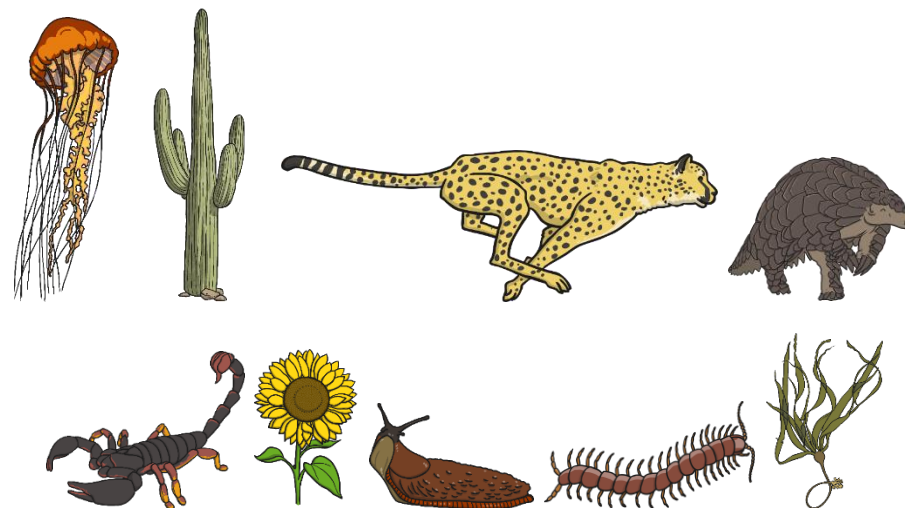


Year 4 Autumn 1 (Science) Knowledge Organiser

Topic: Living Things and their Habitats

Key Skills:

- Sort living things into groups.
- Generate questions about living things.
- Identify the characteristics of living things.
- Sort living things into Venn and Carroll Diagrams.
- Explain the main difference between vertebrates and invertebrates.
- Identify similarities and differences between vertebrates.
- Identify vertebrate groups.
- Use questions to sort animals using a key.
- Explain that some invertebrates have a hard shell outside their bodies to protect them and others have soft flexible bodies.
- Explain the proportion of invertebrates to living things and animals - more than 80% of living things on the planet, and 98% of animals, are invertebrates.
- Know the names of some groups of invertebrates and their characteristics.
- Give examples of microhabitats.
- Find invertebrates and use a key to identify them.
- Complete a table to show the characteristics of living things.
- Create a classification key.
- Explain the basic needs for living things and habitat threats.
- Name some endangered species and how changes to the environment affect them.



Key Facts:

- All living organisms share characteristics called life processes.
- We can remember these by - MRS GREN – movement, respiration, sensitivity, growth, reproduction, excretion and nutrition.
- All animals, including humans, do these things. Plants do too, but in different ways.
- Living things have lots of similarities and many differences too.
- Living things can be sorted using Venn and Carroll Diagrams.
- Scientists think that there are 7.77 million species of animals in the world.
- 1.4 million have been discovered. 6 million are yet to be discovered and named.
- The differences between living things is called variation.
- Animals can be split into two groups: vertebrates (animals with a backbone) and invertebrates (animals without a backbone).
- Vertebrates are divided into 5 groups: mammals, fish, birds, reptiles, amphibians.
- Classification keys are a way of identifying living things through questions.
- Some invertebrates have a hard shell outside their bodies to protect them. Others have soft, flexible bodies.
- More than 80% of living things and 98% of animals, are invertebrates.
- There are 7 groups of invertebrates – insects, annelids, protozoa, crustaceans, molluscs, arachnids, echinoderms.
- Invertebrates often inhabit small homes called microhabitats eg under rocks
- All living things need certain conditions called basic needs.
- Habitat change can be dangerous to organisms especially endangered species.

Key Vocabulary:

- Organism
- Life processes
- Movement, Respiration, Sensitivity, Growth, Reproduction, Excretion, Nutrition
- Venn and Carroll Diagrams
- Vertebrates and Invertebrates
- Key
- Characteristics
- Microhabitat
- Species
- Variation
- Classification
- Basic Needs
- Habitat threat
- Endangered
- Environment