SCIENCE MEDIUM TERM PLAN

Year 2	**Autumn 1** *Animals including Humans*	**Autumn 2** *Living Things and their Habitats*	**Spring 1** *Living Things and Their Habitats*	**Spring 2** *Everyday Materials*	**Summer 1** *Plants*	**Summer 2** *Living Things and their Habitats*
Topic Title	**What do animals and humans need to survive?**		**Are all habitats the same?**	**How can materials be changed?**	**What do plants need to grow?**	**What is a food chain?**
National Curriculum	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. notice that animals, including humans, have offspring which grow into adults	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 micro-habitats describe how animals obtain their food from plants and other animals	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.	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.	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.
Knowledge	Identify the basic needs of animals, including humans, for survival (water, food and air). Suggest how the basic needs of different animals influences their choice of habitat. Describe the importance of a healthy diet and exercise.	Identify that a habitat supplies living things with what they need. Explain how, for a named animal or plant, it gets what it needs from its habitat and other living things that are there. Explain why there may be a limit as to how many of	Identify a range of living things in habitats of various sizes. Identify a range of living things and suggest why they may be found in that habitat. Explain why there may be a limit as to how many of a certain living thing can live in a particular area	Select and justify a material for a particular use. For particular materials in particular uses, identify limitations as well as suitability. Identify that the shape of some objects can be changed.	Explore and identify what plants need to thrive. Identify the effects of a shortage of each of the things that plants need to grow and stay healthy. Describe stages of development of a full grown plant.	Identify a predator–prey relationship. Construct a simple food chain and identify what is eating what. Suggest, within a simple food chain, what might happen if one of the living things becomes scarce.

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	Suggest effects of poor diet and hygiene. Describe the relationship between adult animals and their offspring. Compare and contrast adults and their offspring for different animals	a certain living thing can live in a particular area.		Describe changes achieved by applying forces in different directions. Identify that some changes to shapes are permanent and others are temporary, and that this can influence their uses.	Compare and contrast the growth patterns of different types of plants	
Investigations	How long does it take for our heart to slow down after exercise?	Compare and sort living, dead and never alive. What might we find under a log? • Investigate using hand lenses	Identify suitable habitats.	How can the shape of objects be changed? Identify suitable materials for different purposes.	What does a plant need to survive?	Middle England trip.
Quick Fire 5	1. What are the basic needs for us to survive? 2. What is the life cycle of a human? 3. What is the life cycle of a frog? 4. What is a healthy, balanced diet? 5. Why is a healthy diet and exercise important?	1. What is a habitat? 2. What does a habitat provide to help living things to survive? 3. What is a microhabitat? 4. How does a living thing survive in a microhabitat? 5. How can we protect microhabitats and their living things?	1. Can you name something that is living, non-living and never lived? 2. Can you identify an animal and a plant in each habitat? 3. How do animals survive in extreme habitats? 4. How do plants survive in extreme habitats? 5. Can you identify a food chain in Antarctica?	1. What materials can you name? 2. What are the properties of different materials? 3. Can you name a particular use for each material and explain its suitability? 4. What materials can be changed and how are they changed? 5. What is the difference between a permanent and temporary change?	1. Where do plants come from? 2. What is the lifecycle of a plant? 3. What do plants need to grow and stay healthy? 4. How long does a plant take to germinate? 5. Do all plants take the same amount of time to grow?	1. What is a food chain and why are they important? 2. Why do most food chains begin with a plant? 3. What is the difference between a predator and prey? 4. Can you name the food chain for each habitat? 5. What will happen if one of the living things become scarce?

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Working Scientifically	• Pupil can ask simple questions that can be tested, e.g. about the local environment and how organisms depend on each other • Pupil can suggest different ways of answering a question, e.g. testing the suitability of materials for different purposes. • Pupil can examine carefully, e.g. using a hand lens. • Pupil can conduct simple tests, e.g. setting up comparative tests to show that plants need water and light.					
Vocabulary	Water, food, air, environment, home, shelter, nutrition, balanced diet, parents, offspring, compare, contrast, differences, habitat, shelter		Living, dead, never alive, micro-habitat, minibeast,	materials, properties, suitability, flexible, rigid, hard, soft, fragile, bending, twisting, folding, forces, push, pull, permanent, temporary	Sunlight, oxygen, temperature, roots, soil, stem, bulb, seed, sapling, flower	Predator, prey, food chain, consumer, supplier, diet, carnivore, herbivore, omnivore, scarce
Prior Learning	Group and compare animals, label basic parts of the human body.	Identify and name a variety of animals including amphibians, fish, reptiles, birds and mammals.	Explored habitats of living things and what they provide for an animal.	Describe properties of everyday materials and grouped them based on their properties.	Observe changes across seasons and the weather associated with seasons.	Identify a range of common animals that are carnivores, omnivores or herbivores. Identify and name a variety of animals including amphibians, fish, reptiles, birds and mammals.