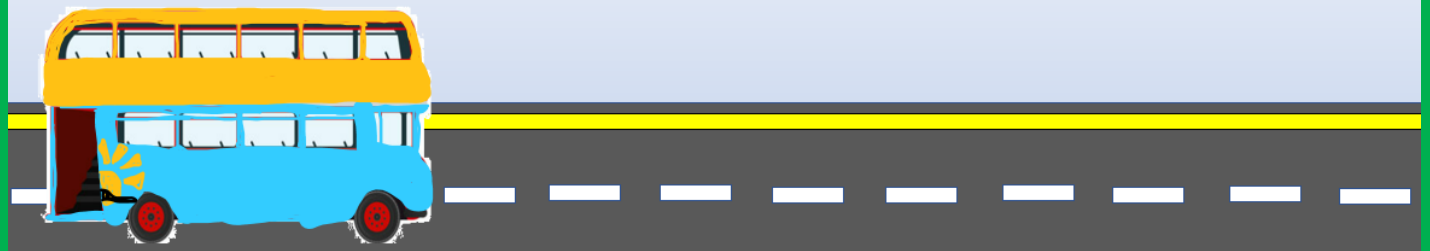
Year 2 Autumn 1

How do living things help each other stay alive?

Key Question 1
How can I decide if something is a living thing?

Key Question 3
What is a food chain?

Key Question 5
What is a microhabitat?



Key Question 2
Do plants really breathe, move and have babies?

Key Question 4
What is a habitat?

Key Question 6
(Field trip)
What micro habitats can we find in the woods and on the beach and what organism live in them?

In this unit children will		
Key question	Substantive knowledge Learning fundamental facts, concepts, and principles across various scientific topics relevant to young learners. This includes understanding basic concepts such as the properties of materials, characteristics of living things, and simple scientific processes like the lifecycle of plants and animals.	Disciplinary knowledge Introducing the methods, practices, and principles of scientific inquiry. This includes developing skills such as observation, prediction, measurement, and experimentation in a hands-on and age-appropriate manner. Through disciplinary knowledge, children learn how to think like scientists and engage with the natural world around them in a systematic and investigative way.
1	• Know that the world is made up of things that are living and not living (non-living). • Know that living things grow • Know that living things need food • Know that living things move • Know that living things breathe • Know that living things reproduce • Children will know the difference between non – living (has never been alive) and dead • Know that a living thing is called an organism	• Develop their classification skills by designing a poster that illustrate the key characteristics of living things
Key Vocab	Living non -living characteristics classification reproduce respirate grow food photosynthesis organisms	
2	• Children will know that plants move and will know someways in which they do this • Children will know that plants' breath' and will know the correct term for this – respiration • Children will know term reproduce and will know that plants reproduce • Children will know the 5 main characteristics of living things	• Engage in scientific inquiry by watching educational and conducting experiments to explore plant movement, respiration, and reproduction • Design and set up experiments to investigate plant responses, - observing respiration of leaves underwater and testing plant growth towards light • Classify e a range of real-life objects and photographs into living non- living and dead using their posters from the previous lesson
Key Vocab	Respiration reproduces characteristics classify living non-living photosynthesis move grow food organism li	
3	• Know that a food chain is a sequence of organisms where each is a source of food for the next.	• Classify and order plants and animals into a simple food chain to demonstrate their interconnectedness. • Discuss and articulate the different roles played by plants and animals in a food chain
Key vocab	Organism food chain sequence food source interconnection	
4	• Know that habitat a is a place where living things, like plants and animals, make their homes. It provides everything they need to survive, such as food water, shelter, and space to grow. • Know that living things live in an environment to which they are suited • Know that an organism is a living thing • Know the characteristics of desert and rainforest habitats, including climate, vegetation, and animal adaptation	• Use their observational skills to examine pictures of various organisms and identifying the features that indicate their suitable habitats. • Apply their knowledge of habitat characteristics to classify organisms appropriately
Key vocab	Habitat organism living environment suited characteristics climate temperature adaptation food chain food source predator herbivore omnivore carnivore prey decompose	

5&6	• Know that a micro habitat is small habitat within a larger habitat that has everything in it that organisms that live there need to survive. • Know that a rock pool, a decaying log , dead leaves, under stones, grass are examples of microhabitats and know some organisms that live within these microhabitats	• Engage in observational skills by watching videos of microhabitats and examining real microhabitats in the school woodland and rock pools at the beach. • Record observations of microhabitats and the organisms found within them using simple data collection methods. • Gain an understanding of the diversity of microhabitats and the organisms that inhabit them.
Kay Vocab	Micro -habitat t organism living environment suited characteristics climate temperature adaptation food chain food source predator herbivore omnivore carnivore prey decompose record observe woodland rock pool data	

Year 2 Autumn 2

Why do we need different materials for different purposes?

Key Question 1
What materials should I use?

Key Question 3
Which material is the stretchiest?

Key Question 5
(2 lessons)
Which materials do we need to make indoor and outdoor Christmas decorations

Key Question 2
How can the shape of solid objects be changed?

Key Question 4
Which materials are absorbent?

In this unit children will		
Key question	Substantive knowledge Learning fundamental facts, concepts, and principles across various scientific topics relevant to young learners. This includes understanding basic concepts such as the properties of materials, characteristics of living things, and simple scientific processes like the lifecycle of plants and animals.	Disciplinary knowledge Introducing the methods, practices, and principles of scientific inquiry. This includes developing skills such as observation, prediction, measurement, and experimentation in a hands-on and age-appropriate manner. Through disciplinary knowledge, children learn how to think like scientists and engage with the natural world around them in a systematic and investigative way.
1	• Know and understanding the difference between objects and materials. • Know and understand the terms object, material, property, purpose • Identify materials and their properties -	• Exploring the properties of materials and how they determine their suitability for specific purpose • Apply knowledge of material properties to real-life situations to make informed decisions about material use.
Key vocab	Object material properties purpose suitability	
2	• Know that solid objects keep their shape no matter where you put them • Know that this differs from liquids and gasses • Know that solid objects can exhibit different properties such as hardness, flexibility, and resistance to change. • Know that you can change some solid objects by solid objects by squashing, bending, twisting, stretching and melting	• Use a scientific enquiry format including hypothesis prediction method equipment results conclusion • Design and conduct experiments to test the ability of solid objects to change shape under different conditions. • Engage in hands-on activities to test and analyse the properties of different objects,
Key vocab	Object material properties hypothesis prediction method equipment solid hardness flexibility squashing, bending, twisting, stretching resistance melting	
3	• Know the term elasticity • Know that elastic materials return to their original shape after being stretched and non-elastic ,materials do not	• Use a scientific enquiry format including hypothesis prediction method equipment results conclusion • Design and conduct experiments to compare the elasticity of a range of materials • Engage in hand in activities to assess the elasticity of a range of materials
Key vocab	Elastic non-elastic elasticity original hypothesis prediction method equipment results conclusion materials	
4	• Know the term absorbency • Know that absorbent materials easily soak up liquid. • Know about the practical applications of absorbent materials in everyday life, such as towels, sponges, and cotton wool	• Use a scientific enquiry format including hypothesis prediction method equipment results conclusion • Understand what a fair test is and use this in their scientific enquiry (all materials same size and have to absorb same quantity of liquid) • Design and conduct experiments to compare the absorbency of a range of materials • Engage in hand in activities to assess the absorbency of a range of materials
Key vocab	Absorbency absorbent liquid hypothesis prediction method equipment results conclusion materials	
5& 6	**Understanding Material Properties:** • Know the properties of materials that make them suitable for specific purposes (e.g., strength, waterproofness, weight). **Testing Materials**:	□ **Scientific Inquiry:** • Formulating hypotheses about material properties and their suitability for different decoration types.

	• Know how to test materials for different properties (e.g., strength of hanging materials, strength ,waterproof/ non waterproof)	• Conducting tests to gather data about materials, observing results, and making conclusions based on evidence. **Material Selection and Application:** • Applying knowledge of material properties to design and create decorations that meet specific criteria for indoor and outdoor use. • Making informed decisions about which materials and techniques to use for constructing their decorations. **Communicating Findings:** • Explaining and justifying the choices made during the decoration-making process based on scientific reasoning. • Engaging in discussions about the effectiveness of materials used and sharing observations with peers. •
Key vocab	Opaque, Transparent, Weather-resistant, Waterproof, Strength, Lightweight, Hypothesis, Properties, Testing, Materials, findings	

Key Question 1
How did a man who was born 200 years ago help stop Covid?

Key Question 2
Who was Jane Goodall?

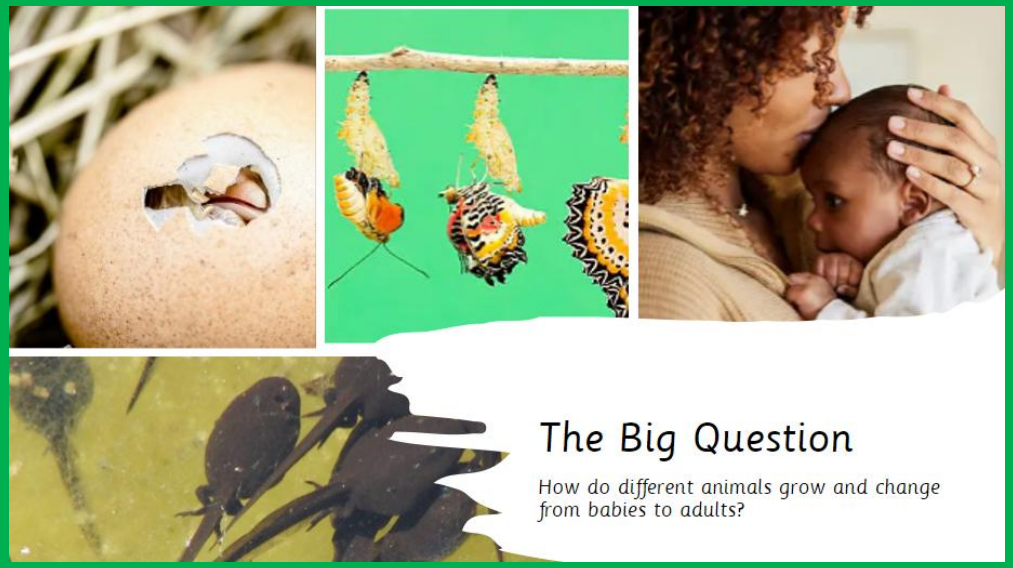
Key Question 3
Who was Charles Mackintosh and how did he change our lives?

Key Question 4
How have scientists used wind help to save our planet?

Key Question 5
How did Rachel Carson help to save our oceans?

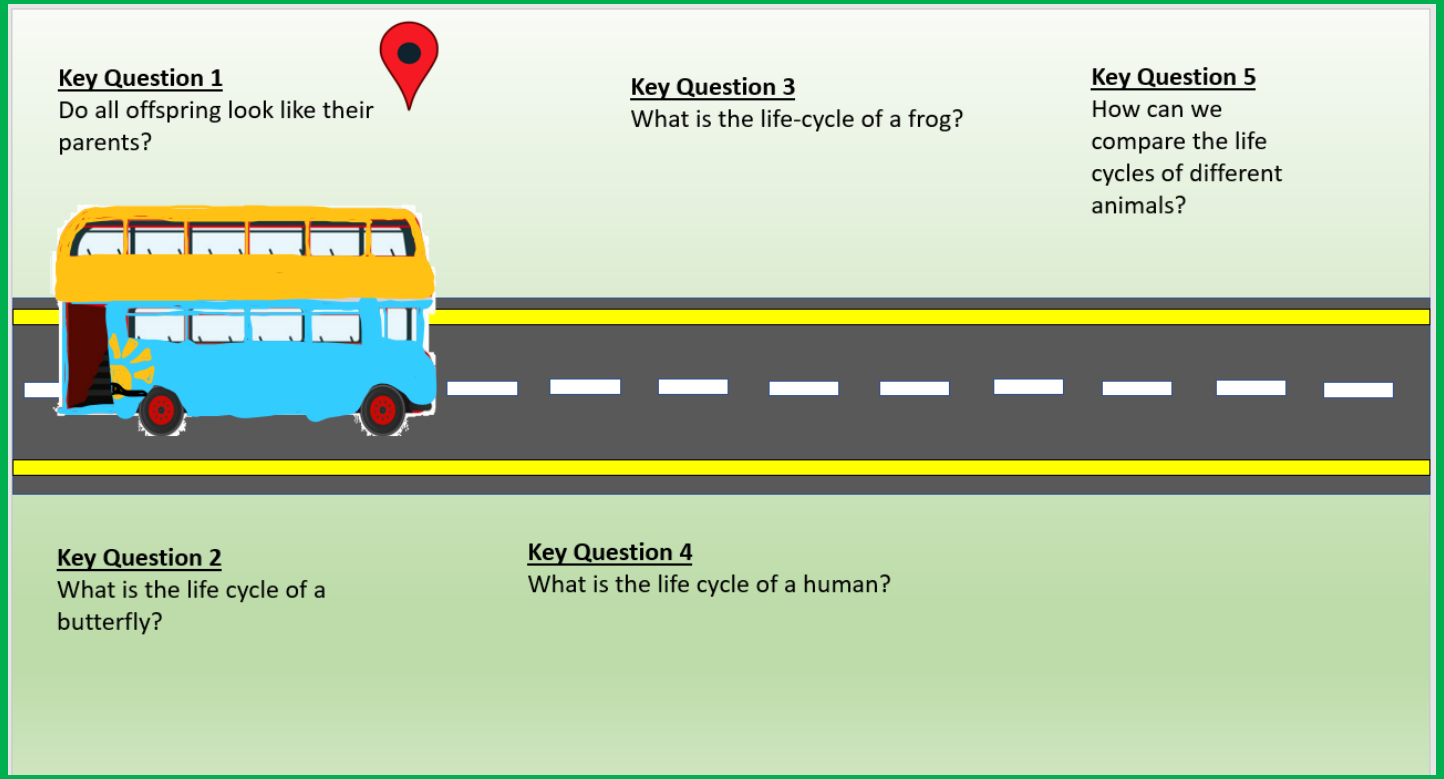
In this unit children will		
Key question	<u>Substantive knowledge</u> *Learning fundamental facts, concepts, and principles across various scientific topics relevant to young learners. This includes understanding basic concepts such as the properties of materials, characteristics of living things, and simple scientific processes like the lifecycle of plants and animals.*	<u>Disciplinary knowledge</u> *Introducing the methods, practices, and principles of scientific inquiry. This includes developing skills such as observation, prediction, measurement, and experimentation in a hands-on and age-appropriate manner. Through disciplinary knowledge, children learn how to think like scientists and engage with the natural world around them in a systematic and investigative way.*
1	• Know that Louis Pasteur was a scientist who was born 200 years ago • Know that Louis Pasteur studied germs • Know that before Louis Pasteur people did not know what caused diseases • Know that because of Pasteur's discoveries, we now know how important it is to keep things clean to stay healthy. Doctors use his ideas to keep hospitals clean, and we have vaccines to protect us from getting sick. Pasteur's work helped make our world a safer and healthier place. • Know that germ is a tiny, invisible organism, like a bacteria or virus, that can make people sick. • Know how germs spread	• Engage in scientific inquiry to apply their knowledge of germ theory and to test the hypothesis - designing an experiment and conducting investigations to test the hypothesis. ***If people do not wash their hands, germs will spread from objects to people*** • Collect data from the experiment, record observations, and analyse the results to draw conclusions about the spread of germs. • Apply their understanding of germ transmission and hand hygiene to real-world situations, emphasising the importance of practicing good hygiene habits to prevent the spread of diseases.
Key vocab	• Study germs vaccine organism bacteria virus hygiene 'hygiene habits' prevent spread disease significance scientist	
2	• Know of the significance of Jane Goodall as a scientist and her contributions to the study of chimpanzee behaviour and conservation. • Know that Jane Goodall discovered that chimpanzees used tools • Know that an ethogram is like a special list that scientists use to write down all the different things an animal does which helps scientists understand more about how animals live and interact with their environment. • Know about the importance of chimpanzee conservation	• Take part scientific inquiry by making an ethogram of chimpanzee behaviour by observing and documenting chimpanzee behaviour in a video • Apply knowledge and understanding of Jane Goodall's work and chimpanzee conservation to effectively communicate ideas about conservation through the creation of a poster, promoting awareness and action for conservation efforts.
Key vocab	• Significance 'animal behaviour' study ethogram interact habitat environment endangered conservation observe document	
3	• Know about Charles Macintosh and his invention of waterproof clothing, understanding its significance in history and its impact on clothing technology • Know that materials can be waterproof but vary in the degree of how waterproof they are.	• Formulate hypotheses based on prior knowledge, observations, and predictions about the waterproof properties of materials, developing skills in hypothesis testing and reasoning. • :Engage in scientific inquiry by designing and conducting experiments (including making accurate measurements of how much water is collected) to test hypotheses and gather data • Collect and analyse data to draw conclusions about the effectiveness of different materials as raincoats
Key vocab	• Invention waterproof non-waterproof significance clothing hypothesis prediction method equipment accurate measurements analyse data conclusion	

4	• Know that energy is what makes things work or move. Everything needs energy to do things such as make a light work, make a plane fly • Know that coal oil and gas are fossils fuels and humans have burn them for a long time to make energy • Know of the environmental impact of fossil fuels on the planet, including pollution and climate change. • Know that scientists have developed renewable energy to help protect the planet and that one of these is wind energy	• Build model wind turbines to experience first-hand the conversion of wind energy into mechanical energy • Formulate hypotheses based on prior knowledge, observations, and predictions, developing skills in hypothesis testing and reasoning to investigate factors affecting wind turbine performance, such as wind speed and load weight, • Collect and analyse data to draw conclusions about the factors affecting wind turbine performance
	Energy coal gas fossil fuels human burn pollution climate climate -change wind-turbine performance weight speed significance clothing hypothesis prediction method equipment accurate measurements analyse data conclusion	
5	• Know about Rachel Carson's research on the effects of DDT pesticide on ocean ecosystems and its role in raising awareness about environmental conservation. • Know what water pollution is and its sources, including human activities such as littering, industrial waste, and agricultural runoff. • Know that water pollution damages ocean habitats and food chains	• Engage in hands-on investigation to explore the process of water pollution and its impact on marine ecosystems, applying scientific methods to observe, experiment, and draw conclusions.
	• Ocean pesticide marine conservation litter industrial waste agriculture run-off ecosystem investigation significance clothing hypothesis prediction method equipment accurate measurements analyse data conclusion	



Year 2 Spring 2

How do different animals grow and change from babies to adults?



In this unit children will **Throughout this term the classrooms will have frogspawn and caterpillars to enable children to observe life cycles from first hand experiences .**		
Key question	Substantive knowledge Learning fundamental facts, concepts, and principles across various scientific topics relevant to young learners. This includes understanding basic concepts such as the properties of materials, characteristics of living things, and simple scientific processes like the lifecycle of plants and animals.	Disciplinary knowledge Introducing the methods, practices, and principles of scientific inquiry. This includes developing skills such as observation, prediction, measurement, and experimentation in a hands-on and age-appropriate manner. Through disciplinary knowledge, children learn how to think like scientists and engage with the natural world around them in a systematic and investigative way.
1	• Know that term for the babies of all animals is offspring • Know that some animal offspring look like their parents, and some do not • Know what a lifecycle is • Know key vocabulary related to the introduction of lifecycles and the definition of each word offspring egg larva pupa adult infant metamorphosis hatching maturity reproduction birth live-young	• Engage in observation and comparison activities to identify differences and similarities between a range of offspring and their parents. • Engage in hands-on observation of the caterpillars and tadpoles in the classroom • Use key vocabulary to discuss differences and similarities between offspring and their parents • Describe, and compare the differences between a frog a tadpole and a cat and a kitten including birth • Demonstrate basic drawing and labelling skills to represent animals and their offspring accurately. (frog cat)
Key vocab	offspring egg larva pupa adult infant metamorphosis hatching maturity reproduction birth live-young	
2	• Know the stages of a butterfly's life cycle: egg, larva (caterpillar), pupa (chrysalis), and adult. • Know the duration of a butterfly's life cycle (10 – 14 days from caterpillar to butterfly) Butterflies live between 2-4 weeks • Know the caterpillar diet is leaves and plants • Know the butterfly diet is nectar • Know the caterpillar habitat is amongst plants, trees and flowers • Know a butterfly habitat will be near plants and flowers and sun	• Describe the stages of a butterfly's life cycle accurately. • Develop drawing and labelling skills to represent the stages of a butterfly's life cycle visually. • Engage in observation and analysis of live caterpillars to understand their behaviour and life cycle progression. • Apply knowledge of butterfly habitats to create a suitable environment for caterpillars. • Communicate interesting facts and observations about butterflies.
Key vocab	Egg Larva (Caterpillar)Pupa (Chrysalis) Hatch Adult (Butterfly) Life cycle Metamorphosis Habitat Food-source Growth Insect Wings Antennae Proboscis Nectar Moulting Chewing mouthparts behaviour observe lifespan	
3	• Know the stages of a frog's life cycle: egg, tadpole, tadpole with legs, adult frog. • Know the characteristics and behaviours of live tadpoles. • Know a tadpole lives in the water and a frog lives on land • Know the differences in physical features between tadpoles and adult and the relevant vocabulary	• Describe the stages of a frog's life cycle accurately • Develop drawing and labelling skills to represent the stages of a frog's life cycle visually.- including changes in diet and habitat • Compare and contrast the life cycles of frogs and butterflies, highlighting key similarities and differences- including duration and life span habitat and diet • Apply knowledge of tadpole habitat and needs to set up a suitable tank for observation.

	• Know that the tadpole diet changes from herbivore (algae) to omnivore (also tiny water creatures • Know that the frog diet is carnivorous (insects such as flies and moths, as well as snails, slugs and worms • Know that it takes 14 weeks for a tadpole to turn into a frigs • Know that UK frogs can live between 2 and 10 years	• Engage in observation and analysis of live tadpoles to understand their behaviour and life cycle progression.
Key vocab	Egg Tadpole Tadpole with legs Adult frog Life cycle Metamorphosis Habitat Diet behaviour observe Amphibian Pond Gills Lungs Froglet Frogspawn hatch lifespan	
4	• Know the stages of the human life cycle: infancy, childhood, adolescence, adulthood, and old age. • Know the physical and emotional changes that occur at each stage of the life cycle. • Know that it takes 9 months for a baby to be born • Know that humans can live up to 100 year or more (but that 100 is very old) • Know that the diet of human babies is milk and that this changes between 4 and 6 months old	• Describe the stages of the human life cycle accurately. • Apply knowledge of human development to interpret and analyse baby pictures and discuss changes over time. • Represent the stages of the human life cycle visually. • Communicate observations and understanding of the human life cycle, including characteristics and abilities associated with each stage
Key Vocab	Pregnancy Old age Physical changes Emotional changes Growth Development Aging Baby Toddler Teenager Adult Elderly lifespan	
5	• Know that animals can be classified based on their life cycle characteristics. • Know that while all three animals (frogs butterflies humans) start from eggs, they each go through different stages to grow and change into adults. Butterflies change dramatically from caterpillars to butterflies, frogs start in water and then move onto land, and humans grow and learn throughout their lives.	• Engage in discussion and analysis of similarities and differences between the life cycles of different animals, using evidence from their observations. • Apply classification skills to sort pictures of other animals based on their life cycle characteristics. • Communicate similarities and differences between animal life cycles effectively.
Key vocab	Life cycle Egg Larva Pupa Adult Metamorphosis Development Amphibian Mammal Insect Water Land Birth Hatching Growth Reproduction Development Similarities Differences	

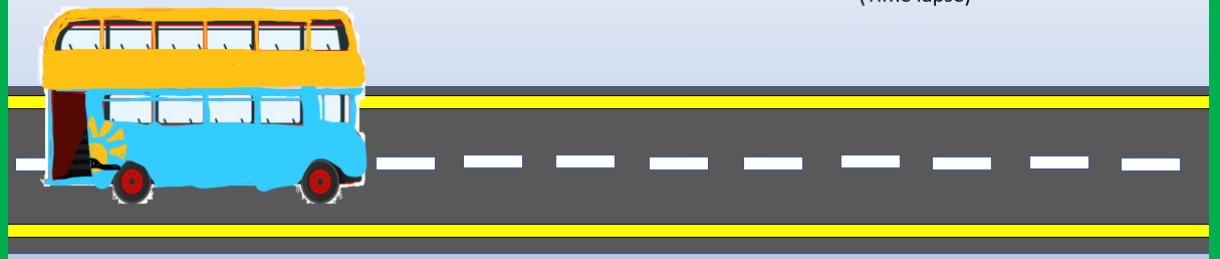
Year 2 Summer 1

How do plants grow?

Key Question 1
What is a seed?

Key Question 3
What do seeds need to grow?

Key Question 5
What key words do I need to use to teach Hazel class how a seed grows
(Time lapse)



Key Question 2
How can we find out what seeds need to grow?

Key Question 4
What happens to a beans seed once it has been planted.?

In this unit children will At the beginning of this unit children will plant a range of seeds and bulbs for children to observe over the full summer term		
Key question	<u>Substantive knowledge</u> Learning fundamental facts, concepts, and principles across various scientific topics relevant to young learners. This includes understanding basic concepts such as the properties of materials, characteristics of living things, and simple scientific processes like the lifecycle of plants and animals	<u>Disciplinary knowledge</u> Introducing the methods, practices, and principles of scientific inquiry. This includes developing skills such as observation, prediction, measurement, and experimentation in a hands-on and age-appropriate manner. Through disciplinary knowledge, children learn how to think like scientists and engage with the natural world around them in a systematic and investigative way.
1	• Know that a seed is produced by plants from which new plants grow • Know about the internal structures of seeds, including the coat, embryo (baby plant), and food store. • Know the difference between a bulb and a seed - a bulb is a plant that is resting underground in the winter	• Develop practical investigation skills by actively engaging in the process of finding seeds in plants and fruits. They will apply their knowledge of seed anatomy to identify and extract seeds from different specimens. • Practice observational skills by dissecting kidney beans (pre-soaked) or frozen and then defrosted broad beans and making detailed observations of the internal structures. They will learn to identify and describe the different parts of the seed, including the coat, embryo, and food store • Draw and label the parts of a kidney/broad bean
Key Vocab	Seed Germination Embryo Coat Food-store Dissection Observation Investigation Specimen Anatomy Reproduction Bulb	
2	• Know that a scientific test is a way for Scientists to find out more about the world around them • Know what a fair test is • Know what a variable is	• Design and carry out a fair test using their knowledge of variables control factors and current knowledge of plants to test what plants need to grow • Create a hypothesis for their experiment • Record hypothesis, method equipment and predictions
Key vocab	Fair test Variables Control Investigation Plant-growth Experiment Prediction Hypothesis method equipment Record Data Analysis Conclusion light dark soil water temperature	
3	• Know that plants need light, water and warmth to grow.	• Interpret data collected from experiments, developing skills in data analysis, and drawing evidence-based conclusions. • Practice observational skills and make detailed drawing of their plant and label the conditions under which it was grown • Use their knowledge of what plants need to grow to plant their beans in bags with best possible growing conditions
Key Vocab	Germinate Light water warmth conditions hypothesis data conclusion	
4	• Know about the process of bean germination, including the stages involved from seed to plant. • Know the key vocabulary relevant to the growth of a bean bean, root, shoot , stem, leaf germination	• Develop their observation skills by closely examining beans and photographs of bean germination and time lapse videos to identify and understand the stages of germination. • Draw and label the stages of the growth of a bean
Key Vocab	Seed Bean Stages Observation Magnifying Glass Time-lapse bean, root, shoot , stem, leaf germination seed coat split	
5	• Know about the process of bean germination, including the stages involved from seed to plant • Know the key vocabulary relevant to the growth of a bean bean, root, shoot , stem, leaf germination	• Identify the different parts of the growing bean plant (root, shoot • Describing the direction of growth of the shoot/root Describe the length, height of root / shoot stem • Describe the changes in leaves as a bean plant grows

		• Developing oral presentation skills • Narrating observations coherently and chronologically
Key Vocab	bean, root, shoot , stem, leaf germination seed coat split sprout unfurl	

What do all animals need to survive?

The Big Question

Year 2 Summer 2

What do all animals need to survive?

Key Question 1
What can't we touch or see or taste, or smell or hear that all animals need to survive>

Key Question 3
Why do we all eat food?

Key Question 5
Why can't humans just eat chocolate?

Key Question 2
Why do we need water?

Key Question 4
What do we all have homes?

Key Question 6
What is a healthy lifestyle?

In this unit children will **Throughout this unit children will be making their own non-fiction book – with the title** **What do all animals need to survive?**		
Key question	<u>Substantive knowledge</u> *Learning fundamental facts, concepts, and principles across various scientific topics relevant to young learners. This includes understanding basic concepts such as the properties of materials, characteristics of living things, and simple scientific processes like the lifecycle of plants and animals*	<u>Disciplinary knowledge</u> *Introducing the methods, practices, and principles of scientific inquiry. This includes developing skills such as observation, prediction, measurement, and experimentation in a hands-on and age-appropriate manner. Through disciplinary knowledge, children learn how to think like scientists and engage with the natural world around them in a systematic and investigative way.*
1	• Know that the term survive means to stay alive • Know that all animals, including humans, require air to survive. • Know oxygen as a vital component of air necessary for animal survival. • Know that air is everywhere even though we can see touch hear smell or taste it • Know humans can survive for about 3 minutes without air	• Engage in hands on activity to investigate and experience the presence of air everywhere • Making connections between personal experiences (breathing) and scientific concepts (the importance of air for animals). • Communicating findings clearly and effectively through writing and or pictures in their non-fiction book
	Survive air oxygen human breathing respiration	
2	• Know that all animals including humans need water to survive • Know that water makes our bodies work and **begin** to understand the reasons why - Keeping us hydrated Moves important things around the body – like oxygen Helps keep bodies at the right temperature Helps digest food Carries waste out of our bodies • Know that humans can survive for roughly 3 days without water	• Observing first hand some of the uses water has in the humans by: Observing how their body sweats during vigorous exercise Observing how water helps to break down food (saliva) to make it easier to swallow • Applying knowledge of the importance of water to practical scenarios, such as physical activity and digestion • Communicating findings clearly and effectively through writing and or pictures in their non-fiction book
Key vocab	hydration, oxygen, temperature digest, waste removal, sweat, saliva, swallowing chew	
3	• Know that animals, including humans, need food to stay strong and healthy. • Know that food gives animals energy to move and helps their bodies grow. • Know that whilst humans can choose their diet, animals must eat the type of food that their bodies are suited too (revision of previous learning on herbivores carnivores and omnivores • Know that humans can survive for roughly 3 weeks without food	• Begin to understand the affects food has on the body by experiencing first-hand how the body feels as it uses up and runs out of energy • Engage in a research activity by using tablets or laptops to gather information about different animal diets. • Classifying animals based on their diets and understanding the implications of these dietary choices for survival. • Communicating findings clearly and effectively through writing and or pictures in their non-fiction book

	Food energy diet suited herbivore carnivore omnivore classify	•
4	• Know that all animals including humans need shelter to survive • Know that shelter provides animals with protection from extreme weather conditions and also provides a safe place for animals to rest, hide from predators, and raise their young. • Know that whilst humans can choose where their home is animals shelter is dependent on the habitat in which they live • Know of a range of different natural habitats burrows, nests, dens, etc • Know that zoo enclosures mimic natural habitats to meet the needs of captive animals.	• Use research skills to gather information about animal habitats and shelter. • Analyse the specific needs of different animals and applying this knowledge to design appropriate zoo enclosures to reflect the natural habitats and needs of assigned animals. • Presenting zoo enclosure designs to the class and explaining the reasoning behind design choices. • Communicating findings clearly and effectively through writing and or pictures in their non-fiction book •
Key Vocab	Shelter Habitat Natural Habitat Carnivore Herbivore Omnivore Burrow Nest Den Enclosure Mimic Predators Extreme weather	
5	• Know the importance of different food groups for maintaining a balanced and healthy diet. • Know the four food groups and begin to understand how each group help us stay healthy Grains: These give us energy to play and learn. Fruits: These help our bodies fight off germs and stay healthy. Vegetables: These help our muscles and bones grow strong. Protein: These help our bodies repair themselves when we get hurt. Dairy: These help our bones grow strong and keep our teeth health • Know that a food pyramid helps us understand which foods are most important for our bodies.	• Classify food items according to the food pyramid. • Use the food pyramid as a tool for planning a healthy diet – breakfast snack lunch dinner/tea • Use knowledge of nutrition and dietary guidelines to make informed decisions about food choices and portion size • Communicating findings clearly and effectively through writing and or pictures in their non-fiction book
Key Vocab	Food Pyramid Nutrients Carbohydrates Proteins Fruits Vegetables Dairy Grains Fats and Oils Balanced Diet	
6	• Know the importance of exercise, hygiene, and sleep in maintaining a healthy lifestyle. • Know the best way to wash their hands • Know what moderate and vigorous exercise feels like • Know that they should exercise for at least an hour a day • Know some ways in which they can exercise everyday and identify ways that they personally like to exercise • Know that 7-year-olds need to sleep for between 9-12 hours a day • Know some good practises that help sleep know some bad practises that prevent sleep	• Experience first-hand the benefit of exercise , proper handwashing and relaxation. • Communicate their knowledge of healthy living effectively by designing a poster for the younger children in the school
Key Vocab	Exercise Hygiene relaxation exercises Healthy lifestyle wellbeing	

Glossary of Year 2 Science Vocabulary
Teachers use definitions consistently when delivering the curriculum

1. Absorbency: When something takes in or soaks up another substance, like a sponge absorbing water
2. Adaptation: Changing to fit into your environment, like animals growing thick fur in the cold.
3. Adult: A grown-up person or animal.
4. Aging: Getting older and changing as time goes by.
5. Air: The invisible stuff we breathe that's all around us.
6. Amphibian: Animals that can live both in water and on land, like frogs.
7. Analyse: Looking closely at something to understand it better.
8. Anatomy: Learning about the different parts of animals or plants.
9. Animal behaviour: How animals act and why they do certain things.
10. Antennae: The long feelers on insects' heads that help them sense things around them.
11. Balance diet: Eating different kinds of healthy foods to stay strong and healthy.
12. Baby: A very young person or animal.
13. Bean: A small seed that can grow into a plant.
14. Behaviour: The way someone or something acts.
15. Birth: Being born and coming into the world.
16. Bacteria: Tiny living things (organisms) that can be found almost everywhere, some are helpful, and some can make us sick.
17. Bend: To curve or flex something, like bending a straw.
18. Bulb: A part of a plant that grows underground and can grow into a flower or plant.
19. Burrow: A hole or tunnel that animals dig underground to live in..
20. Carbohydrates: Foods like bread and pasta that give us energy.
21. Carnivore: An animal that eats meat.
22. Caterpillar: The fuzzy worm-like creature that turns into a butterfly or moth.
23. Elastic: Something stretchy that can return to its original shape after being stretched, like a rubber band or a bouncy ball.
24. Diet: The food and drinks that a person or animal regularly eats to stay healthy
25. Food: Something you eat to give your body energy and keep you healthy.
26. Food chain: The order in which animals eat each other, starting with plants.
27. Food energy: The energy your body gets from the food you eat.
68. Old age: When someone or something gets very old and has lived a long time.
69. Organism: A living thing, like a plant or an animal.
70. Oxygen: The gas we need to breathe to stay alive.
71. Performance: How well something or someone does a task or activity.
72 Photosynthesis: How plants make food using sunlight, water, and air.
73. Physical changes: When something looks different but stays the same substance, like ice melting into water.
74. Plastic: A manmade material that can be moulded into shapes when heated
75. Prediction: saying what you think will happen
76 Predator: An animal that hunts and eats other animals.
77 .Prey: An animal that's hunted and eaten by other animals.
78. Pregnancy: When a female animal is carrying babies before they're born
80. Properties: The special qualities or characteristics of something, like how soft or hard it is.
81. Pulp: Soft, wet material made by crushing or grinding something, like wood pulp used to make paper.
82. Pupa: The stage in an insect's life when it's in a cocoon and changing into an adult.
83 .Purpose: The reason why something is done or made, like a spoon's purpose is for eating.
84. Raw materials: The basic ingredients or parts used to make something, like flour and water for bread.
85. Record: Writing down information or keeping track of something, like writing in a journal.
86. Reproduce: To make babies or offspring, like how plants make seeds or animals give birth.
87. Reproduction: Making babies or new living things.
88. Research: Looking up information or studying something to learn more about it.
89. Resistance: How well something can withstand or fight against something else, like a coat's resistance to rain.
90. Results: What happens after doing an experiment or test.
91. Respiration: Breathing or the process of getting oxygen from the air.
92 Respirate: To breathe in and out.
93. Rock pool: A small pool of water left by the ocean at low tide, often with rocks and sea creatures inside.

94. Run-off: Rainwater that flows over the ground instead of soaking into it.
95.Sequence: The order in which things happen or are arranged.

28. Food pyramid: A way to show the different kinds of food you need to eat every day to stay healthy.
29. Food source: Where animals or people get their food from.
30. Fruits: Sweet, juicy foods that come from plants, like apples and oranges.
31. Frog: A small amphibian that lives near water and jumps with long legs.
32. Frogspawn: The eggs that a frog lays in water.
33. Froglet: When a baby frog grows bigger and starts to look more like an adult frog, but it still has a tail.
34. Germinate: When a seed starts to grow into a plant.
35. Gills: The breathing organs of fish and some other water animals.
36. Grow: Getting bigger or getting older.
37. Habitat: The natural home or environment of an animal or plant.
38. Hardness: How hard or tough something is.
39. Hatch: When an egg breaks open and a baby animal comes out.
40. Hatching: The process of coming out of an egg.
41. Herbivore: An animal that eats only plants.
42. Hydration: Drinking enough water to stay healthy and hydrated.
43. Hypothesis: A guess or idea about what might happen in an experiment.
44. Insect: A small animal with six legs, like ants, bees, and butterflies.
45. Interconnection: How different things are connected or related to each other.
46. Investigation: Looking into something to find out more about it.
47. Larva: The early stage of life for some insects, like butterflies and beetles.
48. Life cycle: The stages of growth and change that an animal or plant goes through during its life
49. Liquid: A substance that flows and can be poured, like water or juice.
50. Living: Something that is alive, like plants, animals, and people.
51. Lungs: The organs in your chest that help you breathe.
52. Marine conservation: Protecting animals and plants that live in the ocean.
53. Maturity: Being fully grown and developed, like an adult.
54. Melt: When something solid turns into a liquid because of heat.
55. Metamorphosis: The process of changing from one form to another, like a caterpillar turning into a butterfly.
56. Method: A way of doing something, like a recipe or set of instructions.
57. Moulting: Shedding old skin, feathers, or shells to make way for new growth.
58. Move: Changing position or going from one place to another.
59. Natural habitat: The place where an animal or plant lives and grows naturally.
60. Non-elastic: Something that doesn't stretch or spring back, like wood.
61. Non-living: Things that were never alive, like rocks or toys.

96. Shelter: A safe place to protect from weather or danger, like a cave or a house.
97. Significance: The importance or meaning of something.
98. Scientist: Someone who studies and learns about the world around us.
99 Soil: The top layer of the Earth's surface where plants grow.
100.Solid: Something that has a fixed shape and volume, like a rock or a toy block.
101 Speed: How fast something moves or happens.
102. Specimen: A sample or example of something, like a leaf collected for study.
103. Squashing: Pressing something flat or crushing it.
104. Study: Learning about something by looking at it closely.
105. Suited: Suitable or right for a particular purpose or person.
106. Survival: Staying alive and healthy.
107. Survive: To stay alive even in difficult conditions.
108. Swallowing: Taking food or drink into your mouth and down into your stomach.
109. Sweat: The salty liquid that comes out of your skin when you're hot or exercising.
110. Swallow: To make food or drink go from your mouth down into your stomach.
111. Stretching: Making something longer or wider by pulling it.
112. Teeth: Hard, bony parts in your mouth that you use to chew food.
113. Temperature: How hot or cold something is.
114. Time-lapse: A way of filming or photographing things to show changes that happen slowly over time.
115. Toddler: A young child who is learning to walk and talk.
116. Transformation: Changing from one thing into another.
117. Twist: To turn something around or change its shape.
118. Uniformity: When things are all the same or similar.
119. Unfurl: To open or spread out something, like a flag unfurling in the wind.
120. Variable: Something that can change or be different.
121. Virus: Tiny germs that can make you sick.
122. Vocabulary: The words you know and understand.
123. Water: A clear liquid that's essential for life.
124. Water temperature: How warm or cold water is.
125. Warming conditions: When temperatures get hotter, like in summer.

62. Non-waterproof: Not able to stop water from getting through, like paper.
63. Object: Something you can see and touch, like a toy or a book.
64. Observations: what you notice
65. Observe: Looking carefully at something
66. Omnivore: An animal that eats both plants and meat, like bears or humans.
67. Offspring: Babies or young animals.