



## Science Sequence of Learning

(Link to [MASTER Science Knowledge Progression \(2023\)](#))

Progression from EYFS Curriculum -  
 Building on learning from - The Connected Curriculum -  
[EYFS Knowledge and Skills Progression \(The Natural World\)](#)  
[Copy of EYFS Long Term Plan](#)

### Sequence of Learning Y1 - Y6

Year	Working scientifically	Scientific discipline			Vocabulary (Tier 3)	
		Biology	Physics	Chemistry	Theme specific	Subject specific
Year 1  <a href="#">Animals including humans</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants <b>Animals inc Humans</b> Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	Body, head, hand, arm, foot, leg, chest, neck, face, shoulders, waist, elbow, knee, ankle, wrist, neck, abdomen, sense, sight, sound, touch, taste, smell, hear, see, eye, nose, mouth, tongue, fingers, ears, human, mammals, reptile, amphibian, birds, fish, habitat, claw, hoof, paw, flipper, antlers, horn, tusks, skin, fur, feathers, scales, wings, beak, gills, fin,	<b>KEY STAGE 1</b> identify describe observe question answer sort compare contrast classify equipment data measurement patterns enquiry

					tentacles, Carnivore, herbivore, omnivore,
<a href="#">Materials</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	<b>Materials</b> Rocks States of matter	wood, plastic, glass, metal, water, rock, hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, not bendy, waterproof, not waterproof, absorbent, not absorbent, opaque, transparent, properties.
<a href="#">Plants</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	<b>Plants</b> Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces <b>Seasonal changes</b> Light Sound Earth and space	Materials Rocks States of matter	Plants, flowers, tree, vegetables, fruit, seeds, bulbs, roots, stem, petals, leaves, trunk, branches, deciduous, evergreen, light, water, soil, germinate, germination, seedling, young plant, adult plant.
<b>Year 2</b> <a href="#">Materials</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	<b>Materials</b> Rocks States of matter	material, properties, absorbency, waterproof, strong, weak, hypothesis, pipette, permeable,

					impermeable, manmade, natural, melting, moulding, cooling, elastic, shape, changed, twist/twisting, squash/squashing, bend/bending, stretch/stretching, flexibility, fabric, fair, tear, rip, weight, grams, bar chart, results,
<a href="#">Animals including humans</a>	<p>Predict</p> <p>Observe</p> <p>Investigate</p> <p>Identify, classify and group</p> <p>Measure</p> <p>Interpret and conclude</p> <p>Evaluate</p> <p>Research</p>	<p>Plants</p> <p><b>Animals inc Humans</b></p> <p>Living things and their habitats</p> <p>Evolution and inheritance</p>	<p>Electricity</p> <p>Forces</p> <p>Seasonal changes</p> <p>Light</p> <p>Sound</p> <p>Earth and space</p>	<p>Materials</p> <p>Rocks</p> <p>States of matter</p>	<p>clean, hygiene, food energy, gills, lungs, germs, babies, egg, live young, nutrition, healthy, egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep. Growing into adults can include reference to baby, toddler, child, teenager, Egg, caterpillar, pupa (Chrysalis), adult. alter, pupate,</p>
<a href="#">Plants</a>	<p>Predict</p> <p>Observe</p> <p>Investigate</p> <p>Identify, classify and group</p> <p>Measure</p> <p>Interpret and conclude</p> <p>Evaluate</p>	<p><b>Plants</b></p> <p>Animals inc Humans</p> <p>Living things and their habitats</p> <p>Evolution and inheritance</p>	<p>Electricity</p> <p>Forces</p> <p>Seasonal changes</p> <p>Light</p> <p>Sound</p> <p>Earth and space</p>	<p>Materials</p> <p>Rocks</p> <p>States of matter</p>	<p>water, light, suitable, temperature, grow, healthy, germination, reproduction, seed, bulbs,</p>

	Research				healthy, soil, nutrients, leaves, flowers, blossom, petals, fruit, roots, trunk, branches, stem	
<a href="#">Living things and their habitats</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans <b>Living things and their habitats</b> Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	habitat, environment, adaptation, grow, urban, natural, desert, forest, marine, fresh water, grassland, arctic, food chain, energy, bottom of the food chain, top of the food chain, ecosystem, micro habitat, evolve, experiment.	
<b>Year 3</b> <a href="#">Rocks</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials <b>Rocks</b> States of matter	rock, granite, sandstone, chalk, limestone, marble, slate, soft, crumbly, hard, strong, fair test, acid, geologist, fossil. organism, sediment, sedimentary, igneous, metamorphic, extinct, minerals, crust, core.	<b>KEY STAGE 2</b> prediction conclusion evidence explanation diagram systematic comparative test fair test construct interpret accurate variables causal relationships improve
<a href="#">Animals</a>	Predict Observe	Plants <b>Animals inc Humans</b>	Electricity Forces	Materials Rocks	photosynthesis, chlorophyll,	

<a href="#">including humans</a>	Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Living things and their habitats Evolution and inheritance	Seasonal changes Light Sound Earth and space	States of matter	chloroplasts, carbon dioxide, grains, vegetables, fruits, protein, oils, nutrients, vitamins, minerals, fibre, saturated fats, unsaturated fats, carbohydrates, skeleton, vertebrates, invertebrates, exoskeleton, endoskeleton, hydrostatic skeleton, bones, joints, muscles, tendons, voluntary and involuntary movement.	precision quantitative
<a href="#">Forces</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity <b>Forces</b> Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	force, push, pull, friction, motion, magnet, compass, magnetic field, north pole, south pole, repel, electrons, neutrons, iron, steel, nickel, cobalt, protons, atoms, attract, electromagnet.	
<a href="#">Plants</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude	<b>Plants</b> Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	stem, flower, leaves, roots, anchor, seeds, food, transport, holds, carries, water, flowers,	

	Evaluate Research				nutrients, leaves, absorb, sunlight, prediction, conclusion, movement, respiration, growth, reproduction, excretion, nutrition, sensitivity, water transportation, investigation, germination, growing and flowering, fertilisation and seed formation, seed dispersal.	
<a href="#">Light</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes <b>Light</b> Sound Earth and space	Materials Rocks States of matter	Summer- light, darkness, white light, UV rays, sclera, iris, cornea, pupil, lens, conjunctiva, vitreous, choroid, optic nerve, macula, retina, light reflection, refraction, ozone layer, shadows, reflections, equator, infrared, ultraviolet, transparent, opaque, translucent.	
Year 4 <a href="#">Living things and their</a>	Predict Observe Investigate Identify, classify and group Measure	Plants Animals inc Humans <b>Living things and their habitats</b> Evolution and	Electricity Forces Seasonal changes Light Sound	Materials Rocks States of matter	Producer, unique, vertebrate, mammal, habitat, ecosystem, food chain, energy,	

<a href="#">habitats</a>	Interpret and conclude Evaluate Research	inheritance	Earth and space		consumer, snails, fish, birds, worms, movement, respiration, sensitivity, growth, reproduction
<a href="#">Sound</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light <b>Sound</b> Earth and space	Materials Rocks States of matter	vibrate, vibration, vibrating, air, medium, ear, hear, sound, volume, pitch, faint, fainter, high, low
<a href="#">States of matter</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks <b>States of matter</b>	solid liquid gas state melting boiling evaporation condensation water cycle temperature thermometer degrees celsius
<a href="#">Electricity</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	<b>Electricity</b> Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	Circuit Wires Bulbs Buzzer Series Battery Insulator Conductor Metals Brightness Voltage Cells Components Symbols

<u>Animals including humans</u>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants <u>Animals inc Humans</u> Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	human digestive system mouth tongue-mixes, moistens, saliva teeth: incisors-cutting, slicing canines- ripping, tearing molars-chewing, grinding oesophagus transports stomach acid enzymes small intestine large intestine carnivore herbivore omnivore brush floss food chain Sun producers prey predators	
Year 5 <u>Forces</u>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity <u>Forces</u> Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	support, fall, Earth, gravity, air resistance, friction, balancing force, weight, newtons, resistance force, moving surfaces, accuracy, precision, casual relationships, mechanisms, levers, pulleys, transfers, gears, friction resistance force, support/refute, water resistance	
<u>Earth and Space</u>	Predict Observe	Plants Animals inc Humans	Electricity Forces	Materials Rocks	Earth, Sun, Moon, moon,	



	<p>Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research</p>	<p>Living things and their habitats Evolution and inheritance</p>	<p>Seasonal changes Light Sound Earth and space</p>	<p>States of matter</p>	<p>planets, star, solar system, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, dwarf planet, movement, rotate, orbit, axis, celestial body, spherical, sphere, day, night, light, heat, eclipse, satellite, universe, solar, astronomer, shadow clock, sundial, geocentric model, heliocentric model, revolve, spin, atmosphere, Alhazen, Copernicus, first quarter, full moon, Galileo, illuminate, new moon, phase, third quarter</p>	
<p><a href="#">Properties and changing materials</a></p>	<p>Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research</p>	<p>Plants Animals inc Humans Living things and their habitats Evolution and inheritance</p>	<p>Electricity Forces Seasonal changes Light Sound Earth and space</p>	<p>Materials Rocks States of matter</p>	<p>Properties, materials, grouping, classifying, permeability, absorbency, hardness, solubility, transparency, conductivity (electrical &amp; thermal),</p>	

					<p>magnets, Insulator, conductor, thermal, heat, temperature, fair test, variables, solid, liquid, gas, dissolve, mixture, soluble, reversible, irreversible, chemical changes, reactant, product, carbon dioxide, solution, evaporation, magnetism, filtration, sieving</p>	
<p><a href="#">Animals including humans</a></p>	<p>Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research</p>	<p>Plants <b>Animals inc Humans</b> Living things and their habitats Evolution and inheritance</p>	<p>Electricity Forces Seasonal changes Light Sound Earth and space</p>	<p>Materials Rocks States of matter</p>	<p>Scatter &amp; line graphs, bar charts, causal relationships, support/refute, gestation, life cycle, sperm, egg, foetus, correlation, scientific diagram, support/refute, foetus, development, nutrition, uterus, baby, child, growth, comparison, development, centile, healthy, adolescence, adolescent, puberty, teenager,</p>	

					reproduction, penis, scrotum, sperm tune, testicles, genitals, childhood, erection, babyhood, period, wet dream, pubic hair, ejactulation, menarche, pregnancy, uterus/womb, masturbation, sperm, clitoris, foreskin, contraception, vagina, menstruation	
<a href="#">Living things and their habitats</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans <a href="#">Living things and their habitats</a> Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	Sexual, asexual, reproduction, gamete, cell, pollen, ovule, fusion, fertilisation, pollination, cuttings, roots, male, female, sperm, ovum, penis, vagina, fertilise, pregnancy, gestation, montreme, marsupials, placentals, young, family tree, chimpanzee, life cycle, endangered, extinct,	

					metamorphosis, amphibian, insect, transform, larvae, pupa, nymph, egg, albumen, germinal disc, chalaza, shall membranes, shell, yolk, embryo, reproduce
Year 6 <a href="#">Living things and their habitats</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans <a href="#">Living things and their habitats</a> Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	Carl Linnaeus Kingdoms Multi-cellular Animals Plants Fungi Protists Prokaryotes Phylum Class Order Family Genus Species
<a href="#">Animals including humans</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants <a href="#">Animals inc Humans</a> Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	Circulatory Oxygenated blood Deoxygenated blood Atria Left atrium Right atrium Left ventricle Right ventricle Valves Red blood cells White blood cells Platelets Plasma Pulmonary artery

					<ul style="list-style-type: none"> <li>Pulmonary veins</li> <li>Arteries</li> <li>Veins</li> <li>Capillaries</li> <li>Diffusion</li> <li>Osmosis</li> <li>Recreational drugs</li> <li>Cigarettes</li> <li>Alcohol</li> <li>Ethanol</li> <li>Nutrients</li> </ul>
<a href="#">Evolution and inheritance</a>	<ul style="list-style-type: none"> <li>Predict</li> <li>Observe</li> <li>Investigate</li> <li>Identify, classify and group</li> <li>Measure</li> <li>Interpret and conclude</li> <li>Evaluate</li> <li>Research</li> </ul>	<ul style="list-style-type: none"> <li>Plants</li> <li>Animals inc Humans</li> <li>Living things and their habitats</li> <li><a href="#">Evolution and inheritance</a></li> </ul>	<ul style="list-style-type: none"> <li>Electricity</li> <li>Forces</li> <li>Seasonal changes</li> <li>Light</li> <li>Sound</li> <li>Earth and space</li> </ul>	<ul style="list-style-type: none"> <li>Materials</li> <li>Rocks</li> <li>States of matter</li> </ul>	<ul style="list-style-type: none"> <li>Evolution</li> <li>Charles Darwin</li> <li>Alfred Wallace</li> <li>Mary Anning</li> <li>Environment</li> <li>Adaptation</li> <li>Offspring</li> <li>Characteristics</li> <li>Fossils</li> <li>Adaptive traits</li> <li>Inherited traits</li> <li>Habitats</li> <li>Variation</li> <li>Natural selection</li> <li>Human intervention</li> </ul>
<a href="#">Electricity</a>	<ul style="list-style-type: none"> <li>Predict</li> <li>Observe</li> <li>Investigate</li> <li>Identify, classify and group</li> <li>Measure</li> <li>Interpret and conclude</li> <li>Evaluate</li> <li>Research</li> </ul>	<ul style="list-style-type: none"> <li>Plants</li> <li>Animals inc Humans</li> <li>Living things and their habitats</li> <li>Evolution and inheritance</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Electricity</a></li> <li>Forces</li> <li>Seasonal changes</li> <li>Light</li> <li>Sound</li> <li>Earth and space</li> </ul>	<ul style="list-style-type: none"> <li>Materials</li> <li>Rocks</li> <li>States of matter</li> </ul>	<ul style="list-style-type: none"> <li>Voltage</li> <li>Battery</li> <li>Cell</li> <li>Switch</li> <li>Circuit</li> <li>Series circuit</li> <li>Motor</li> <li>Bulb</li> <li>Buzzer</li> <li>Symbol</li> <li>Component</li> <li>Resistance</li> <li>Electrons</li> <li>Amps</li> </ul>

					Current Thomas Edison Nikola Tesla	
<a href="#">Light</a>	Predict Observe Investigate Identify, classify and group Measure Interpret and conclude Evaluate Research	Plants Animals inc Humans Living things and their habitats Evolution and inheritance	Electricity Forces Seasonal changes Light Sound Earth and space	Materials Rocks States of matter	Shadows Sun Colours Rainbows Light sources Surfaces Reflect Incident ray Reflected ray The law of reflection Refraction Visible spectrum Prism Transparent Translucent Opaque Isaac Newton	