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	notice that animals 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.

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Knowledge	Identify the basic needs of animals, including humans, for survival (water, food and air). Describe the importance of a healthy diet and exercise. 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. Identify that a habitat supplies living things with what they need. Suggest how the basic needs of different animals influences their choice of habitat.	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 how, for a named animal or plant, it gets what it needs from its habitat and other living things that are there.	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. 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.	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. Compare and contrast the growth patterns of different types of plants	Name different sources of food for animals, including humans. Know that a food chain shows what eats what. Know that most food chains start with a plant. Build a simple food chain, including one with a human (Grass > Cow > Human) Build a food chain for a habitat we have studied and explain what each animal gets from the one before.
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.

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Quick Fire 5	1. What is the human lifecycle? 2. What are the basic needs for humans to survive? 3. What is a balanced, healthy diet? 4. Why is exercise good for us? 5. What are the effects of poor hygiene?	1. How do you know if something is living? 2. What is the difference between living and non-living? 3. Can you list 3 animals and their offspring? 4. What is the life cycle of an animal? 5. Can you describe the how an offspring grows to be an adult?	1. Can you name something that is living, something dead and something that has never been alive? 2. Can you identify an animal and a plant in each habitat? 3. How does this habitat give animals what they need? 4. How does this habitat give plants what they need? 5. What do animals in this habitat eat?	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 does a food chain show? 2. Why do most food chains begin with a plant? 3. Where does a rabbit get its food from? 4. Name a food that comes from a plant and a food that comes from an animal. 5. Can you make a food chain for this habitat?
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	Food chain, food, source, plant, animal, habitat, carnivore, herbivore, omnivore.
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.