

INSECT & SPIDER PUZZLES

Description:

Students use insect and spider body part pieces to learn the basic anatomy of insects and spiders.

Objective:

Students will learn the basic anatomy of insects and spiders. Students will prepare for live observations and basic identification of local insects and spiders.

Standards:

- **SC.2.7.2.C** - Make observations of plants and animals to compare the diversity of life in different habitats. Assessment does not include specific animal and plant names in specific habitats.
- **LA X.1.5** - Acquire new academic and content-specific grade-level vocabulary, relate to prior knowledge, and apply in new situations.

Materials:

- Photos of honeybee & garden spider
- Large insect puzzle pieces (*head, thorax, abdomen, 6 legs, 2 antennae, 2 eyes*)
- Large spider puzzle pieces (*cephalothorax, abdomen, 8 legs, 8 eyes*)
- Optional: copies of student handout sheets, scissors

Background Info:

As adults, insects have 3 pairs of legs (6 total) and 3 distinct body parts. Insects also usually have 2 antennae, two pairs of wings, compound eyes, and a distinct mouth parts adapted for their food. The three main insect body parts are the **head, thorax, and abdomen**. The head contains the **antennae, eyes, and mouthparts**. Antennae are flexible appendages used to sense the environment. Many insects can sense smells, temperature, and humidity with their antennae. Some insects, such as bees, can even detect sound with their antennae. The thorax is the middle body part to which the legs and wings are attached. The abdomen contains digestive and reproductive organs. The sides of both the thorax and the abdomen are lined with tiny openings called spiracles, through which an insect obtains oxygen.

INSECT & SPIDER PUZZLES

Activity:

1. Show students the photos of the honeybee and the spider. Ask them which one is which. Most students will be able to tell the difference. However, since both images show creatures that are black and yellow, students will have to use other clues to guide them to understand which is the insect and which is the honeybee.

2. Ask the students how they know which is the spider and which is the honeybee. Make a comparison chart on the board or on chart paper. Guide students to understanding the following:

- Honeybees are insects. They have 6 legs, 2 antennae, 2 compound eyes, and 3 body parts. Most adult insects also have wings.
- Spiders are arachnids. They have 8 legs, 2 body parts, and usually 8 eyes. Additionally, most spiders can make silk (even though not all create a web) so they have spinnerets. Your chart might look something like this:

	Spiders	Insects
Legs	8	6
# of main body parts	2 - cephalothorax, abdomen	3 - head, thorax, abdomen
Eyes	8	2
Other	Spin webs	Sometimes adults have wings (think butterflies and honeybees - but ants don't!)

Assessment:

- Completed student puzzles.
- If you would like an additional assessment, ask students to draw insects and spiders after creating their puzzles. For older kids, have them label the body parts.