

## Objective

By the end of this lesson, you will be able to identify and distinguish between vertebrates and invertebrates, and understand the different invertebrate families.

## Materials and Prep

- Paper and pencil
- Internet access (optional)

No prior knowledge is required for this lesson.

## Activities

1. Start by discussing what makes an animal a vertebrate or an invertebrate. Explain that vertebrates have a backbone, while invertebrates do not. Give examples of common vertebrates like mammals, birds, reptiles, amphibians, and fish. Then, provide examples of invertebrates like insects, spiders, worms, and mollusks.
2. Next, focus on invertebrates and their different families. Show pictures or use online resources to introduce the main invertebrate families such as arthropods, mollusks, annelids, and echinoderms. Discuss the characteristics and examples of each family. Encourage the student to take notes or draw pictures to remember the information.
3. After learning about the different invertebrate families, engage the student in a classification activity. Provide a list of animals and ask the student to categorize them as vertebrates or invertebrates. Then, challenge them to further classify the invertebrates into their respective families. Discuss the correct answers and provide explanations for any misconceptions.

## Third Grade Talking Points

- "Today, we are going to learn about animals and how they can be classified as vertebrates or invertebrates."
- "Vertebrates are animals that have a backbone, like us humans. Can you think of any examples of vertebrates?"
- "Invertebrates, on the other hand, do not have a backbone. They come in many different shapes and sizes. Can you name some invertebrates?"
- "Let's dive deeper into invertebrates by exploring their different families. One family is called arthropods, which includes insects and spiders. Can you think of any other arthropods?"
- "Another invertebrate family is mollusks. They have soft bodies and often live in shells. Can you name any mollusks?"
- "Annelids are another family of invertebrates. They are often long and slimy. Can you think of any annelids?"
- "Lastly, we have echinoderms. They have spiny skin and can be found in the ocean. Can you name any echinoderms?"
- "Now, let's test our knowledge. I will give you a list of animals, and I want you to tell me if they are vertebrates or invertebrates. Can you do that?"
- "Great job! Now, let's take it a step further. For the invertebrates, I want you to tell me which family they belong to. Can you classify them?"