Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Subject: Science Year: KS1 year A – Living things and their habitats

NC/PoS:

- 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 microhabitats
- 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.

Prior Learning (what pupils already know and can do)

Know that we need to look after our world (animals and plants) Know that plants are important in keeping them healthy. Know that different animals are found in different environments (farmyard, forest) Know the basic needs of animals (air, water, food, shelter) Know plants and animals found in local environment. Know that living things grow and have life cycles. Know plants need light, water, air, nutrients and space.

End Goals (what pupils MUST know and remember)

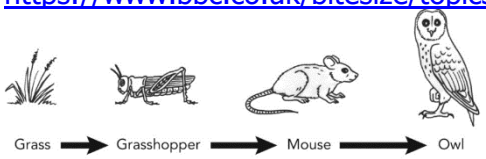
- Know the difference between living (grow), dead (no longer alive) and never been alive (does not grow)
- Know the 5 things all living things need – food, water, shelter, warmth, and space
- Name different habitats for plants and give an example – grassland (ryegrass, wild oats), forest (ferns, foxgloves), pots (tomatoes, peas), desert (prickly pear, aloe vera, cactus), river (pondweed, waterweed), and tundra (artic moss, artic poppy)
- Name habitats for animals and give examples – grassland (elephant, zebra, lion), desert (camel, scorpion), river (turtle, fish, crab), tundra (polar bear, snowy owl), and forest (squirrel, deer, bird)
- Know what a microhabitat is - a small, specialized habitat within a larger habitat – decomposing log (earthworm, centipede, beetle), temporary pool of water (water mites), and under rocks (worm, ant, cricket)
- Know animals obtain food from other animals and plants
- Know how to explain a simple food chain and name various sources of food (grass, snail, bird)

Key Vocabulary: living things, dead, alive, movement, respiration, sensitivity, growth, reproduction, excretion and nutrition, habitat, natural environment, microhabitat, decomposing logs, under rocks, grassland, desert, tundra, river, ferns, foxgloves, primroses, elephant grass, acacia tree, fennec fox, prickly pear, aloe vera, snowy owl, artic moss, artic willow, artic poppy, turtle, pondweed, waterweed, wild celery, food chain, producer, consumer, energy, nutrients

Session 1: review prior learning

Children revisit: We need to look after our world (animals and plants) and that plants are important in keeping people healthy. Different animals are found in different environments (farmyard, forest) and the basic needs of animals are air, water, food, shelter. Living things grow and have life cycles and plants need light, water, air, nutrients and space

Session 2: Recap: what are the basic needs of animals? Name animals found in farmyard and forest. Children learn: that dead things are things which are no longer alive e.g. a picked flower and that examples of things that have never been alive are rocks. Living things all use the following processes: movement, respiration, sensitivity, growth, reproduction, excretion, nutrition (MRS GREN) Suggested resources: https://www.bbc.co.uk/bitesize/topics/zx882hv dead, living, non-living Sorting out photographs for things living, dead, never alive. Cover misconceptions: is a flame alive? Vocabulary: living things, dead, alive, movement, respiration, sensitivity, growth, reproduction, excretion, nutrition
Session 3: Recap: what processes do all living things use? Name things that are dead or have never been alive. Children learn a habitat is a natural environment in which a particular animal or plant lives and that a microhabitat is a small, specialized habitat within a larger habitat. Examples of microhabitats are decomposing logs (centipedes, beetles), temporary pools of water (water mites) and under rocks (ants, worms). Plants provide shelter for animals. Suggested resources: https://www.youtube.com/watch?v=x7jwJ2bI9Lg habitats (start at 1:00) https://www.youtube.com/watch?v=B4wcFZngFzw microhabitats Vocabulary: habitat, natural environment, microhabitat, decomposing logs, under rocks
Session 4: Recap: What is a habitat? What is a microhabitat? Give examples of habitats and microhabitats. Why are plants important? Children identify plants/ animals in specific habitats in the local environment Suggested resources: Search throughout local environment finding habitats/microhabitats recording the conditions there and the animals/plants found here e.g. under rock, damp, warm, dark – woodlouse, centipede Vocabulary: specific to local environment e.g. forest, field, woodlouse
Session 5: Recap: what is a habitat/ microhabitat? Name habitats/ microhabitats in local environment. Give examples of plants and animals found there. Children learn: in a forest habitat are animals (squirrel, deer, woodpecker) and plants (ferns, foxgloves, primroses); in a grassland habitat are animals (elephant, zebra, lion) and plants (elephant grass, acacia tree); in a desert habitat are animals (camel, scorpion, fennec fox) and plants (prickly pear, aloe vera, cactus); in a tundra habitat are animals (polar bear, snowy owl, reindeer) and plants (artic moss, artic willow, artic poppy); in a river habitat are animals (turtle, fish, crab) and plants (pondweed, waterweed, wild celery) Suggested resources: Match plants/animals to habitat https://www.bbc.co.uk/bitesize/topics/zx882hv Various habitats Vocabulary: grassland, desert, tundra, river, ferns, foxgloves, primroses, elephant grass, acacia tree, fennec fox, prickly pear, aloe vera, snowy owl, artic moss, artic willow, artic poppy, turtle, pondweed, waterweed, wild celery
Week 6: Recap: Match animals/ plants to the habitats: forest, grassland, desert, tundra, river Children learn that plants provide shelter, and all animals obtain their food from plants and/or other animals. All food chains start with a plant (producer) and a food chain shows how each living thing gets food and how nutrients and energy are passed along the chain. Consumers eat plants or other animals to get energy.

Suggested resources: https://www.youtube.com/watch?v=8L2MZdOIZrs the food chain BBC Teach https://www.bbc.co.uk/bitesize/topics/zx882hv/articles/z3c2xnb food chain    Vocabulary: food chain, producer, consumer, energy, nutrients, predator, prey
Link to career scientist: https://pstt.org.uk/application/files/6116/2851/6247/Ecological_entomologist_-_Dr_Ben_Woodcock.pdf Environmentalist, climate scientist, wildlife biologists, conservationists
Scientists who have helped develop understanding in this field: British ecologist Arthur Tansley who drew attention to the importance of transfers of materials between organisms and their environment.