, electricity, shadow, shiny</p>	<p>Sound, colour names, near, far, bigger, smaller, shadow, danger, metal, plastic, wire, heat, movement, size, moon</p>	<p>Volume, travel, source, bulb, wire, fire, stars, mirror, fireflies, candle, screen, switch, power, energy, vibrations,</p>	<p>Reflect, vibrate, transmit, ray, circuit, cell, buzzer, reflect, man-made, natural, corner, angle, longer, shorter, change, protect, fabric, cardboard, plastic, metal,</p>	<p>Pitch, translucent, reflective, opaque, transparent, motor, louder, quieter, safety, motor</p>	<p>Wavelength Straight lines, high vis, glow in the dark, absorb, emit, visible, conductor, insulator, component</p>	<p>Visible, spectrum, prism, pupil, solid, liquid, gas, symbol, diagram</p>
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