Mendell Primary School
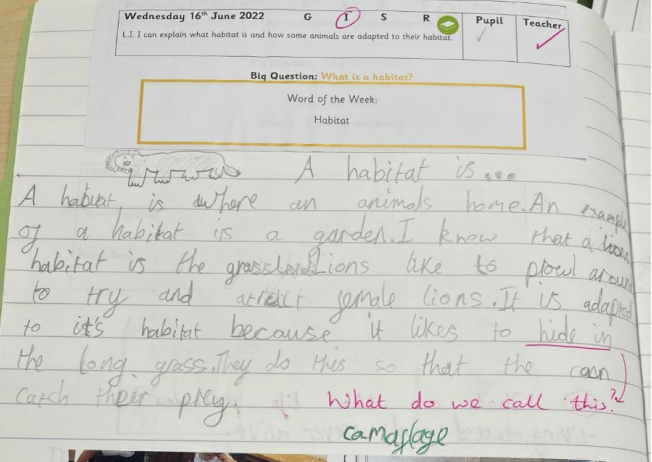
Aspire   Challenge   Achieve

Medium Term Plan Science

Year Group: 2	Term: Summer 2		Teacher: Sarah Bride	Subject lead: Sarah Bride	Overview: Living Things and their Habitats	Key End Points: By the end of this unit children will be able to:

Common Misconceptions:		Unit key Vocabulary:		Overview	Key End Points
Some children may think: . • an animal's habitat is like its 'home' • plants and seeds are not alive as they cannot be seen to move • fire is living • arrows in a food chain mean 'eats'.		• Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed • Names of local habitats e.g. pond, woodland etc. • Names of micro-habitats e.g. under logs, in bushes etc.		• 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, using the idea of a simple food chain, and identify and name different sources of food	• Talk about and describe different habitats. • Explain how an animal is designed for its habitat. • Describe how animals and plants get what they need to survive from their habitat. • Order a simple food chain. • Say if something is living, dead or never been alive.

Identifying, grouping and classifying — Making observations to name, sort and organise items.

Research — Using secondary sources of information to answer scientific questions.

Links to other learning:	Prior Learning:	Future Learning:	High Quality Text:	Risk Assessment:	Teacher CPD:
	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. **(Y1 - Plants)** • Identify and describe the basic structure of a variety of common flowering plants, including trees**. (Y1 - Plants)** • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. **(Y1 - Animals including humans)** • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. **(Y1 - Animals including humans)**	Recognise that living things can be grouped in a variety of ways**. (Y4 - Living things and their habitats)** • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. **(Y4 – Living things and their habitats)** • Recognise that environments can change and that this can sometimes pose dangers to living things. **(Y4 - Living things and their habitats)** • Construct and interpret a variety of food chains, identifying producers, predators and prey. **(Y4 - Animals, including humans)**	Tadpole's Promise **Scientist to study:** **Dawood Qureshi** (Marine Biologist who studies wildlife in the ocean) **William Kirby** (Father of modern entomology, the study of insects)		ASE plan exemplification – Max Reach out CPD https://www.reachoutcpd.com/ sign up for free.

	· Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). **(Y1 – Animals, including humans)** · Observe changes across the four seasons. **(Y1 - Seasonal changes)**				

	Learning Intention	Lesson Outline (Key Questions in colour)	Resources	Vocabulary	Lowest 20% Adaptations
1	L.I. I can compare the differences between things that are living, dead and have never been alive.	**This is a Science lesson. In Science, we study nature and the behaviour of natural things. The skill we will be using this lesson is making observations.** **Pre-Topic assessment:** Children complete mind map of things they remember from last year: Prompt questions: **What do we call trees that lose their leaves?** **What types of animals are there?** **What vocabulary do you remember that describes what an animal eat?** **Big Question:** Are all things living? Ask the children what it means to be alive. Ask the children to create a list of things that living things can do. Share MRS GREN using the resource PowerPoint with the children and explain each life process. Show the children a range of images and ask the children to sort the images into living and non-living. Alternatively depending on the weather the children could go outside on a hunt and allow the children to collect things they find outside and allow them to sort them when back in class. Discuss with the children how they know. Discuss what living things need. Explain Non-living things can be things that were once living or part of a living thing, or they can be things that have never been alive. They do not need food, water or air. They cannot reproduce. Discuss with the children that non-living things can be split into dead and never lived – explore this with the children by sorting a range of images. Explore an image from each category and discuss how the children know it is living, dead or never lived. **Task:** Ask the children to select something that is living, dead and never lived to record in their books. The children need to draw their item and give three reasons as to why it is living, dead or never lived. **Exit Pass:** vocabulary check. Living, non-living, never lived definition match up. **CH:** What are the life processes?	Resource PowerPoint Sorting cards – living, dead, never lived.	**Living, non living, dead, life processes, movement, respiration, sensitivity, growth, reproduction, excretion, nutrition.**	
2	L.I. I can explain what a habitat is and	**This is a Science lesson. In Science, we study nature and the behaviour of natural things. The skill we will be using this lesson is making observations and asking questions.** **Prior Learning: What does the word living mean? Can you give an example?**	Range of animals for sorting from	**Habitat, woodland, ocean, desert,**	

	how some animals are adapted to their environment.	**What does the word non-living mean? Can you give an example?** **What does the word never lived mean? Can you give an example?** **Word of the week: habitat** – to introduce this to the children show the children Explorify – Tip the scales odd one out. Encourage discussions around where these animals live. Then introduce the key vocabulary – "habitat" - explaining that this is where a plant or animal lives. Discuss with the children what types of habitats they can name e.g. woodland, ocean, desert, grassland, forest, pond etc… https://www.youtube.com/watch?v=ZrSWYE37MJs Provide the children, in groups with a range of picture cards and ask the children to sort the animals according to where they live – their habitat. Ask the children to label each habitat and take photographs of the children's sorting. Encourage discussions about why these animals live in the habitat – **How are they suited to their habitat?** **Task:** Ask the children to choose an animal that they are already familiar with, from a different habitat, to draw it in its habitat and write about it. 	different habitats.	**grassland, forest, pond, diet.**	
3	L.I I can identify and name mini-beasts found in a micro habitat.	**This is a Science lesson. In Science, we study nature and the behaviour of natural things. The skill we will be using this lesson is recording data and communicating results.** **Prior Learning:** Habitat matching activity to consolidate previous lesson. Children match the animal to its habitat and then select an adaptation. **Big Question: What can be found in a microhabitat?** **Word of the week: microhabitat** – A microhabitat is a small area which differs somehow from the surrounding habitat e.g. under a log. **What micro habitats can you think of?** Share some examples e.g. under a log or in a rotting log, under a rock in a stream. **How are there microhabitats different from the habitat they are in?** - Difference in temp, light, water.	Tally chart and pictogram template. Habitat matching activity.	**Microhabitat, mini beast, habitat.**	

		Explain to the children that they will be completing a mini beasts survey in a micro habitat on the school field. Provide the children with a tally chart for them to complete out on the field. Take them outside for a mini beast hunt. Back in class allow the children to read their data and communicate their results in a pictogram. **Choice Chamber:** Following the mini beast hunt – discuss the conditions of the microhabitat they investigated. Together as a class set up a choice chamber e.g. an area that is dark and wet, area that is light and dry, light and wet, dark and dry. Observe the mini beasts the next day to see where the mini beasts have moved to.			
4	L.I. I can explain how animals can be suited to their environment	**This is a Science lesson. In Science, we study nature and the behaviour of natural things. The skill we will be using this lesson is asking questions.** **Prior Learning: What animals live in a grassland habitat?** **What does non-living mean?** **What is a microhabitat?** **Big Question: How can animals be suited to their habitats?** Recap the work the children completed in lesson 2. Show the children a picture of a polar bear, **where does it live? Why does it live there? How is it suited to live in such cold conditions?** e.g. thick fur, white to camouflage from its prey. Ask the children to choose a habitat that interests them and create an animal that would be suited to that environment. Before the children begin they could question each other on their animal e.g. **How is it suited to the temperature of the habitat? How is it adapted to catch prey? How can it escape predators?**		**Never been alive, suited, suitable, basic needs, food, habitat.**	
5	L.I. I can explain how animals obtain their food using a simple food chain.	**This is a Science lesson. In Science, we study nature and the behaviour of natural things. The skill we will be using this lesson is making observations and communicating information.** **Prior Learning: What animals live in a rainforest habitat?** **What does never lived mean?** **What is a micro habitat?** **Big Question: What is a food chain?** Watch: https://www.bbc.co.uk/teach/class-clips-video/science-ks1-the-food-chain/zbr8d6f Provide the children with a range of picture cards and together on the carpet create a food chain. Ensure the children understand that the arrows show the transfer of energy, all living things eat in order to have energy. Introduce the vocabulary: producer, consumer and	Food chain picture cards.	**Food chain, producer, consumer, predator.**	

| | | predator. Allow the children to explore the pictures at their tables and in groups create different food chains: observe the children carefully and ensure they select animals from the same habitat.

Task: record food chains they have created and identify the produce, consumer and predator.

CH: what do the arrows show in a food chain? | | | |