

Science Curriculum Key Vocabulary Progression Chart

Scientists and other important historical people

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working Scientifically						
	<p>question, answer, observe, observing, equipment, identify, sort, group, compare, differences, similarities, describe, measurements, test, results, secondary sources</p> <p><b>record</b> - diagram, chart</p>	<p>oral and written explanations, conclusion, predictions, criteria, classify, changes, data, contrast, evidence, improve, secondary sources, guides, keys, construct, interpret</p> <p><b>research</b> - relevant question</p> <p><b>equipment</b> - thermometer,</p> <p><b>data</b> - gather, standard units, record, classify, present</p> <p><b>record</b> - drawings, labelled diagrams, keys, bar charts, tables</p>	<p>plan, variables, measurements, accuracy, precision, repeat readings, predictions, further comparative and fair test, identify, classify and describe, patterns, systematic, quantitative measurements</p> <p><b>report data</b> - scientific diagrams, labels, classification keys, tables, scatter graphs, bar graph and line graphs</p> <p><b>report and present</b> - conclusions, casual relationships, explanations, degree of trust, oral and written display and presentation</p> <p><b>evidence</b> - support, refute, ideas or arguments</p> <p>biology, physics, chemistry</p>			

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<h1>Plants</h1>	<p>deciduous, evergreen, tree, leaf, flower (blossom), petals, fruit, bulb, seed, roots, stem, trunk,</p> <p><b>Maria Sibylla Merian</b> (German artist, scientific illustrator, and naturalist)</p>	<p>growth, germinate, light, temperature reproduce, lifecycle</p> <p><b>Joseph Banks</b> (Naturalist on Captain Cooks voyage around the world)</p> <p><b>Daniel Solander</b> (Botanist who worked with Joseph Banks)</p> <p><b>Angie Burnett</b> (Plant Biologist who grows plants and sees how they react to different conditions that make it more difficult for them to grow)</p>	<p>air, water, transportation, nutrients, soil, reproduction, seed formation, seed dispersal, pollination</p> <p><b>Jan Ingenhousz</b> (Doctor &amp; Scientist who discovered the process of photosynthesis)</p>			

# Animals including humans

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>amphibians, fish, reptiles, mammals, birds (+ 1 example of each) herbivore, omnivore, carnivore head, nose, ear, neck, shoulder, arm, elbow, wrist, hand, back, chest, hip, leg, knee, ankle, foot, wing, beak, tail, fin, senses</p> <p><b>Miller Hutchinson</b> (invented hearing aids)</p>	<p>survival, water, air, food reproduce, adult, baby, offspring, kitten, calf, puppy food chain, prey, predator, camouflage, protection exercise, hygiene, balanced diet</p> <p><b>Florence Nightingale</b> (founder of modern medicine) <b>Elizabeth Garrett Anderson</b> (First English woman to qualify as a doctor)</p>	<p>skeleton, skull, bones, muscles, movement, support, protection, nutrition</p> <p><b>Wilhelm Roentgen</b> (Physicist who discovered x-rays) <b>Marie Curie</b> (Physicist who invented the first mobile x-ray machine to treat soldiers wounded on the battlefield in WWI)</p>	<p>mouth, tongue, teeth, oesophagus, stomach, small intestine, large intestine, nutrients, absorb, canine, incisor, molar producer, consumer, apex predator</p> <p><b>William Beaumont</b> (Surgeon who first observed and studied human digestion as it occurs in the stomach) <b>Washington &amp; Lucius Sheffield</b> (Dentists who invented toothpaste in a tube)</p>	<p>womb, foetus, embryo, gestation, baby, toddler, teenager, elderly growth, development, puberty</p>	<p>function, circulatory system, heart, valve, blood vessel, vein, artery transport, oxygenated, deoxygenated lifestyle, drug, adaptation, evolution, characteristic, reproduction, genetics, survival</p> <p><b>William Harvey</b> (discovered the nature of blood circulation and the function of the heart as a pump) <b>Santorio Santorio</b> (invented an instrument to measure pulse accurately using a pendulum) <b>Mary Anning</b> (Fossil hunter)</p>

Everyday materials/ States of matter/ Properties  
and changes of materials

Year 1

wood, plastic,  
glass, paper,  
metal, rock,  
hard, soft,  
rough, smooth,  
shiny, dull,  
bendy, stiff

**Becky Schroeder**  
(invented glow  
sheets at 10  
year old)

**Chester Greenwood**  
(Invented earmuffs)

Year 2

brick, fabric,  
elastic, foil,  
property, solid,  
waterproof,  
absorbent,  
opaque,  
transparent,  
squash, bend,  
flexible, twist,  
stretch  
push, pull, roll,  
slide, bounce

**Charles Macintosh**  
(Chemist and  
inventor of  
waterproof  
clothing)

Year 3

soils, organic  
matter, fossil,  
crystal,  
sandstone,  
granite, marble,  
pumice  
absorbent,  
crumble  
sedimentary,  
layer, sediment  
igneous, magma,  
lava, gas bubbles  
(tiny  
holes/spaces)  
metamorphic,  
change, squeeze,  
pressure

**William Smith**  
(Engineer &  
Geologist who  
developed the  
science of rock  
strata)

**James Hutton**  
(Scientist who  
studied rocks and  
the effects of  
natural processes on  
them, such as rain,  
running water, tides,  
and volcanoes, on the  
development of the  
Earth)

Year 4

solid, liquid, gas,  
evaporation,  
condensation,  
particle,  
temperature,  
freezing, heating

**Joseph Priestley**  
(clergyman) and **Carl  
Wilhelm Scheele**  
(chemist)

(Both discovered  
oxygen at about the  
same time)

**Daniel Fahrenheit**  
(Physicist who  
invented the  
Fahrenheit  
temperature scale  
and the  
thermometer)

**Anders Celsius**  
(Astronomer who  
invented the degrees  
Celsius temperature  
scale)

**John Boyd Dunlop**  
(Inventor of the  
pneumatic

Year 5

hardness,  
transparency,  
conductivity  
(electrical,  
thermal)  
solubility, solution  
dissolve, filter,  
evaporate, sieve,  
reversible,  
irreversible

**Spencer Silver &  
Arthur Fry**  
(Chemical  
Engineer &  
Chemist

respectively who  
invented the post-  
it note)

**Ruth Benerito**  
(Chemist who  
developed wrinkle-  
free cotton  
fabric)

**Raquel Prado**  
(Chemist who  
develops a  
sustainable fabric  
that looks like  
leather but comes  
from pineapple  
leaves that would  
otherwise be  
burnt)

Year 6

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Living things and their habitats		<p>Living, dead, habitat, energy transfer, food chain, predator, prey, woodland, pond, desert, suitable</p> <p><b>William Kirby</b> (Founder of entomology- study of insects)</p>		<p>vertebrates, invertebrates (+ 1 example of each) environment, habitat, classification key</p> <p><b>Jacques Cousteau</b> (Oceanographer and co-inventor of the aqualung)</p>	<p>life process, reproduction, offspring,</p> <p><b>David Attenborough</b> (Naturalist &amp; TV Presenter)</p> <p><b>Jane Goodall</b> (Wildlife Researcher &amp; Conservationist who studied chimpanzees)</p>	<p>characteristic, classification, organism, micro-organism</p> <p><b>Carl Linnaeus</b> (Botanist &amp; Zoologist who developed a taxonomy for classifying organisms)</p>

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Light/Sound			<p>light source, mirror, reflect, reflective, reflection shadow, blocked transparent, translucent, opaque</p> <p><b>Percy Shaw</b> (Inventor of the cat's eye)</p>	<p>vibration, wave, volume, pitch, tone, insulation</p> <p><b>Aristotle</b> (Philosopher who developed the concept that sound travels through air due to the movement of air particles)</p> <p><b>Isaac Newton</b> (Mathematician &amp; Physicist who measured the speed of sound)</p>		<p>refraction, reflection, spectrum, rainbow</p> <p><b>Euclid</b> (Mathematician who predicted that light travels in straight lines and we only see things that light falls on)</p> <p><b>Ibn al-Haytham (Alhazen)</b> (Physicist &amp; Mathematician who developed a theory that light travels in a straight line, and proved it by carrying out the first scientific experiment)</p>

# Forces and Magnets

Year 1

Year 2

Year 3

force, contact, surface,  
magnetic, attract, repel,  
poles

**William Gilbert**

(Doctor who  
developed the  
theory of  
magnetism)

**Leonardo Da Vinci**

(First person to plan  
and carry out tests  
on friction)

Year 4

Year 5

air resistance,  
water resistance,  
friction, gravity  
lever, gear, pulley,  
Newtons

**Archimedes**

(Mathematician  
who developed  
theories about  
how levers and  
pulleys can lift  
and move heavy  
objects)

**Galileo Galilei**

(Astronomer,  
Mathematician &  
Physicist who was  
the first person  
to use the  
scientific method  
to test theories  
about gravity and  
the Solar System)

**Isaac Newton**

(Mathematician &  
Physicist who  
developed  
theories about  
gravity)

Year 6

# Earth and space

Year 1

Year 2

Year 3

Year 4

Year 5

Year 6

Earth, sun, moon,  
solar system, axis of  
rotation, day, night,  
phases of the moon,  
star, constellation

**Nicolaus**

**Copernicus**

(Astronomer who  
developed the  
theory that the  
Sun was at the  
centre of the  
Solar System  
around which the  
planets orbited)

**Galileo Galilei**

(Astronomer,  
Mathematician &  
Physicist who  
made the first  
telescope and  
discovered  
Neptune and the  
rings of Saturn)

**Helen Sharman**

(Astronaut who  
was the first  
British citizen to  
go into space)

**Tim Peake**

(Astronaut who  
was the first  
British person to  
walk in space)

Electricity	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				appliance, battery power, main power, circuit, series, cell, battery, wire, bulb, switch, break in circuit conductor, insulator		circuit - series, parallel voltage, volts, amps
				<b>Thomas Edison</b> (Inventor of the lightbulb and power grid)		<b>Nikola Tesla</b> (Electrical & Mechanical Engineer who developed the AC electrical system and made important advances in technologies such as x-rays, neon lights and robotics)
				<b>Joseph Swan</b> (Physicist & Chemist who developed a primitive electric light 20 years before Thomas Edison)		<b>Alessandro Volta</b> (Physicist who developed the electric battery)