Introduction: What's Missing? (10 mins)

Start by asking: "What do you, a dog, a fish, and a bird all have in common? Think about what's inside your body that helps you stand up straight." Guide the student to the idea of a backbone (spine). "Feel your own backbone!" Then ask, "Do you think ALL animals have a backbone?" Introduce the term **Invertebrate**: animals WITHOUT backbones. Explain that most animals on Earth are actually invertebrates!

Exploring Invertebrate Superpowers (Characteristics) (15 mins)

Discuss the main characteristics of invertebrates:

- **No Backbone:** This is the defining feature!
- **Exoskeleton (Sometimes!):** Many invertebrates, like insects and crabs, have a hard outer shell for protection and support, like armor! Ask: "Why might they need armor?"
- **Soft Bodies (Sometimes!):** Others, like worms and jellyfish, have soft bodies. Ask: "How do you think they move or protect themselves?"
- **Often Small:** While some can be large (like giant squid!), most invertebrates are much smaller than vertebrates.

Show pictures of different invertebrates highlighting these features. Draw simple diagrams on the whiteboard/paper.

Meet the Invertebrate Families! (15 mins)

Introduce a few major groups of invertebrates using pictures:

- **Insects:** "Like ants, bees, butterflies! What do they often have?" (Six legs, three body parts, antennae, wings).
- **Arachnids:** "Like spiders and scorpions! How are they different from insects?" (Eight legs, two body parts).
- **Worms:** "Like earthworms! What do you notice about their bodies?" (Long, soft, segmented bodies, no legs).
- **Mollusks:** "Like snails and clams! What protects many of them?" (Often have a shell).
- **Cnidarians:** "Like jellyfish! Where do they live?" (Mostly in water, have stinging cells).

Keep it simple, focusing on one or two key features for each group.

Activity: Vertebrate vs. Invertebrate Sort! (15 mins)

Spread out the animal pictures. Have the student pick up one picture at a time, decide if the animal has a backbone (vertebrate) or not (invertebrate), and place it in the correctly labeled container or area. Ask questions like: "Why did you put the spider there? Does it have a backbone? What group does it belong to?" Guide and correct as needed.

Optional Extension: Backyard Safari (15-20 mins)

If possible, go outside! Gently look under rocks, logs, or leaves, or examine plants. Use a magnifying glass to look for small invertebrates like ants, beetles, worms, or snails. Remind the student to observe gently without harming the creatures. Discuss findings: "What did you find? Is it an invertebrate? How do you know?"

Wrap-up & Review (5 mins)

Review the main points: "What does 'invertebrate' mean? Can you name two characteristics? Can you name three types of invertebrates we learned about? What's the big difference between a snake

(vertebrate) and a worm (invertebrate)?" Praise their learning and curiosity about these amazing animals!