

## Knowledge Organiser

### Subject: Science      Unit: Living Things and Their Habitats 1

#### Overview:

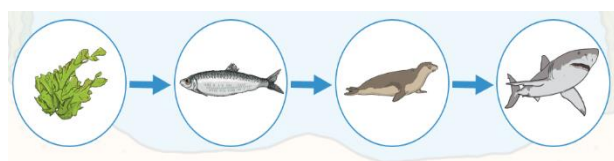
During this sequence of learning, pupils will explore and compare the differences between organisms that are living and dead, identify and describe different habitats and how they are suited to the organisms that live there. They will also look at how animals obtain their food using the idea of basic food chains.

#### What should I already know?

- Different plants and trees by sight such as an oak tree, birch tree, sunflower and a dandelion.
- Whether an animal is a mammal, bird, fish, reptile or amphibian.
- A herbivore is an animal that eats only plants, carnivores eat only meat and omnivores eat both plants and meat.

#### What will I know by the end of the unit?

- Living things move, grow, consume nutrients and reproduce; that dead things used to do these things, but no longer do; and that things that never lived have never done these things.
- Polar bears are an example of an animal adapted to its environment - thick fur for warmth and oily paw pads to ensure that they don't freeze to the ice.
- Sharks are another example - smooth skin and streamlined shape for quick swimming; and gills for breathing underwater.
- Cacti are an example of a plant adapted to its environment - thick skin keeps a store of water safe; sharp spikes keep animals from stealing the water.
- Examples of animals and plants that live in different habitats e.g. in an ocean habitat you might find algae, fish, sharks, whales etc.
- Woodlice live under logs - an example of a microhabitat - as they need somewhere dark and damp so that they do not dry out.
- Plants absorb energy from the Sun; that this energy is consumed by herbivorous animals; and that carnivorous animals eat other animals.
- Food chains always start with a producer (plant).
- The arrows on a food chain show the direction that the energy travels.
- Food chains for different habitats e.g. an ocean habitat might look as follows:



#### Vocabulary:

birth	The process of a baby or young being born from its mother.
decay	When something rots or decomposes.
energy	Every living thing needs energy to survive.
habitat	Where a plant or animal lives.
microhabitat	A smaller habitat e.g. under a log.
dead	No longer alive.
life cycle	The stages of change that something goes through.
food chain	A series of living things linked by what they feed on.
nutrients	Something needed by living things in order to stay alive.
reproduction	When living things make a new living thing of the same kind.
consumption	Eating or drinking something.
environment	The surroundings where a plant, animal or human lives.
producer	A plant that produces its own food from sunlight.
consumer	An animal that consumes food as it cannot produce its own.