

Nature's Detectives: Living Things Classification File

Learning objective: To identify, classify, and describe the characteristics of living things using scientific vocabulary, exploring how living things are grouped in a variety of ways.

Choose a living thing you have observed in your local environment, garden, or local park. Use your scientific knowledge to complete this fact-file. Remember to use precise language to explain how your chosen organism fits into the classification system used by scientists.

Word bank: vertebrate · invertebrate · habitat · classification · organism · characteristic · adaptation · environment · species · life cycle

1. Identification and Classification: State the name of your chosen living thing. Is it a vertebrate or an invertebrate? Justify your classification by describing its physical structure. (2 marks)

2. Habitat and Environment: Describe the specific habitat where this organism lives. Explain why this environment is perfectly suited to meet the creature's basic survival needs. (3 marks)

3. Key Characteristics: List three distinct physical or behavioral adaptations this living thing possesses. Explain how each adaptation helps it to survive in the wild. (3 marks)

4. Compare and Contrast: If you were to compare your chosen organism with a different species from the same group (e.g., another mammal or another insect), what significant similarities and differences would you observe? (3 marks)

5. Explain why: Why is it important for scientists to use a classification system to organize all living things found on Earth? (2 marks)

6. What might happen if: Imagine the environment of your chosen living thing changed significantly (e.g., a drought or a change in temperature). How might this organism adapt, and what are the potential consequences for its survival? (4 marks)

Extension challenge: Design a new, fictional species that has adapted to live in an extreme environment. Write a short paragraph explaining its classification (e.g., is it a mammal, amphibian, or insect?) and justify why its unique physical features are necessary for survival in its chosen home.