

Science Overview – coverage and sequencing summary

Brookburn's rationale behind the science curriculum design:

Inspires children and stimulates curiosity about the world around them through investigation and predicting.

Our science curriculum ensures a balance of: Biology, Chemistry, Physics and working scientifically. Children will learn about:

Biology

- Living things, their habitats
- Plants
- animals including humans.
- Evolution and inheritance.

Chemistry

- Everyday materials, properties and changes.
- States of matter
- Rocks
- Seasonal changes

Physics

- Sound and Light
- Forces and magnets
- Electricity
- Earth and space

Through science, children will make links and connections with other subjects, for example creating tables, analysing data, learning about climates in other countries and writing reports.

	Autumn 1 / 2		Spring 1 / 2		Summer 1 / 2	
Nursery	Seasons (Autumn)	Materials Traditional tales (3 little pigs) sorting materials	Seasons (Winter)	Local environment - Farm	Seasons (Spring) Growing (plants) exploring and looking at things growing from seeds.	Seasons (Summer) Minibeasts Life cycles of how animals grow, caterpillar changing into a butterfly
Reception	Seasons (Autumn)	Materials Traditional tales (3 little pigs) naming and sorting	Seasons (Winter) investigation 'What happens to ice in different places around our school?' Predictions about what might happen. What happens and why.	Local environment 'The elephant's umbrella'	Seasons (Spring) Growing (plants) naming plants roots and leaves. Making observations about plants.	Seasons (Summer) Minibeasts Life cycles of how animals grow making observations of caterpillars and butterflies

Year 1	Materials Identify and name a variety of everyday materials. Describe simple physical properties of everyday materials. Compare and group everyday materials based on their simple properties		Animals involving humans Identify & name common animals (<i>including fish, amphibians, reptiles, birds and Mammals</i>). Identify and name a variety of common animals that are carnivores, herbivores and omnivores		Plants Identify plants and name basic structure (<i>roots, trunk, branches and leaves of trees</i>)
Year 2	Materials Identify and compare suitability of a variety of materials for particular uses. How shapes of solid objects can be changed by squashing, bending, twisting and stretching		Living Things and Habitats and Animals including Humans How living things are suited to their habitat How living things depend upon each other Food chains		Plants Conditions and sequence of plant growth (<i>water, light warmth</i>)
Year 3	Animals including Humans Importance of nutritious, balanced diet. Identify that humans and some other animals have skeletons and muscles for support, protection and movement		Magnets Magnets attracting and repelling. Forces including how a pulley system works.	Plants Conditions for plant growth. Functions of parts of a plant Life cycle of a plant	Light Light Shadows Reflection Rocks and Soil Compare and group different kinds of rocks based on their appearance and simple physical properties • Describe how fossils are formed
Year 4	States of Matter States of Matter Changes of state (condensation & evaporation)	Sound Sound and vibrations	Electricity Simple circuits Conductors and insulators		Digestive system and teeth Function of digestive system Teeth & functions in humans. Food chains Living Things and their habitats Variation Classification

Year 5	Materials and their properties Reversible and irreversible changes		Forces Gravity Air resistance Water resistance Friction Mechanisms (pulleys, levers and gears)	Human Life Cycles and Life Cycles of different Living Things Human Life Cycle Life cycles of different living things (mammals, amphibians, insect, birds) Reproduction in plants and animals	Earth and Space Movement of Earth, Sun & Moon. Day & Night
Year 6	Electricity Recognising and using symbol representation of components Changing circuits.	Energy: Light and Sight Refraction & how we see How light travels Shadows How simple optical instruments work	Evolution and Inheritance Adaptation Variation Evolution	Living things and their Habitats Classification of plants & animals	Animals including Humans Classify living things into broad groups according to observable characteristics and based on similarities and differences.