



Science  
Year 2

	Animals including humans - Growth	Animals including humans –Life Cycles	Living Things and their habitats	Living Things and their habitats- Habitats around the world.	Plants	Everyday Materials
<b>Previous Learning</b>	<ul style="list-style-type: none"><li>• Identify and name a variety of common animals that are carnivores, herbivores and omnivores</li><li>• Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets.</li><li>• Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</li></ul>			<ul style="list-style-type: none"><li>• Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li></ul>	<ul style="list-style-type: none"><li>• Become familiar with common names of flowers and plant structures including seeds.</li><li>• Identify and describe the basic structure of a variety of common flowering plants, including trees</li><li>• Become familiar with common names of flowers and plant structures.</li><li>• Identify and name a variety of common wild and garden plants.</li><li>• Identify and name a variety of deciduous and evergreen trees.</li></ul>	<ul style="list-style-type: none"><li>• Distinguish between an object and the material from which it is made</li><li>• Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</li><li>• Describe the simple physical properties of a variety of everyday materials</li><li>• Compare and group together a variety of everyday materials on the basis of their simple physical properties</li></ul>

					<p>Understand how plants change over time</p> <ul style="list-style-type: none"> <li>• Observe the growth of planted flowers Become familiar with plant structures Keep records of how plants change over time</li> </ul>	<ul style="list-style-type: none"> <li>• Compare and group together a variety of everyday materials on the basis of their simple physical properties</li> <li>• Describe the simple physical properties of a variety of everyday materials</li> </ul>
<b>Substantive Knowledge</b>	<ul style="list-style-type: none"> <li>• Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</li> <li>• Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</li> </ul>	<ul style="list-style-type: none"> <li>• Notice that animals, including humans, have offspring which grow into adults</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and compare the differences between things that are living, dead, and things that have never been alive</li> <li>• Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and</li> <li>• Identify and name different sources of food</li> </ul>	<ul style="list-style-type: none"> <li>• 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</li> <li>• Identify and name a variety of plants and animals in their habitats, including microhabitats</li> </ul>	<ul style="list-style-type: none"> <li>• Observe and describe how seeds and bulbs into mature plants</li> <li>• Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</li> <li>• Understand the requirements of plants for germination, growth and survival, as well as, the processes of</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li> <li>• Find out how the shapes of solid objects made from some materials can be changed by squashing,</li> </ul>

			<ul style="list-style-type: none"> <li>Identify and name a variety of plants and animals in their habitats, including microhabitats</li> </ul>		reproduction and growth in plants	bending, twisting and stretching
<b>Disciplinary Knowledge</b>	<ul style="list-style-type: none"> <li>Perform simple tests</li> <li>Identify and classify</li> <li>Use their observations and ideas to suggest answers to questions</li> </ul>	<ul style="list-style-type: none"> <li>Use their observations and ideas to suggest answers to questions</li> <li>Identify and classify</li> <li>Gather and record data to help in answering questions</li> <li>Asking simple questions and recognise that they can be answered in different ways</li> </ul>	<ul style="list-style-type: none"> <li>Observe closely, using simple equipment</li> <li>Perform simple tests</li> <li>Identify and classify</li> <li>Use their observations and ideas to suggest answers to questions</li> <li>Asking simple questions and recognise that they can be answered in different ways</li> <li>Gather and record data to help in answering questions</li> </ul>	<ul style="list-style-type: none"> <li>Identify and classify</li> <li>Use their observations and ideas to suggest answers to questions</li> <li>7 Gather and record data to help in answering questions</li> <li>Asking simple questions and recognise that they can be answered in different ways</li> </ul>	<ul style="list-style-type: none"> <li>Identifying and classifying</li> <li>Observe closely, using simple equipment</li> <li>Asking simple questions and recognise that they can be answered in different ways.</li> <li>Perform simple tests</li> <li>Use their observations and ideas to suggest answers to question.</li> <li>Gather and record data to help in answering questions</li> </ul>	<ul style="list-style-type: none"> <li>Observe closely, using simple equipment</li> <li>Perform simple tests</li> <li>Gather and record data to help in answering questions</li> </ul>
<b>Vocabulary</b>	survival shelter nutrition oxygen essential	life cycle grow survive independent adult	<b>Living things and their habitats:</b> senses nutrition reproduce	<b>Habitats from around the world</b> habitat	seeds bulbs growth plant compare	material property suitable object brick

<p>vital non-essential survive grow healthy protein carbohydrate dairy vitamins calcium fat balanced diet nutrients fresh food pre-cooked processed food exercise strength flexibility balance coordination hygiene prevent germs bacteria virus</p>	<p>foetus womb helpless toddler develop offspring inherit gene resemble differences reproduction hatchling chick bar chart predict caterpillar transformation larva chrysalis metamorphosis frog amphibian frogspawn tadpole forget</p>	<p>excrete respire habitat microhabitat fungi survive shelter antennae suitable condition colony insect producer consumer herbivore carnivore omnivore food chain life cycle nutrients rot caterpillar automated frozen food forklift truck refrigerated lorry canned</p>	<p>microhabitat organism environment mate rainforest moisture extinct climate endangered biodiversity deforestation poaching pollution rainforest plankton ocean ecosystem coral reef trench Antarctic Arctic caribou narwhal tundra earthworm desert lizard cactus pond</p>	<p>predict investigate control experiment method photosynthesis carbon dioxide oxygen glucose energy pollination life cycle germination reproduction seedling manure crop insulate thrive healthy forest desert adapt condition survive</p>	<p>bridge triangle obstacle structure construction stretchy elastic floppy hinder limit bend twist squash stretch force mackintosh protective fluorescent safety waterproof</p>
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## Retrieval

Animals including humans – Growth– Term 1	
Week	Retrieval Practice Questions
1	Last week: n/a Last term: n/a Last year: sort the animals into carnivores, omnivores and herbivores.
2	Last week: What 4 things do animals need to survive? Last term: n/a Last year: What are the basic parts of the human body?
3	Last week: What do humans need to survive? Last term: n/a Last year: What are the 5 senses?
4	Last week: What are the 5 main food groups? Last term: n/a Last year: What seed belongs to which fruit?
5	Last week: Why is it important to eat the right types of food? Last term: n/a Last year: What part of the body relates to each sense?
6	Last week: Why is exercise important? What might happen if you do not exercise enough? Last term: n/a Last year: What can our bodies do?
WOW days / experiences	<ul style="list-style-type: none"> <li>• Visit from a doctor to talk about food/health/exercise</li> <li>• Create a real balanced meal</li> </ul>

**Animals including humans – Life Cycles– Term 2**

<b>Week</b>	<b>Retrieval Practice Questions</b>
<b>1</b>	Last week: n/a Last term: What do animals need to survive? Last year: Name the parts of the human body
<b>2</b>	Last week: What are the 5 main stages of the human life cycle? Last term: What are the needs of humans for survival? Last year: What do our eyes help us to do?
<b>3</b>	Last week: What stage of the human life cycle is between 13-19? Last term: Why is it important to eat the right food? Last year: How do our ears help us to hear?
<b>4</b>	Last week: Match the offspring to its parent Last term: What is a balanced diet? Last year: What does our mouth help us to do?
<b>5</b>	Last week: Sequence the stages of a chicken's life Last term: What is the impact of exercise on our bodies? Last year: Describe the sense of touch
<b>6</b>	Last week: What the stages of a butterfly life cycle? Last term: Why is hygiene important? Last year: How does our nose help us to smell?
<b>WOW days / experiences</b>	<ul style="list-style-type: none"> <li>• Hatch chicken eggs</li> <li>• Visit a farm</li> <li>• Have frogspawn in the classroom to observe the changes</li> <li>• Have real butterflies go through the life cycle in the classroom</li> </ul>

**Living Things and their habitats – Term 3**

<b>Week</b>	<b>Retrieval Practice Questions</b>
<b>1</b>	Last week: n/a Last term: What are the stages of the human life cycle? Last year: Name the everyday materials
<b>2</b>	Last week: What is the difference between something dead, something alive and something that has never been alive? Last term: What do babies do as they start to grow? Last year: Describe the properties of everyday materials
<b>3</b>	Last week: What is a microhabitat? Last term: Match the offspring to its parents. Last year: Sort the materials into natural and manmade
<b>4</b>	Last week: What are the different types of ant? Last term: Describe the life cycle of a chicken Last year: What objects sink and what objects float?
<b>5</b>	Last week: What do animals need to survive in their habitat? Last term: Describe the life cycle of a butterfly Last year: What objects are good for different purposes?
<b>6</b>	Last week: What is a food chain? Last term: Describe the life cycle of a frog Last year: Describe the properties of everyday materials.
<b>WOW days / experiences</b>	<ul style="list-style-type: none"> <li>• Ant farm</li> <li>• Wormery</li> </ul>

**Living Things and their habitats: Habitats around the world – Term 4**

<b>Week</b>	<b>Retrieval Practice Questions</b>
<b>1</b>	Last week: n/a Last term: What is the difference between living things, things that are dead and things that have never been alive? Last year: What materials are strong enough to withstand wind and why?
<b>2</b>	Last week: Explain what a habitat is. Last term: Name 3 plants. Last year: Name a waterproof material
<b>3</b>	Last week: What can you do to care for a habitat? Last term: What 3 things would a good microhabitat have? Last year: Name a property of glass.
<b>4</b>	Last week: Name an animal that lives in the ocean. Last term: Name an animal and what it eats to survive in its habitat. Last year: What materials are used to make furniture?
<b>5</b>	Last week: What can harm the sea? Last term: Draw a food chain. Last year: What are the properties of fabrics?
<b>6</b>	Last week: What is the difference between the Arctic and Antarctic habitats? Last term: How does food get to the supermarket? Last year: Name a material and what it is used for.
<b>WOW days / experiences</b>	<ul style="list-style-type: none"> <li>• Water treatment works.</li> <li>• Environment agency visitor.</li> </ul>

**Plants – Term 5**

<b>Week</b>	<b>Retrieval Practice Questions</b>
<b>1</b>	Last week: n/a Last term: What is a habitat? Last year: What do seeds grow into?
<b>2</b>	Last week: What is the difference between a seed and a bulb? Last term: What impact do humans have on the environment? Last year: Label the parts of a plant.
<b>3</b>	Last week: What experiment could you do to find out what plants need to grow and stay healthy? Last term: Name 3 animals that live in the ocean. Last year: Name one wild and one garden plant.
<b>4</b>	Last week: What do plants need to grow and stay healthy? Last term: What is the impact of over fishing? Last year: Name an evergreen and a deciduous tree.
<b>5</b>	Last week: Describe the life cycle of a plant. Last term: Name an animal that lives in the Arctic and an animal that lives in the Antarctic. Last year: What makes a fruit a fruit?
<b>6</b>	Last week: Describe how a seed changes over time. Last term: Describe a desert habitat. Last year: Describe how plants change over time.
<b>WOW days / experiences</b>	

Materials – Term 6	
Week	Retrieval Practice Questions
1	Last week: n/a Last term: What is the difference between a seed and a bulb? Last year: Name the 4 seasons.
2	Last week: Name one material and what it is used for. Last term: What do plants need to grow? Last year: Describe what happens to trees in the Autumn.
3	Last week: What material would you make a bridge from and why? Last term: What happens to a plant if there is no sunlight? Last year: Describe the weather in winter.
4	Last week: What are the different ways of changing the shape of a material? Last term: What is germination? Last year: Describe one change that happens in spring.
5	Last week: Describe a material that can change shape, explaining how it changes shape. Last term: What happens to plants over time in the right conditions? Last year: Describe the clothing you would wear in the summer and why.
6	Last week: Who was Charles Macintosh? Last term: How do plants adapt to suit their environments? Last year: Describe how you can measure rainfall.
WOW days / experiences	<ul style="list-style-type: none"> <li>• Visitor that makes tarmac</li> </ul>