

Bennerley Fields School

Science Progression Map (Stages 1–4)

Curriculum Intent

Science at Bennerley Fields develops from exploring and experiencing the world in Stage 1 to independent scientific thinking, investigation and application by Stage 4. Pupils progressively build their understanding of Biology, Chemistry and Physics whilst developing increasingly sophisticated Working Scientifically skills.

Bennerley Fields School Science Progression Map

Phase	Biology ●	Chemistry ●	Physics ●	Working Scientifically
Stage 1	Animals, plants, habitats, life cycles, seasonal changes. Recognise and name living things.	Everyday materials, textures, shiny/dull, floating and sinking, simple changes.	Light and dark, movement, push and pull, seasonal changes.	Observe, explore, notice, use senses.
Stage 2 Early Engagement	Body parts, senses, habitats, animal needs, growth, life cycles, simple food chains.	Explore materials, solids/liquids, melting and freezing.	Sound, magnets, shadows, gravity, simple forces.	Experience, match, sort, respond.
Stage 2 Engagement	Human development, plant growth, food chains, habitats, life cycles, classification.	Properties of materials, states of matter, changes in materials.	Forces, friction, gravity, sound, electricity awareness.	Identify, compare, describe, group.



Phase	Biology ●	Chemistry ●	Physics ●	Working Scientifically
Stage 2 Progression	Food chains, adaptation, inheritance, classification, survival needs.	Dissolving, mixing, weathering, rocks, material changes.	Circuits, magnets, gravity, solar system, Earth & Space.	Classify, predict, investigate.
Stage 3	Food webs, ecosystems, digestion, skeletons, conservation, plant reproduction and pollination.	Solutions, separation, rocks, fossils, erosion, reversible and irreversible changes.	Electricity, sound transmission, light, gravity, friction, Earth & Space.	Plan investigations, record results, explain findings, draw conclusions.
Stage 4 Pre-Entry	Animal life cycles, plant variation.	Materials and properties, exploring rocks.	Forces, magnets, Earth, Sun and Moon.	Explore, identify, communicate findings.
Stage 4 Lower Entry	Human ageing, plant survival, food chains.	States of matter, dissolving, heating, weathering.	Gravity, attraction, repulsion, rockets and space exploration.	Measure, observe, compare, record.
Stage 4 Higher Entry	Puberty, reproduction, germination, evolution and inheritance.	Reversible and irreversible changes, evaporation, separation techniques, material suitability.	Friction, magnetic fields, moon phases, solar system, forces and motion.	Analyse, evaluate, justify and apply scientific understanding.

Term-by-Term Curriculum Map

Phase	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Stage 1	Plants, Woodland Animals, Seasonal Change, Materials	Materials & Winter Change	Plants, Food Chains, Floating & Sinking	Animal Growth & Needs	Minibeasts & Habitats	Rock Pool Plants & Animals, Summer Change
Stage 2 Early Engagement	Animals Including Humans	Sound	Forces & Magnets	States of Matter	Habitats & Life Cycles	Materials & Properties
Stage 2 Engagement	Animals Including Humans	Sound	Forces & Magnets	States of Matter	Habitats, Survival & Life Cycles	Materials & Their Uses
Stage 2 Progression	Animals Including Humans, Evolution & Inheritance	Sound	Forces & Magnets	States of Matter	Living Things & Habitats	Materials & Their Uses
Stage 3	Habitats, Food Webs, Materials, Sound	Earth & Space, Digestion	Forces, Food Chains, Light	Rocks, Fossils, Humans	Solutions, Materials, Water Cycle	Plant Reproduction, Magnets
Stage 4 Year 1	Animals Including Humans	Plants	Properties & Changes of Materials	Rocks	Forces & Magnets	Earth & Space

Phase	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Stage 4 Year 2	Living Things & Habitats	Evolution & Inheritance	States of Matter	Everyday Materials & Uses	Light & Sound	Electricity

Science Concept Progression

Scientific Concept	Stage 1	Stage 2 EE	Stage 2 E	Stage 2 P	Stage 3	Stage 4
Animals	Body parts & senses	Recognise animals	Growth & development	Classification	Skeletons & digestion	Reproduction & evolution
Plants	Explore plants	Identify plants	Plant growth	Plant functions	Pollination & reproduction	Germination & life cycles
Habitats	Animal homes	Recognise habitats	Habitat features	Adaptation & survival	Ecosystems & food webs	Global habitats & evolution
Materials	Explore textures	Recognise materials	Compare properties	Classify materials	Investigate changes	Explain material suitability
States of Matter	Melting & freezing	Solids/liquids	Identify states	Changes of state	Evaporation & condensation	Reversible/irreversible changes

Scientific Concept	Stage 1	Stage 2 EE	Stage 2 E	Stage 2 P	Stage 3	Stage 4
Rocks	Natural materials	–	Introduction	Rock identification	Fossils & erosion	Weathering & formation
Forces	Push & pull	Simple movement	Gravity & friction	Magnets & forces	Air resistance & buoyancy	Advanced forces
Sound	Explore sounds	Respond to sounds	Identify sounds	Pitch & volume	Sound transmission	Vibration & reflection
Electricity	Cause/effect	Electrical objects	Sources of electricity	Simple circuits	Circuit construction	Parallel circuits
Earth & Space	Seasonal changes	Moon & planets	Earth awareness	Solar system	Orbit & planets	Moon phases & Earth relationships

Biology Golden Thread

Progression
Body Parts & Senses
↓
Animals & Plants

Progression
Habitats
↓
Human Growth
↓
Life Cycles
↓
Classification
↓
Food Chains
↓
Food Webs
↓
Adaptation
↓

Progression
Evolution
↓
Inheritance
↓
Reproduction

Chemistry Golden Thread

Progression
Materials
↓
Properties
↓
Floating & Sinking
↓

Progression
Melting & Freezing
↓
States of Matter
↓
Mixing
↓
Dissolving
↓
Separation
↓
Rocks
↓
Weathering
↓

Progression
Chemical Change

Physics Golden Thread

Progression
Light & Dark
↓
Movement
↓
Push & Pull
↓
Sound
↓
Magnets
↓

Progression
Forces
↓
Gravity
↓
Friction
↓
Electricity
↓
Circuits
↓
Earth & Space
↓
Solar System