

Whole School Science Progression with Scientists

BIOLOGY

Animals Including Humans

Year	Topic Focus	Key Learning	Key Scientist
Year 1	Body parts & senses	Identify body parts and senses	Louis Pasteur – discovered germs
Year 2	Growth & survival	Basic needs for survival	Florence Nightingale – hygiene and health Mary Seacole - helping children understand how we keep our bodies healthy and support others when they are ill.
Year 3	Nutrition & skeletons	Nutrition, skeletons and muscles	Marie Curie – science of the human body and medicine
Year 4	Digestive system	Functions of digestive organs and teeth	William Beaumont – studied digestion
Year 5	Human development	Changes from birth to old age	Jane Goodall – studies of primates and behaviour
Year 6	Circulatory system	Heart, blood vessels and nutrients	William Harvey – discovered blood circulation

Plants

Year	Topic Focus	Key Learning	Key Scientist
Year 1	Identify plants	Identify trees and plants	Wangari Maathai - she shows how plants are living things that help animals and people by improving habitats and the environment.
Year 2	Plant growth	Seeds and bulbs grow into plants	George Washington Carver – plant science
Year 3	Plant structure	Functions of plant parts	Jan Ingenhousz – discovered photosynthesis

Year 4	Plants in habitats	Plant survival in environments	David Attenborough – ecosystems
Year 5	Plant life cycles	Reproduction and pollination	Gregor Mendel – genetics and inheritance
Year 6	Adaptation	Links to evolution	Charles Darwin – evolution

Living Things and Their Habitats

Year	Topic Focus	Key Learning	Key Scientist
Year 2	Habitats	Living, dead and never alive	Steve Irwin – wildlife conservation
Year 3	Fossils	Fossil formation	Mary Anning – fossil discovery
Year 4	Classification	Group living things	Carl Linnaeus – classification system
Year 5	Life cycles	Reproduction in plants and animals	Rachel Carson – ecosystems
Year 6	Classification systems	Microorganisms and classification	Carl Woese – modern classification

Evolution and Inheritance

Year	Topic Focus	Key Learning	Key Scientist
Year 6	Evolution	Adaptation and inheritance	Charles Darwin & Alfred Wallace

CHEMISTRY

Materials

Year	Topic Focus	Key Learning	Key Scientist
Year 1	Everyday materials	Identify and describe materials	John McAdam – road materials

Year 2	Uses of materials	Suitability of materials	Charles Macintosh – waterproof materials
Year 3	Rocks	Rock types and fossils	Mary Anning – geology
Year 4	States of matter	Solids, liquids and gases	Anders Celsius – temperature scale
Year 5	Properties of materials	Reversible and irreversible changes	Dmitri Mendeleev – periodic table

⚡ PHYSICS

Forces

Year	Topic Focus	Key Learning	Key Scientist
Year 3	Forces and magnets	Push/pull forces and magnets	William Gilbert – magnetism
Year 5	Forces	Gravity, friction and air resistance	Isaac Newton – gravity

Light

Year	Topic Focus	Key Learning	Key Scientist
Year 3	Light	Light sources and shadows	Ibn al-Haytham – optics
Year 6	Light	Light travels in straight lines	Isaac Newton – light spectrum

Sound

Year	Topic Focus	Key Learning	Key Scientist
Year 4	Sound	Vibrations, pitch and volume	Alexander Graham Bell – sound and telephones

Electricity

Year	Topic Focus	Key Learning	Key Scientist
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Year 4	Simple circuits	Construct circuits	Michael Faraday – electricity
Year 6	Circuit diagrams	Voltage and circuit symbols	Nikola Tesla – electrical systems

Earth and Space

Year	Topic Focus	Key Learning	Key Scientist
Year 5	Earth and space	Solar system, orbit and rotation	Galileo Galilei / Stephen Hawking