



**Bloxwich Academy**  
'Be The Best You Can Be'

## Science Framework Overview

### Overview

This progression map shows the concepts and small steps taught to pupils from Year 1 to Year 6. Science is mapped across each term and concepts revisited incorporating a spiral approach through retrieval this is to ensure we broaden and deepen pupils' knowledge and they have the chance to use and apply new knowledge. In brackets, after the concept, is the small steps taught for remembering and mastering.

Term	Autumn	Spring	Summer
<b>Year 1</b>	<p><b>The Human Body</b> (name and identify parts of the human body, draw and label parts of the human body, sight, sound, taste, touch, smell)</p> <p><b>Seasonal Changes - Autumn</b> (changes in autumn, collect and record data)</p> <p><b>Materials</b> (explore materials, wood, plastic, glass, metal, rock, objects and materials, melt and freeze, float or sink, does it absorb water, investigate materials)</p> <p><b>Seasonal Changes - Winter</b> (changes in winter, collect and record data)</p>	<p><b>Animals</b> (mammals, birds, fish, amphibians, reptiles, compare and group animals, carnivores, herbivores, omnivores)</p> <p><b>Caring for the Planet</b> (Why is it important to care for our planet? How can we care for our planet?)</p> <p><b>Seasonal Changes - Spring</b> (changes in spring, collect and record data)</p>	<p><b>Plants</b> (plant parts, tree parts, wildflowers and garden plants, plants in my local area, deciduous trees, evergreen trees, trees in my local area)</p> <p><b>Growing and Cooking</b> (Where does my food come from? What have I planted and grown this year? Can I cook with what I have grown?)</p> <p><b>Seasonal Changes - Summer</b> (changes in summer, collect and record data)</p>
<b>Year 2</b>	<p><b>Animals' Needs for Survival</b> (mammals, birds, fish, amphibians, reptiles, humans)</p> <p><b>Humans</b> (exercise, food, hygiene, teeth)</p>	<p><b>Plants (Light and Dark)</b> (explore plants, plant parts, what do plants need to grow, light and dark)</p> <p><b>Living Things and their Habitats</b></p>	<p><b>Plants (Bulbs and Seeds)</b> (bulb or seed, what do plants need to grow, bulbs and seeds)</p> <p><b>Growing Up</b></p>

	<p><b>Materials</b> (explore materials, wood, paper and cardboard, brick and rock, glass and plastic, metal, fabrics, same object, different material, test materials, bend, squash, twist and stretch, waterproof experiment)</p> <p><b>Plastic</b> (How is plastic helpful and harmful? How can we reduce our plastic waste in school?)</p>	<p>(habitats in the local area, polar habitats, desert habitats, ocean habitats, woodland habitats, microhabitats, habitats and diet, food chains, living, dead or never alive)</p>	<p>(mother and offspring, life cycle of humans, life cycles of different mammals, life cycle of amphibians, life cycle of a butterfly, are there patterns between the life cycles of different animals)</p> <p><b>Wildlife</b> (What does wildlife do for us? What can we do for wildlife?)</p>
<b>Year 3</b>	<p><b>Skeletons</b> (name and identify bones in the human body, functions of the skeleton, bones in a range of animals, animals with and without a spine, are all skeletons the same)</p> <p><b>Movement</b> (joints, how we move)</p> <p><b>Nutrition and Diet</b> (food groups, understand the five food groups, balanced diets, compare diets, animal diets)</p> <p><b>Food Waste</b> (What is food waste? How can reduce our food waste?)</p> <p><b>Rocks</b> (identify rocks, group rocks, test rocks, local rock survey)</p>	<p><b>Fossils</b> (explore fossils, fossil formation)</p> <p><b>Soils</b> (explore soil, the importance of soil, soil experiment)</p> <p><b>Light</b> (light sources, the Sun, how we see, shadows, opaque, translucent or transparent, shadow experiment)</p>	<p><b>Plants</b> (parts of a plant and their functions, plant dissection, growing experiment, the stem and water transportation, looking at seeds, reproductive parts in plants, pollination, seed dispersal, life cycle of plants, plant growth)</p> <p><b>Forces</b> (explore forces, friction, friction experiment)</p> <p><b>Magnets</b> (magnets, magnetic and non-magnetic materials, investigate materials, north and south poles, attract and repel)</p> <p><b>Biodiversity</b> (What is biodiversity? How can we increase biodiversity in our local area?)</p>
<b>Year 4</b>	<p><b>Group and Classify Living Things</b> (group animals, vertebrates and invertebrates, classification keys, group plants)</p> <p><b>Biology</b> (data collection A)</p> <p><b>States of Matter</b> (solids, liquids, gases, changing states, measure temperature changes, the water cycle, evaporation)</p>	<p><b>Sound</b> (vibrations, the ear, investigate sounds, explore volume and pitch)</p> <p><b>Biology</b> (data collection B)</p> <p><b>Electricity</b> (common appliances, build and draw series circuits, conductors and insulators, conductivity in circuits)</p> <p><b>Energy</b> (sustainability)</p>	<p><b>Biology</b> (data collection C)</p> <p><b>Habitats</b> (living things and their habitats, classification keys animals, classification keys plants, human impact)</p> <p><b>Deforestation</b> (sustainability)</p> <p><b>The Digestive System</b> (human teeth, layers of teeth, mouth and oesophagus, stomach and small intestine, large intestine and rectum)</p>

			<p><b>Food Chains</b> (what is a food chain, interpret food chains, draw food chains)</p>
<b>Year 5</b>	<p><b>Forces</b> (friction, air resistance, parachute experiment, water resistance experiment, explore gravity, use small forces for greater effects)</p> <p><b>Space</b> (the solar system, planets, modelling, motion of the Earth and planets, planet Earth, the solar system – ideas over time, night and day, the Moon)</p> <p><b>Global Warming</b> (What is the impact of global warming? What is the impact on living things?)</p>	<p><b>Properties of Materials</b> (magnetic, transparency, hardness, electrical conductivity, insulating heat experiment, uses of everyday materials – plastic, wood and metal)</p> <p><b>Animals Including Humans</b> (the human life cycle, babies and children, adolescence and puberty, adults and the elderly, gestation periods of mammals, gestation periods and lifespan)</p> <p><b>Life Cycles</b> (life cycles of mammals, life cycles of amphibians, life cycles of insects, life cycles of frogs)</p>	<p><b>Reproduction A</b> (sexual reproduction in animals, reproductive parts in plants, pollination, asexual reproduction, cloning plants)</p> <p><b>Reversible and Irreversible Changes</b> (dissolving, separate materials, filtering and sieving, solutions and evaporation, reversible changes, irreversible changes)</p> <p><b>Plastic Pollution</b> (What is plastic pollution and what are the impacts on the planet?)</p>
<b>Year 6</b>	<p><b>Living Things and their Habitats</b> (conditions for life, group organisms, classify animals, classify plants, microorganisms, classify microorganisms, Carl Linnaeus)</p> <p><b>Electricity</b> (construct and draw series circuits using symbols, complete and incomplete circuits, variations within circuits, voltage experiment)</p> <p><b>Renewable Energy</b> (What is renewable energy? Using renewable energy)</p>	<p><b>Light</b> (how we see, light and straight lines, shadow formation, shadow experiment, refraction, explore light)</p> <p><b>Light Pollution</b> (What is light pollution? How can we reduce light pollution?)</p> <p><b>The Circulatory System</b> (the circulatory system, blood, the heart, blood flow in the heart, oxygenated and deoxygenated blood, dissection of the heart)</p> <p><b>Diet, Drugs and Lifestyle</b> (diet, drugs, cigarettes, heart rate experiment)</p>	<p><b>Variation</b> (variation, characteristics)</p> <p><b>Adaptations</b> (animal adaptations, plant adaptations, evolution, Charles Darwin, natural selection, Darwin's finches, how plants and animals evolve over time too adapt to their environments)</p> <p><b>Fossils</b> (fossil formation, compare fossils, explore fossils, Mary Anning)</p>