



Science - Skills Progression

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Planning, Communication and Sources	See EYFS curriculum document	Draw simple pictures Talk about what they see and do Use simple charts to communicate findings Identify key features Ask questions	Describe their observations using some scientific vocabulary Use a range of simple texts to find information Suggest how to find things out Identify key features Ask questions	Use pictures, writing, diagrams and tables as directed by their teacher Use simple texts, directed by the teacher, to find information Record their observations in written, pictorial and diagrammatic forms select the appropriate format to record their observations	Record observations, comparisons and measurements using tables and bar charts Begin to plot points to form a simple graph Use graphs to point out and interpret patterns in their data Select information from a range of sources provided for them	Record observations systematically Use appropriate scientific language and conventions to communicate quantitative and qualitative data Select a range of appropriate sources of information including books, internet and CD Rom	Choose scales for graphs which show data and features effectively Identify measurements and observations which do not fit into the main pattern Begin to explain anomalous data Use appropriate ways to communicate quantitative data using scientific language

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Enquiring and Testing. Obtaining and presenting evidence	See EYFS curriculum document	Test ideas suggested to them Say what they think will happen Use first hand experiences to answer questions Begin to compare some living things	Use simple equipment provided to aid observation Compare objects, living things or events Make observations relevant to their task Begin to recognise when a test or Comparison is unfair Use first hand experiences to answer questions	Put forward own ideas about how to find the answers to questions Recognise the need to collect data to answer questions Carry out a fair test with support Recognise and explain why it is a fair test With help, pupils begin to realise that scientific ideas are based on evidence	With help, pupils begin to realise that scientific ideas are based on evidence Show in the way they perform their tasks how to vary one factor while keeping others the same Decide on an appropriate approach in their own investigations to answer questions Describe which factors they are varying and which will remain the same and say why.	Use previous knowledge and experience combined with experimental evidence to provide scientific explanations Recognise the key factors to be considered in carrying out a fair test	Describe evidence for a scientific idea Use scientific knowledge to identify an approach for an investigation Explain how the interpretation leads to new ideas

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Observing and Recording	See EYFS curriculum document	Make observations using appropriate senses Record observations Communicate observations orally, in drawing, labelling, simple writing and using ICT	Respond to questions asked by the teacher Ask questions Collect and record data (supported by the teacher) Suggest how they could collect data to answer questions Begin to select equipment from a limited range	Make relevant observations Measure using given equipment Select equipment from a limited range	Carry out measurement accurately Make a series of observations, comparisons and measurements Select and use suitable equipment Make a series of observations and measurements adequate for the task	Make a series of observations, comparisons and measurements with increasing precision Select apparatus for a range of tasks Plan to use apparatus effectively Begin to make repeat observations and measurements systematically	Measure quantities with precision using fine – scale divisions Select and use information effectively Make enough measurements or observations for the required task

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Considering evidence and evaluating	See EYFS curriculum document	Make simple comparisons and groupings Say what has happened Say whether what has happened was what they expected	Say what has happened Say what their observations show and whether it was what they expected Begin to draw simple conclusions and explain what they did Begin to suggest improvements in their work	Begin to offer explanations for what they see and communicate in a scientific way what they have found out Begin to identify patterns in recorded measurements Suggest improvements in their work Evaluate their findings	Predict outcomes using previous experience and knowledge and compare with actual results Begin to relate their conclusions to scientific knowledge and understanding Suggest improvements in their work, giving reasons	Make predictions based on their scientific knowledge and understanding Draw conclusions that are consistent with the evidence Relate evidence to scientific knowledge and understanding Offer simple explanations for any differences in their results Make practical suggestions about how their working methods could be improved	Make reasoned suggestions on how to improve working methods Show how interpretation of evidence leads to new ideas Explain conclusions, showing understanding of scientific ideas

Science Key Knowledge and Vocabulary

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals including humans Fish, Reptiles, Mammals, Birds, Amphibians (+ examples of each) Herbivore, Omnivore, Carnivore, Leg, Arm, Elbow, Head, Ear, Nose, Back, Wings, Beak	Animals including humans Survival, Water, Air, Food, Adult, Baby, Offspring, Kitten, Calf, Puppy, Exercise, Hygiene	Animals including humans Movement, Muscles, Bones, Skull, Nutrition, Skeletons,	Animals including humans Mouth, Tongue, Teeth, Oesophagus, Stomach, Small Intestine, Large Intestine, Herbivore, Carnivore, Canine, Incisor, Molar	Animals including humans Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty	Animals including humans Circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration
Plants Deciduous, Evergreen trees, Leaves, Flowers (blossom), Petals, Fruit, Roots, Bulb, Seed, Trunk, Branches, Stem	Plants Seeds, Bulbs, Water, Light, Temperature, Growth	Plants Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower	Living things and their habitats Vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects, Environment, Habitats	Living things and their habitats Mammal, Reproduction, Insect, Amphibian, Bird, Offspring	Living things and their habitats Classification, Vertebrates, Invertebrates, Micro-organisms, Amphibians, Reptiles, Mammals, Insects
Everyday Materials Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth	Living things and their habitats Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert	Rocks Fossils, Soils, Sandstone, Granite, Marble, Pumice, Crystals, Absorbent	States of Matter Solid, Liquid, Gas, Evaporation, Condensation, Particles, Temperature, Freezing, Heating	Properties and changes of materials Hardness, Solubility, Transparency, Conductivity, Magnetic, Filter, Evaporation, Dissolving, Mixing	Evolution and Inheritance Fossils, Adaptation, Evolution, Characteristics, Reproduction, Genetics
Seasonal Changes Summer, Spring, Autumn, Winter, Sun, Day, Moon, Night, Light, Dark	Everyday materials and their uses Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil	Light Light, Shadows, Mirror, Reflective, Dark, Reflection	Sound Volume, Vibration, Wave, Pitch, Tone, Speaker	Earth and Space Earth, Sun, Moon, Axis, Rotation, Day, Night, Phases of the Moon, star, constellation	Light Refraction, Reflection, Light, Spectrum, Rainbow, Colour,
		Forces and magnets Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull	Electricity Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators	Forces Air resistance, Water resistance, Friction, Gravity, Newton, Gears, Pulleys	Electricity Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators, Amps, Volts, Cell