







Science Curriculum Overview

Year 2

Term	Science Topic	Knowledge and understanding	Scientific Enquiry Skills	What I will know and remember
1	Animals including humans	<p>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.</p>	<p>Sort and classify objects (animals) into simple groups. Use scientific language to talk about their findings. Notice patterns and relationships between the groups. Use simple secondary sources to find answers to a question and talk about their findings to an audience. Ask simple scientific questions and use scientific language to answer them. Carry out simple practical tests and use their observations and ideas to suggest answers to questions. Carry out simple practical tests, make careful observations and draw simple conclusions.</p>	<p>I can identify and group young animals and their adults.  I can observe how animals change as they grow into adults.  I can compare the stages of the human life cycle.  I can research and describe what animals, including humans, need to survive.  I can test the effects of exercise on the human body.  I can research the importance of healthy eating and hygiene. </p>





Vocabulary

- Being born and growing: Young, offspring, live young, grow, develop, change, hatch, lay, fly, crawl, talk.
- Young and adult names: e.g. lamb and sheep, kitten and cat, duckling and duck.
- Life cycle stages: e.g. baby, toddler, child, teenager, adult; frogspawn, tadpole, froglet, frog.
- Survival and staying healthy: basic needs, survive, food, air, exercise, diet, nutrition, healthy, balanced diet, hygiene, germs.
- Food groups: fruit and vegetables, proteins, dairy and alternatives, carbohydrates, oil and spreads, fat, salt, sugar.
Previously introduced vocabulary: water.

Working towards

End of unit assessment
Working at

Working above

Term	Science Topic	Knowledge and understanding	Scientific Enquiry Skills	What I will know and remember
2	Living things and their habitats	<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</p>	<p>Use their observations and ideas to suggest answers to questions.</p> <p>Identify and classify, and sort objects into categories.</p> <p>Gather and record data to help in answering questions.</p> <p>Ask simple questions and recognise that they can be answered in different ways.</p>	<p>I can compare the differences between things that are living, dead and have never been alive.</p>  <p>I can research things that are living, dead or have never been alive.</p>  <p>I can map a habitat and identify what is in it.</p>  <p>I can classify objects as those that are living, dead and those that have never been alive.</p> 

animals, using the idea of a simple food chain, and identify and name different sources of food.

I can **identify** animals in their habitats.



I can use information I have **researched** to answer a question.



I can describe a habitat and **identify** animals that live in it.



I can ask and answer questions about habitats.



I can **identify** how an animal is suited to its habitat.



I can **research** how living things in a habitat depend on each other.










I can **research** how animals get their food.



Vocabulary

- Living or dead: living, dead, never living, not living, alive, never been alive, healthy.
- Habitats including microhabitats: depend, shelter, safety, survive, suited, space, minibeast, air.
- Life processes: movement, sensitivity, growth, reproduction, nutrition, excretion, respiration.
- Food chains: food sources, food, producer, consumer, predator, prey.
- Names of habitats and microhabitats: e.g. under leaves, woodland, rainforest, sea shore, ocean, urban, local habitat.

Previously introduced vocabulary: senses, carnivore, herbivore, omnivore, seed, water, names of materials.

<u>End of unit assessment</u>				
<u>Working towards</u>		<u>Working at</u>		<u>Working above</u>
Term	Science Topic	Knowledge and understanding	Scientific Enquiry Skills	What I will know and remember
3	Uses of everyday materials	<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>Identify and classify the uses of everyday materials, in the context of the local area. Gather and record data to help in answering questions, by exploring the purposes of different objects.</p> <p><i>Ogden Trust Resource : Phizzi Earth and Space : Enquiry B - Keeping Warm in Space</i></p> <p><i>Ogden Trust Resource : Phizzi Light and Sound : Investigation B - Curtains</i></p> <p><i>Ogden Trust Resource : Phizzi Forces : Enquiry B - Floating and Sinking</i></p> <p><i>Ogden Trust Resource : Phizzi Electricity in KS1: Static Butterflies</i></p> <p><i>Ogden Trust Resource : Phizzi Electricity in KS1: Close the Gap</i></p>	<p>I can identify uses of different everyday materials.</p>  <p>I can identify and group the uses of everyday materials.</p>  <p>I can record my observations.</p>  <p>I can compare the suitability of different everyday materials.</p>  <p>I can compare how the shapes of objects made from some materials can be changed.</p>  <p>I can research the process of recycling.</p>  <p>I can research the inventor John McAdam.</p> 







Vocabulary


- Changing shape: squash, bend, twist, stretch.
- Properties of materials: e.g. strong, flexible, light, hard-wearing, elastic.
- Other: suitability, recycle, pollution.

Working towards

End of unit assessment
Working at

Working above

Term	Science Topic	Knowledge and understanding	Scientific Enquiry Skills	What I will know and remember
4	Plants	<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>Perform simple tests.</p> <p>Use their observations and ideas to suggest answers to questions.</p> <p>Observe closely, using simple equipment.</p> <p>Use their observations and ideas to suggest answers to questions.</p>	<p>I can design and set up a test to find out what plants need to stay healthy.</p>  <p>I can observe the parts of a seed that will grow into a plant and observe how it will germinate.</p>  <p>I can observe the life cycle of a plant.</p>  <p>I can research and observe what plants need to grow and stay healthy.</p>   <p>I can observe what happens if plants don't get all the things they need.</p> 



				I can research how plants are suited to their habitats. 
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Vocabulary

- Growth of plants: germination, shoot, seed dispersal, grow, food store, life cycle, die, wilt, seedling, sapling.
- Needs of plants: sunlight, nutrition, light, healthy, space, air.
- Name different types of plant: e.g. bean plant, cactus.
- Names of different habitats: e.g. rainforest, desert.

Previously introduced vocabulary: water, temperature, warm, hot, cold, habitat.

<u>Working towards</u>	<u>End of unit assessment</u> <u>Working at</u>	<u>Working above</u>
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Term	Science Topic	Knowledge and understanding	Scientific Enquiry Skills	What I will know and remember
5	Biodiversity - minibeasts	Identify and name a variety of plants and animals in their habitats, including microhabitats. Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 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	Gather and record data to help in answering questions. Use their observations and ideas to suggest answers to questions. Observe closely, using simple equipment. Ask simple questions and recognise that they can be answered in different ways. Gather and record data to help in answering questions. Use their observations and ideas to suggest answers to questions.	I can identify and name a variety of minibeasts and their habitats.  I can research the importance of bees and pollination.  I can research minibeasts and explain their importance.

		<p>kinds of animals and plants, and how they depend on each other. Find out about and describe the basic needs of animals including humans, for survival (water, food and air).</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>I can research how a microhabitat is suitable for a minibeast.</p>  <p>I can research the importance of worms for healthy soil.</p>  <p>I can research the importance and needs of minibeasts and microhabitats.</p> 
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Vocabulary

Recap of vocabulary taught across the year so far.


Minibeasts, invertebrate, decomposer, predator minibeast, carnivore and omnivore minibeast, pollinator, pollination, habitat, microhabitat.

Working towards

End of unit assessment

Working at

Working above

Term	Science Topic	Knowledge and understanding	Scientific Enquiry Skills	What I will know and remember
6	Scientists and inventors	Find out how plants need water, light and a suitable temperature to grow and stay healthy. Identify and describe the basic structure of common flowering	Observe closely using simple equipment. Use their observations and ideas to suggest answers to questions. Perform simple tests.	<p>I can research how greenhouses help plants grow healthily.</p>  <p>I can observe whether plants grow best inside or</p>

plants by observing and sketching a range of common plants.
Describe the importance for humans of exercise, of eating the right amounts of different types of food, and hygiene.
Identify and compare the suitability of a variety of everyday materials for particular uses.
Describe how animals obtain their food from plants and other animals.

outside of a greenhouse.



I can **identify** different parts of plants.
I can use a magnifying glass to help me draw different parts of plants.



I can use my own **observations** to explain how doctors use science.



I can **research and observe** what is important in order to stay healthy.



I can **research** Louis Pasteur's life and work.



I can **research** why we wash our hands.



I can **research** Charles Macintosh and his famous invention.



I can **compare** the most suitable fabric for a particular use.



I can **research** what Rachel Carson learnt about ocean habitats.



I can **research** Rachel Carson's findings on water pollution.



				I can research the invention of wind turbines. 
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Vocabulary

Recap of vocabulary taught across the year.
 Greenhouse, light, water, temperature, plant, horticulturist, biome, Eden
 Project, tall, shoot
 Botanist, plant, leaf, flower, stem,
 observe, illustrate, sketch
 Doctor, science, surgery, healthy, exercise, diet,
 hygiene, clean
 Louis Pasteur, germs, handwashing,
 spread, disease, illness
 Macintosh, waterproof,
 raincoat, properties, fabric
 Ocean, habitat, food chain, chemicals, pesticide, pollution
 Energy, power, renewable, non-
 renewable, turbine, wind.

<u>Working towards</u>	<u>End of unit assessment</u> <u>Working at</u>	<u>Working above</u>
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