



Science – Progression of Knowledge and Skills

Resilience

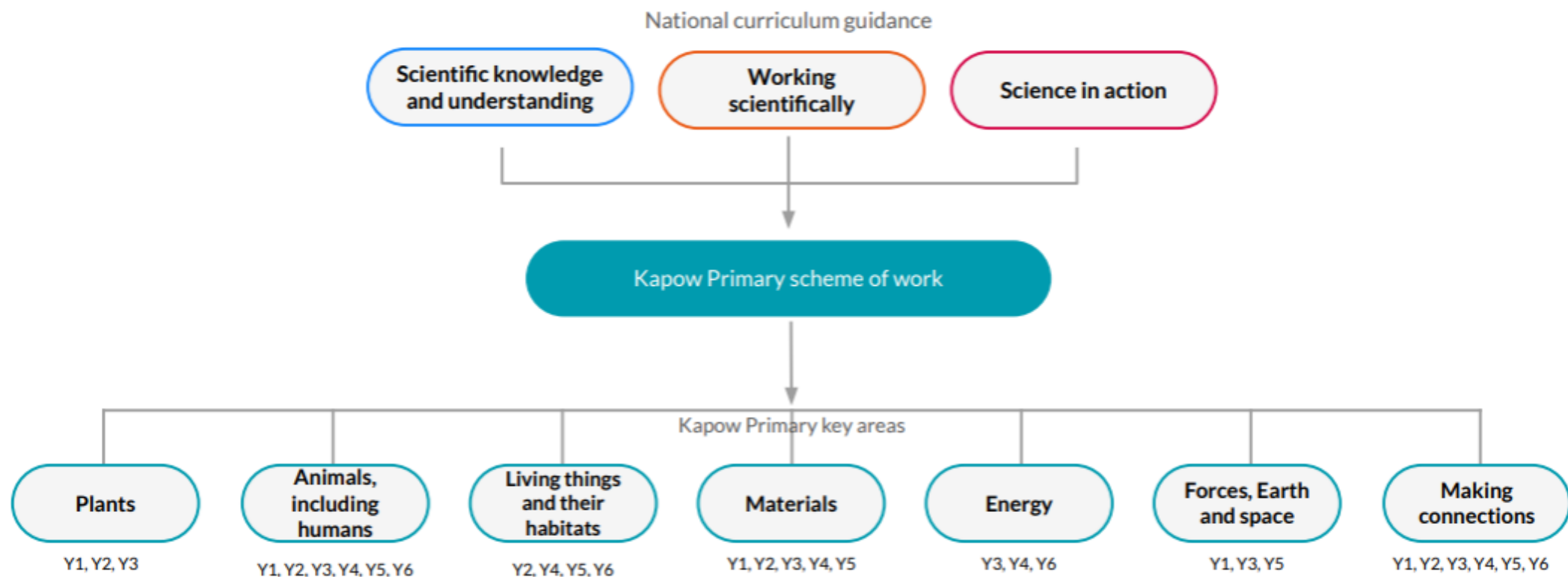
Curiosity

Respectfulness

Creativity

Independence

Confidence



*National Curriculum statements in red are from other linked topics.

<i>Plants</i>	
Birth to three	• Explore natural materials, indoors and outside.
Nursery	• Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things.
Reception	• Draw information from a simple map. (Reception – Living things and their habitats) • Explore the natural world around them. (Reception – Living things and their habitats) • Describe what they see, hear and feel whilst outside. (Reception – Living things and their habitats) • Recognise some environments that are different to the one in which they live. (Reception – Living things and their habitats) • Understand the effect of changing seasons on the natural world around them. (Reception – Seasonal changes)
Year 1	• Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. • Identify and describe the basic structure of a variety of common flowering plants, including trees.
Year 2	• Observe and describe how seeds and bulbs grow into mature plants. • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. • Identify and name a variety of plants and animals in their habitats, including microhabitats. (Y2 - Living things and their habitats)

Living things and their habitats

Birth to three	• Explore natural materials, indoors and outside.
Nursery	• Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Begin to understand the need to respect and care for the natural environment and all living things.
Reception	• Draw information from a simple map. • Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Recognise some environments that are different to the one in which they live.
Year 1	• Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants) • Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants) • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans) • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans) • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 – Animals, including humans) • Observe changes across the four seasons. (Y1 - Seasonal change)
Year 2	• Explore and compare the differences between things that are living, dead, and things that have never been alive. • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. • Identify and name a variety of plants and animals in their habitats, including microhabitats. • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. • Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals including humans)

Animals, including humans

Birth to three	• Explore natural materials, indoors and outside. • Make connections between the features of their family and other families. • Notice differences between people.
Nursery	• Use all their senses in hands-on exploration of natural materials. • Begin to make sense of their own life-story and family's history. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things.
Reception	• Talk about members of their immediate family and community. • Name and describe people who are familiar to them. • Recognise some environments that are different to the one in which they live.
Year 1	• Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
Year 2	• Notice that animals, including humans, have offspring which grow into adults. • Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. (Y2 - Living things and their habitats)

Evolution and inheritance

Birth to three	• Make connections between the features of their family and other families. • Notice differences between people.
Nursery	• Begin to understand the need to respect and care for the natural environment and all living things. (Nursery – Living things and their habitats)
Reception	• Recognise some environments that are different to the one in which they live. (Reception – Living things and their habitats)
Year 1	
Year 2	• Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. (Y2 - Living things and their habitats) • Notice that animals, including humans, have offspring which grow into adults. (Y2 - Animals, including humans)

Seasonal changes

Birth to three	•
Nursery	• Understand the key features of the life cycle of a plant and an animal. (Nursery – Plants & Animals, excluding humans)
Reception	• Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Understand the effect of changing seasons on the natural world around them.
Year 1	• Observe changes across the four seasons. • Observe and describe weather associated with the seasons and how day length varies.
Year 2	

Materials

Birth to three	- Explore materials with different properties. - Explore natural materials, indoors and outside.
Nursery	- Use all their senses in hands-on exploration of natural materials. - Explore collections of materials with similar and/or different properties. - Talk about the differences between materials and changes they notice.
Reception	- Explore the natural world around them. - Describe what they see, hear and feel whilst outside.
Year 1	- Distinguish between an object and the material from which it is made. - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. - Describe the simple physical properties of a variety of everyday materials. - Compare and group together a variety of everyday materials on the basis of their simple physical properties.
Year 2	- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Rocks

Birth to three	- Explore materials with different properties. - Explore natural materials, indoors and outside.
Nursery	- Use all their senses in hands-on exploration of natural materials. (Nursery – Living things and their habitats) - Explore collections of materials with similar and/or different properties. (Nursery – Living things and their habitats)
Reception	- Explore the natural world around them. (Reception – Living things and their habitats) - Describe what they see, hear and feel whilst outside. (Reception – Living things and their habitats)
Year 1	- Distinguish between an object and the material from which it is made. (Y1 - Everyday materials) - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials) - Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials) - Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)
Year 2	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of everyday materials)

Light

Birth to three	Repeat actions that have an effect.
Nursery	- Explore how things work. - Talk about the differences in materials and changes they notice.
Reception	Describe what they see, hear and feel whilst outside.
Year 1	- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans) - Describe the simple physical properties of a variety of everyday materials. (Y1 - Materials)
Year 2	

Forces

Birth to three	Repeat actions that have an effect.
Nursery	- Explore how things work. - Explore and talk about different forces they can feel. - Talk about the differences between materials and changes they notice.
Reception	- Explore the natural world around them. - Describe what they see, hear and feel whilst outside.
Year 1	
Year 2	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Uses of everyday materials)

Sound

Birth to three	Repeat actions that have an effect.
Nursery	Explore how things work.
Reception	Describe what they see, hear and feel whilst outside.
Year 1	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)
Year 2	

Electricity

Birth to three	• Repeat actions that have an effect.
Nursery	• Explore how things work.
Reception	
Year 1	
Year 2	

Earth and space

Birth to three	• Explore and respond to different natural phenomena in their setting and on trips.
Nursery	
Reception	• Explore the natural world around them. • Describe what they see, hear and feel whilst outside.
Year 1	• Observe changes across the four seasons. (Y1 – Seasonal changes) • Observe and describe weather associated with the seasons and how day length varies. (Y1 – Seasonal changes)
Year 2	