

Excellence and Enjoyment, Everyone and Everything. "God created you to be amazing" Ephesians 2:10

Year 2	Science Long Term Overview					
	Autumn 1 Living things and their habitats	Autumn 2 Animals including humans	Spring 1 Animals including humans	Spring 2 Materials	Summer 1 Plants	Summer 2 Living things and their habitats
Unit of work Driving Question	Are all habitats the same?	What do animals and humans need to survive?		How can materials be changed?	What do plants need to grow?	What is a food chain?
Values	Friendship and Love		Respect and responsibility		Perseverance and Hope	
Link to NC programme of study	<p>explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>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</p> <p>identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>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.</p>	<p>notice that animals, including humans, have offspring which grow into adults</p> <p>find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p>	<p>identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p>observe and describe how seeds and bulbs grow into mature plants</p> <p>find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p>	<p>explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>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</p> <p>identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>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.</p>	

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<p>What we need to know Red Hill Riches</p>	<p>Things can be classified as living, dead, and things that have never been alive. Living things move, grow, consume nutrients and reproduce. Habitats are places where creatures live to provide food and shelter. It provides the basic needs of animals and plants. Micro-habitats are a small area that differ from the surrounding areas. Most living things live in habitats to which they are suited.</p>	<p>Animals, including humans, have offspring which grow into adults. Lifecycles include birth, young and adult hood. Birds, fish and reptiles lay eggs. Mammals give birth to their live young. Animals reproduce. The basic needs of animals for survival include water, food and air. Exercise and eating the right amounts of different types of food is important for humans. Basic food groups include carbohydrates, fats, protein, dairy and fruits and vegetables. Exercise positively impacts on the heart and body. It is important for humans to have good hygiene.</p>	<p>Different materials are suited to different jobs. Materials have properties that make them suitable or unsuitable for particular purposes. The shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Applying forces to objects can change their shape, by squeezing, stretching, bending and twisting.</p>	<p>Seeds and bulbs grow into mature plants. Plants need water, light and a suitable temperature to grow and stay healthy. Seeds, need water, oxygen and a proper temperature to germinate and grow. Plants change over time.</p>	<p>Animals obtain their food from plants and other animals. A simple food chain follows the direction of a food source. All animals have certain characteristics that are essential for keeping them alive and healthy. Carnivores eat a diet of meat herbivores eat a plant diet and omnivores eat meat and plants.</p>
<p>Links to prior knowledge (footprints)</p>	<p><i>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)</i></p> <ul style="list-style-type: none"> <i>Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)</i> <i>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans)</i> <i>Identify and name a variety of common animals that are carnivores, herbivores and</i> 	<p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans)</p> <ul style="list-style-type: none"> 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) 	<p>Distinguish between an object and the material from which it is made. (Y1 - Everyday materials)</p> <ul style="list-style-type: none"> 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) 	<p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)</p> <ul style="list-style-type: none"> Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants) 	<p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)</p> <ul style="list-style-type: none"> 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

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	<p>omnivores. (Y1 - Animals including humans)</p> <ul style="list-style-type: none"> 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 changes) 				<p>omnivores. (Y1 - Animals including humans)</p> <ul style="list-style-type: none"> 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 changes)
Vocabulary	<p>living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed, water, air, survive, survival, names of local habitats (e.g. pond, woodland etc.), names of micro-habitats (e.g. under logs, in bushes etc.), conditions, light, dark, shady, sunny, wet, damp, dry, hot, cold, names of living things in the habitats and microhabitats studied</p>	<p>offspring, reproduction, growth, baby, toddler, child, teenager, adult, old person, names of animals and their babies (e.g. chick/hen, kitten/cat, caterpillar/butterfly), survive, survival, water food, air, exercise, heartbeat, breathing, hygiene, germs, disease, food types (e.g. meat, fish, vegetables, bread, rice, pasta, dairy)</p>	<p>ames of materials – wood, metal, plastic, glass, brick, rock, paper, cardboard Properties of materials – as for Year 1 plus opaque, transparent and translucent, reflective, nonreflective, flexible, rigid Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>	<p>light, shade, Sun, warm, cool, water, space, grow, healthy, bulb, germinate, shoot, seedling</p>	
Common Misconceptions	<p>Some children may think:</p> <ul style="list-style-type: none"> an animal's habitat is like its 'home' plants and seeds are not alive as they cannot be seen to move fire is living 	<p>Some children may think:</p> <ul style="list-style-type: none"> an animal's habitat is like its 'home' all animals that live in the sea are fish respiration is breathing breathing is respiration 	<p>Some children may think:</p> <ul style="list-style-type: none"> only fabrics are materials only building materials are materials only writing materials are materials the word rock describes an object rather than a material solid is another word for hard 	<p>Some children may think:</p> <ul style="list-style-type: none"> plants are not alive as they cannot be seen to move seeds are not alive all plants start out as seeds seeds and bulbs need sunlight to germinate 	<p>Some children may think:</p> <ul style="list-style-type: none"> arrows in a food chain mean 'eats'

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<p>Excellence</p> <p>Enjoyment</p> <p>Everyone</p> <p>Everything</p>	<p>Excellence-Recognise the significance of God's creatures and how they have adapted their habitats according to our world.</p> <p>Enjoyment- Enjoy going on bug hunts and exploring a variety of habitats</p> <p>Everyone-Everyone including God's creatures live in different habitats according to their needs</p> <p>Everything- know that different animals live in different habitats</p>	<p>Excellence-Recognise the miracle of humans and animals and the traits they inherit from their parents</p> <p>Enjoyment-Enjoy doing a variety of exercises to explore how the human body works.</p> <p>Everyone- Every body is different and our offspring is dependant on our parents. How can a variety of exercises be adapted to support the disabled?</p> <p>Everything- Know that exercise and a healthy lifestyle support human development and health</p>	<p>Excellence-Recognise the importance that different materials and their properties play in our lives</p> <p>Enjoyment-Enjoy exploring a variety of materials including bending and stretching</p> <p>Everyone-Everyone requires materials as part of object design to help us live a full life</p> <p>Everything- Know that different materials have a variety of properties</p>	<p>Excellence-Recognise the significance of God's plants and how they contribute to our ecosystem</p> <p>Enjoyment-Enjoy growing a variety of plants and watching them grow.</p> <p>Everyone-Everyone needs plants within our ecosystem to keep us alive.</p> <p>Everything-Know what plants need to grow.</p>	<p>Excellence-Recognise the importance of a food chain and where human beings sit within it</p> <p>Enjoyment-Enjoy exploring a range of animals and their food chain links</p> <p>Everyone-Everyone needs producers to survive in God's world</p> <p>Everything-Know how food chains are created</p>
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