

Year 2 Science Progression Map

	<u>Autumn 1</u>	
Topic	Materials - Properties	
Unit Aim	Identify and name common materials such as wood, metal, plastic, glass, brick, rock, paper, and cardboard. Describe the properties of these materials (for example: hard/soft, stretchy, waterproof, rough/smooth). Compare materials based on their properties. Explore how materials can change shape, such as bending, twisting, stretching, or squashing.	
Prior Learning	Objects are made from different materials like wood, plastic, and metal. Describe simple properties (hard, soft, shiny) and sort materials into groups.	
Knowledge	<u>Essential Knowledge</u>	<u>Working Scientifically</u>
	Name and describe materials Name and describe the properties of materials Compare the suitability of materials Find out how shape of materials can be changed Identify recyclable materials Identify inventors and their inventions	Explain findings Draw labelled investigations Make simple predictions Guided planning decisions Explore the world and ask questions
Vocabulary	soft, hard, rough, smooth, stretchy, stiff, shiny, dull, rough, smooth, flexible, waterproof, absorbent, opaque, transparent, translucent	
Future Learning	Compare materials in more detail and test their properties (e.g. hardness, transparency, conductivity). Explore how materials change (like melting, dissolving) and why they are used for specific purposes.	
KS1 End Point	To investigate different materials in the world around us.	

	Autumn 2	
Topic	Materials - Investigations	
Unit Aim	Understand suitability—why certain materials are used for specific purposes (e.g., why a raincoat is made from waterproof material).	
Prior Learning	Objects are made from different materials like wood, plastic, and metal. Describe simple properties (hard, soft, shiny) and sort materials into groups.	
Knowledge	<u>Essential Knowledge</u>	<u>Working Scientifically</u>
	Name and describe materials Name and describe the properties of materials Compare the suitability of materials Find out how shape of materials can be changed Identify recyclable materials Identify inventors and their inventions	Explain findings Draw labelled investigations Make simple predictions Guided planning decisions Explore the world and ask questions
Vocabulary	soft, hard, rough, smooth, stretchy, stiff, shiny, dull, rough, smooth, flexible, waterproof, absorbent, opaque, transparent, translucent	
Future Learning	Compare materials in more detail and test their properties (e.g. hardness, transparency, conductivity). Explore how materials change (like melting, dissolving) and why they are used for specific purposes.	
KS1 End Point	To investigate different materials in the world around us.	

	<u>Spring 1</u>	
Topic	Animals including Humans	
Unit Aim	Understand basic needs of animals and humans for survival, such as food, water, air, and exercise. Learn to describe how humans grow and stay healthy, including the importance of diet, hygiene, and exercise.	
Prior Learning	Living things grow and change over time, and can notice simple stages (baby to adult).	
Knowledge	<u>Essential Knowledge</u>	<u>Working Scientifically</u>
	Identify what animals need to live Identify how animals change as they grow Explain why humans need exercise and healthy diet Know what offspring come from which animal	Observe and describe how animals, including humans, grow and change over time. Compare differences between offspring and adult animals. Ask and answer questions about what animals and humans need to survive. Record observations using drawings, tables, and simple charts. Carry out simple tests or investigations Identify patterns in what helps animals and humans stay healthy.
Vocabulary	Reproduce, offspring, grow, adults, insect, mammal, humans, metamorphosis	
Future Learning	Compare life cycles of different animals in more detail, including mammals, amphibians, birds, and insects. Explore human development and reproduction, and how living things change as they grow and age.	
KS1 End Point	To know how and why humans, animals and plants all grow healthily	

	Spring 2	
Topic	Habitats	
Unit Aim	Identify different habitats and the plants and animals that live in them. Learn to understand how living things depend on each other and are suited to their habitats.	
Prior Learning	Living things can be found in different habitats and they need basic things like food and water to survive	
Knowledge	<u>Essential Knowledge</u>	<u>Working Scientifically</u>
	Identify and name various plants and animals in their habitats, including microhabitats Describe how different habitats provide for the basic needs of different kinds of animals	Observe and describe different habitats and the plants and animals that live there. Compare how living things are suited to different habitats. Ask and answer questions about how habitats provide food, water, shelter, and safety. Record observations using drawings, labels, tables, and simple charts. Carry out simple investigations Identify patterns in where living things are found and how they depend on their habitat.
Vocabulary	habitats, micro-habitats, food, alive, seashore, hedgerow, woodland, ocean, rainforest, pond, arctic, desert, conditions, air, water, shelter, heat, warmth, sun	
Future Learning	Identify and compare different habitats and how living things are adapted to them. Explore food chains and the interdependence of plants and animals within ecosystems.	
KS1 End Point	To know how and why humans, animals and plants all grow healthily	

	<u>Summer 1</u>	
Topic	Plants	
Unit Aim	Understand what plants need to grow and stay healthy, including water, light, and suitable conditions. Learn to observe and describe how seeds and bulbs grow into plants.	
Prior Learning	Name common plants and their basic parts (roots, stem, leaves, flowers). Understand that plants need water, light, and suitable conditions to grow and stay healthy.	
Knowledge	<u>Essential Knowledge</u>	<u>Working Scientifically</u>
	Observe and describe seeds Know what plants need to grow and stay healthy Identify that fruit, vegetables and herbs are parts of a plant that we eat Understand the lifecycle of a plant	Observe and describe how seeds and bulbs grow into mature plants. Set up simple comparative tests Make careful observations of plants using diagrams and simple scientific language. Record findings using tables, drawings, and simple charts. Ask and answer questions about how plants grow and what they need to stay healthy. Notice changes over time and describe patterns in plant growth.
Vocabulary	alive, damp, dead, flower, fruit, healthy, leaves, plant, shade, spiky, stem, bulb, compare, conditions, investigate, living, prediction, roots, seed, sheltered, germinate, shoot	
Future Learning	Identify parts of plants and explain their functions Explore plant life cycles and what plants need to grow, including reproduction and pollination	
KS1 End Point	To know how and why humans, animals and plants all grow healthily	

	<u>Summer 2</u>	
Topic	Seasonal Changes	
Unit Aim	To observe and describe seasonal changes across the year, including changes in weather, daylight, and the natural environment, and to understand how these changes affect plants, animals, and human activity.	
Prior Learning	Recognise basic weather conditions (e.g., sunny, rainy, windy, snowy) and notice simple changes in their daily environment	
Knowledge	<u>Essential Knowledge</u>	<u>Working Scientifically</u>
	Describe how seasons follow a pattern Describe how animals survive in different seasons Describe how plants and animals are affected by the seasons	Observe and describe changes across the four seasons. Compare weather, daylight, and temperature in different seasons. Ask and answer questions about how seasons affect plants, animals, and people. Record observations using tables, charts, and simple drawings. Carry out simple weather observations over time. Identify patterns in seasonal changes throughout the year.
Vocabulary	Rest, move, change, growth, pattern, cycle, stay alive, living things, tilt, survive, shelter, hibernate, migrate, adapt, prediction, deciduous, daylight, sunrise, sunset	
Future Learning	Earth's tilt causes seasons and linking this to changes in weather, daylight, and temperature	
KS1 End Point	Observe and describe the four seasons, notice changes in weather and daylight throughout the year, and explain how these changes affect plants, animals, and people.	