

Science Terminology

Foundation Stage

Term	Meaning	Example
Scientific fact	Something we know is true because scientists have tested it and found evidence to prove it	
Predict	To have a guess about what you think will happen	
Question	Something you ask because you want to find something out.	
Compare	To look at two things and see how they are the same or different	
Experiment	A test we do to find out what happens	
Seasons	The four parts of the year: spring, summer, autumn and winter.	autumn, winter, spring, summer
Spring	Spring is when the Earth starts to warm up and plants start to grow. In the UK, the spring months are March, April, May.	March, April, May
Summer	Summer is when the sun shines more and for longer. In the UK, the summer months are June, July, August.	June, July, August
Autumn	Autumn is when it starts to get cooler and less sunny. There are gradually less hours of daylight. In the UK, the autumn months are September, October, November.	September, October, November
Winter	Winter is when the days get shorter, and the weather is colder. In the UK, the winter months are December, January, February	December, January, February
Weather	What the air and sky are like outside, such as sunny, rainy, windy or cloudy.	rain, sunshine, snow, wind, fog, hail, tornado, thunder and lightning, frost.

Animal	An animal is a living thing that can move and eat and reacts to the world through its senses.	Whale, fish, cat, dog, snake, cow, sheep, pig, bird, spider
Natural world	The natural world is all of the animals, plants, and other things existing in nature and not made or caused by people.	
Hibernation	A long, deep sleep that some animals have during the winter to save energy	Hedgehogs, tortoise
Float	To float is to rest or move on or near the surface of a liquid without sinking.	Boats
Sink	To sink is to go down below the surface of a liquid and become submerged.	Bricks
Plant	A plant is a living organism typically growing in a permanent site, absorbing water and inorganic substances through its roots, and synthesizing nutrients in its leaves by photosynthesis.	Tree, sunflower, grass, cactus, roses, tulips, hedges
Flower	The seed-bearing part of a plant.	daisy, daffodil
Melt	When something changes from a solid into a liquid because it gets warmer	Ice melting into water
Minibeast	A small animal without a backbone, such as a worm, spider, beetle or butterfly	Spiders, beetles, snails, worms, centipedes, insects, slugs
Life cycle	A lifecycle is the series of stages a living thing passes through from a beginning stage (as an egg) to the same stage in its offspring.	Butterfly: egg, caterpillar, pupa, butterfly. Chicken: egg, hatchling, chick, chicken
Magnet	A magnet is a material or object that produces a magnetic field.	
Magnetic	A material or object able to be attracted by magnets.	Iron, nickel, cobalt
Non-magnetic	A material or object not able to be attracted by magnets (repels the magnet).	Wood, plastic, brick, glass
Shadow	A dark shape made when an object blocks light	

Year 1 and Year 2 – Working Scientifically

Term	Meaning	Example
Fair test	A test where we change one thing and keep everything else the same	
Suitability	How appropriate something is for a particular person, purpose, or situation.	
Table	A way of organising information into rows and columns	
Bar chart	A diagram where the numerical values are represented by the height or length of rectangular bars.	
Observe	Notice or see something, usually a change, which is significant.	
Observation	Something you notice when you look closely at something	
Classify	To put things into groups based on what they are like	
Classification	Putting things into groups based on their similarities	
Investigation	A careful test or activity we do to find something out	
Data	Information we collect during an investigation	
Evaluate	To think about what happened and decide how well something worked or didn't work	

Year 1

Term	Meaning	Example
Waterproof	A material that does not allow water to pass through it.	Metal, glass, plastic.
Material	A material is the matter from which a thing is or can be made.	Wood, plastic, paper, metal, brick, glass, cardboard
Object	A thing that can be seen or touched.	Table, chair, pen, bus, car, house, swing, bench

Physical properties	A characteristic of an object, material or substance that can be observed or measured.	Opaque / transparent, permeable / impermeable, hard / soft, smooth / rough
Properties	The characteristics that give something its appearance and behaviour	
Physical properties	A characteristic of an object, material or substance that can be observed or measured.	
Appearance	The way someone or something looks.	
Absorbent	A material that is able to soak up liquid easily.	Sponge, paper, fabric
Opaque	An object that does not allow light to pass through so cannot be seen through.	Wood, brick, metal
Transparent	An object that allows light to pass through so that objects behind can be seen.	Glass
Senses	The ways we find out about the world using our eyes, ears, nose, tongue and skin	Touch, smell, taste, sight, hearing
Touch	When the skin comes into contact with someone or something.	
Smell	The sense we use to notice different scents with our nose	
Taste	To experience and recognise the flavor by putting into the mouth.	
Sight	The ability to see.	
Hearing	The ability to hear or sense sound.	
Deciduous	A plant that sheds its leaves annually.	Oak trees, maple trees, birch trees.
Evergreen	A plant that keeps green leaves throughout the year.	Pine trees, fir trees, holly
Flowering plant	A plant that produces flowers.	Sunflower, daisy, tulip.
Seed	The part of a flowering plant, capable of growing into another plant.	
Bulb	A plant bud that begins to grow underground.	
Vertebrate	An animal with a backbone.	Mammals, amphibians, reptiles, birds.
Fish	An animal that lives in water and has fins for swimming and gills for breathing.	Sharks, tuna, cod, crabs, stingrays.

Amphibian	A small animal that spends part of its life in water and part of its life on land.	Frogs, toads, salamanders, newts.
Bird	An animal with two wings, two feet, and a body covered with feathers.	Eagles, penguins, owls, parrots, crows, pigeons, magpies.
Reptile	A cold-blooded animal with a skeleton inside its body and dry scales or hard plates on its skin.	Lizards, snakes, iguanas, crocodiles.
Mammal	A warm-blooded animal with fur or hair on its skin and a skeleton inside its body.	Humans, dogs, cats, lions, tigers, giraffes, cows, sheep, whales.
Carnivore	An animal that eats meat from other animals.	Humans, cats, lions, tigers, dogs.
Herbivore	An animal that eats plants.	Deer, pandas, gorillas, giraffes, zebras, elephants.
Omnivore	An animal that eats plants and meat from other animals.	Bears, pigs, badgers, foxes,

Year 2

Term	Meaning	Example
Offspring	An animal's or person's child or children.	
Stages of life	The ages and stages we go through as we learn and grow, from infancy to adulthood.	Embryo, baby, toddler, child, teenager, adult, old age
Oxygen	A gas with no colour or smell. Most living things need oxygen	
Food	Anything that contains nutrients and is eaten by living creatures in order to maintain life, health, and growth.	Apple, beef, cheese, cereal, bread, potatoes, chocolate
Exercise	Activity done to keep the body or mind strong or improve health and fitness.	Running, jumping, skipping, weightlifting
Hygiene	The way we care for our bodies. It includes many activities, such as washing hands, brushing teeth, and bathing.	Washing hands, showering, bathing, brushing teeth, washing hair

Healthy	In a good physical and mental condition, with the absence of disease.	
Diet	The kinds of food that a person, animal or community habitually eats.	
Balanced diet	Eating a wide variety of foods in the right proportions to help us stay healthy.	
Suitability	How appropriate something is for a particular person, purpose, or situation.	
Germination	When a seed starts to grow	
Temperature	The degree or intensity of heat present.	
Habitat	The natural home or environment of an animal, plant or micro-organism.	Desert, meadow, forest, ocean, arctic, woodland, grasslands, mountains.
Micro-habitat	A very small area of a habitat that is different to the immediate surrounding habitat.	Beneath a paving stone, a pond, a rotten tree stump / log.
Environment	The surrounding area and conditions that a person, animal or plant lives or operates.	Desert, meadow, forest, ocean, arctic, woodland, grasslands, mountains.
Food chain	A series of organisms each dependent on the next as a source of food.	Grass – rabbit – fox – bear

Year 3/4

Term	Meaning	Example
Hazard	A danger or risk.	
Precaution	A measure taken in advance to prevent something dangerous, unpleasant, or inconvenient from happening.	
Trend	A general direction in which something is developing or changing.	

Cause and effect	Where one event (the cause) leads to another event or outcome (the effect).	
Classification key	A set of questions about the physical characteristics of an organism (living thing) which is used to classify it.	
Comparative test	A test that requires you to test and compare different materials or objects.	
Diagram	A simplified, labelled drawing showing the appearance, structure, or workings of something	
Pictogram	Types of charts and graphs that use images / symbols to represent data.	
Graph	A visual representation that helps show information in a simple way.	
Independent variable	An independent variable is the thing that is deliberately changed during an investigation.	
Dependent variable	A dependent variable is what you measure in an experiment; it changes because of the independent variable.	
Control variable	Anything that is kept the same in an investigation to prevent it from affecting with the results.	
Scientific theory	An explanation of the natural world and universe that can be repeatedly tested and proven using a scientific method.	
Scientific process	The process of objectively establishing facts through testing and experimentation.	
Friction	The resistance force that one surface or object encounters when moving over another.	Sliding a rubber along a table
Force	An action (push or pull) that changes or maintains the motion of a body or object.	Friction, buoyancy (water resistance), air resistance, gravity, magnetic
Magnetic force	An invisible force or field that <i>causes</i> objects to attract or repel one another.	
Attract	A pull force that causes objects to move towards each other.	
Repel	A push force that causes objects to move away from each other.	

Absorb	To take in or soak up energy, liquid or other substance.	sponge in water
Nutrients	A substance that provides the nourishment essential for the maintenance of life and growth.	
Pollination	The transfer of pollen to a stigma, ovule, flower or plant to allow fertilisation.	
Seed formation	The combination of a male and female gamete which produces a seed: a process known as fertilisation.	
Seed dispersal	The process by which seeds are transported to new locations for germination.	
Skeletal system	The skeletal system is the body's support system and is comprised of bones, cartilage, tendons and ligaments.	
Muscular system	The muscular system is a collection of muscle fibres that group together to create muscles and allow your body to move.	
Support	A thing that bears the weight of something or keeps it upright.	
Protection	The action of protecting, or the state of being protected.	
Invertebrate	An animal which does not have a backbone.	Insects
Nutritious	A food that is nourishing and efficiently provides what the body requires.	
Fats	Fats are nutrients in food that the body uses to build cell membranes, nerve tissue and hormones.	
Fibre	Fibre helps to keep our digestive system healthy, move food through the gut, and maintain a healthy bodyweight.	
Carbohydrates	Carbohydrates provide our bodies with energy.	
Protein	Proteins help our bodies to grow, build muscle and repair itself.	
Digest	To break down food into tiny particles so it can be absorbed into the blood and used by the body.	
Digestive system	The system that breaks down food into tiny particles which are absorbed into the blood and used by the body.	Mouth, oesophagus, stomach, small intestine, large intestine, and anus
Incisors	The narrow-edged teeth at the front of the mouth, adapted for cutting.	

Canines	The four sharper pointed teeth on each side of the incisors.	
Premolars	The teeth between canine and molar teeth. An adult human normally has eight, two in each jaw on each side.	
Molars	Teeth for grinding and are found at the back of a mammal's mouth.	
Producer	An organism that creates its own food. Normally a photosynthesising plant	
Prey	An animal that is caught and killed by another animal for food.	
Predator	An animal that catches and kills another animal for food.	
Consumer	An organism that can't produce its own food and eats other plants or animals to get energy.	
Electricity	A type of energy that can be converted into heat, light, sound or movement.	
Series circuit	A circuit where all components are arranged in a single path with the electrical current flowing through each component.	
Cell	The power supply in an electrical circuit.	
Wire	A piece of metal that is used to carry an electrical current.	
Lamp	A device for producing light or heat.	
Switch	A device for making and breaking the connection in an electrical circuit.	
Electrical current	The flow of electrical charge.	
Electrical conductor	An object or material that allows the flow of electricity.	Metals, water.
Electrical insulator	An object or material that does not allow the flow of electricity.	Glass, brick, plastic, wood.
Sedimentary rock	Sedimentary rocks are made when sediment is buried and compressed under pressure	Shale, sandstone, limestone.
Metamorphic rock	Metamorphic rocks form when rocks are subjected to high heat, high pressure, hot mineral-rich fluids or, more commonly, some combination of these factors.	Marble, quartz, slate.
Igneous rock	A rock formed when Magma or lava cools.	Granite, pumice.
Fossil	The preserved remains or impression of a prehistoric plant or animal embedded in a rock.	
Solid	A substance that holds its shape because it is made up of particles that are packed closely together in a fixed structure.	Table, chair, playdough

Liquid	A substance where the particles are still close together, but not in a fixed structure meaning that they can flow.	Water, oil, fizzy drinks
Gas	A substance made up of high energy particles that have no fixed structure, are constantly moving rapidly and are not close together either. They are spaced out and have no fixed shape.	Oxygen, carbon dioxide, methane
Water cycle	The cycle of processes by which water circulates between the earth's oceans, atmosphere, and land, involving precipitation as rain and snow, drainage in streams and rivers, and return to the atmosphere by evaporation and transpiration.	
Evaporation	The process of turning from liquid into vapour.	
Condensation	Water which collects as droplets on a cold surface when humid air is in contact with it.	
Micro-organism	A living thing that is only visible under a microscope.	Bacteria, viruses, fungi, algae
Dark	The absence of light.	
Light	A phenomena that stimulates sight and makes things visible to the eye.	
Natural light	Light generated and emitted naturally without human input.	Sun, fire, fireflies, lava, jellyfish.
Artificial light	Light generated and emitted by things that are man-made.	Torches, lights, traffic lights, electronic devices, fireworks.
Vibration	The rapid back-and-forth movement of physical particles, as a reaction to different forces.	
Pitch	The degree of highness or lowness of a tone that is controlled by the speed of the vibrations producing it.	
Volume	How loud or quiet a sound is which is controlled by the size of the vibrations.	

Year 5/6

Term	Meaning	Example
Hypothesis	A prediction that you can test	The red car is faster than the blue car

Reliability	The degree to which the result of a measurement, calculation, or specification can be depended on to be accurate.	Repeating an investigation and getting the same result means that your data is reliable
Margin of error	The degree of uncertainty that your results might have.	
Anomaly	A result or something that deviates from what is standard, normal or expected.	
Limitation	An influence that effects the accuracy of results or data.	
Mitigation	The action of reducing the severity, seriousness, or painfulness of something.	
Insect	A small arthropod animal that has six legs and generally one or two pairs of wings.	Ants, bees, beetles, butterflies, moths, earwigs, stick insects, wasps.
Sexual reproduction	Reproduction where the male and female gamete combine to produce a new offspring.	
Sexual organ	A part of an organism that is involved in sexual reproduction.	Sperm cells, egg cells
Asexual reproduction	Reproduction where a new offspring is produced by a single parent and doesn't require the fusion of a male and female gamete.	
Circuit diagram	A symbolic representation of an electrical circuit.	
Voltage	The energy that pushes electricity around a circuit.	
Precaution	A measure taken in advance to prevent something dangerous, unpleasant, or inconvenient from happening.	
Emit light	To produce light.	Torch, LED, sun, fire, fireflies, fireworks, candles, electronic devices
Thermal conductivity	The rate that heat passes through a material.	
Solubility	The ability of a solid, liquid, or gas to dissolve in a liquid and form a solution.	
Dissolve	The act of becoming merged into a liquid so as to form a solution.	Sugar in tea

		Gravy granules in water
Solution	When something dissolves into a liquid	Salt water, orange squash, tea, coffee
Separate	The act of dividing into different distinct elements.	Boiling salt water to separate the salt and water
Filtering	The act of passing through a filter to remove a solid	Mixture of sand and water filtered
Sieving	The act of passing through a sieve to remove a solid	Sand and gravel
Reversible	Capable of being reversed so that the previous state or situation is restored.	Ice, water, water vapour
Gravity	The force that attracts and pulls a mass towards the centre of the Earth.	Dropping any object
Air resistance	The force that acts when an object moves through air and has to push air particles out of the way	A parachute jump, holding your hand out of the window when driving
Water resistance	The force that acts when an object moves through water and has to push water particles out of the way	A boat sailing, someone swimming
Lever	A rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other.	
Pulley	A wheel with a grooved rim around which a cord passes, which acts to change the direction of a force applied to the cord and is used to raise heavy weights.	
Gear	A toothed wheel that works with others to alter the relation between the speed of a driving mechanism (such as the engine of a vehicle) and the speed of the driven parts (the wheels).	
Solar system	The collection of eight planets and their moons in orbit round the sun.	
Sun	The star which the Earth orbits.	
Earth	The planet we live on.	
Moon	The natural satellite of the Earth, visible by reflected light from the sun.	
Heliocentric	An astronomical model which accepts and shows the sun at the centre of the solar system.	

Planet	A celestial body moving in orbit round a star.	Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune
Puberty	The period during which adolescents reach sexual maturity and become capable of reproduction.	
Drugs	A medicine or other substance which has a physiological effect in the body.	
Circulatory system	The system that circulates blood through the body (the heart, blood vessels and blood).	
Heart	The hollow muscular organ that pumps the blood through the circulatory system.	
Blood vessels	The arteries, veins and capillaries that carry blood throughout the body.	Arteries, veins, capillaries.
Inhabited	A place or environment that is lived in or occupied by a living thing.	
Adaptation	The process of change by which an organism or species becomes better suited to its environment.	Polar bears having thick, white fur. Camels having humps to store fat, leathery mouth to eat thistles, webbed toes to prevent sinking in sand.
Evolution	The process by which different kinds of living organism are believed to have developed from earlier forms throughout the history of the earth.	