WHY DO INSECTS MATTER?

Insects might seem like a tiny part of the natural world, but they play a big part in the health of our planet! Let's learn more about why insects are so important!

Junior Rangers Topic: Animals Objective: Students will be able to discover more about insects, understand typical insect characteristics, and explore insects in nature around them!

What are some things that you know about insects?

When you think of insects, how do they make you feel?

Draw a picture of an insect you've seen outside before!

Fun Fact: Did you know that there are more species of insects on our planet than any other animal? Scientists estimate that between 80-90% of all animals on our planet are insects!

So what exactly is an insect anyway?

Most insects have <u>SIX</u> legs, and <u>TWO</u> pairs of wings. Insects also have a hard outer shell, called an <u>exoskeleton</u> that protects their bodies. The <u>exoskeleton</u> is separated into three distinct parts- <u>head, thorax and</u> <u>abdomen.</u>

Research some different insects and look at their bodies. Draw one below and label the parts of the insect! How are insect bodies different from our own bodies?

Insects also have unique, and often complex life cycles. Sometimes, insects go through a process called metamorphosis, which transforms their bodies into the next life stage. Research an insect and describe its life cycle below.

Let's Go Outside!

Time to discover more about the insects around you! Find a nice spot outdoors- maybe it's your yard, a nearby park, or maybe your favorite tree.

Sit quietly in your outdoor space. For five minutes, focus on the nature around you. Did you notice any insects? What were they doing?

Insects are vital to the health of the planet because they are some of the building blocks on which other animals and plants rely. Try to identify one of the types of insects you observed. Research what roles it plays in the ecosystem! Is it a food source? Does it pollinate plants? Does it help to remove waste? What roles does it play in the food web?

Insect Experience!

Time to go Mothing!

You've observed insects during the day, now. But what happens at night? Mothing is a great way to discover insects that are active at night.

Supplies you'll need:

- A white or light colored flat sheet, or other similar fabric
- A light source- any kind works, even flashlights or battery powered options.
- A smartphone or tablet with the iNaturalist app downloaded

First, find the place where you will observe the night insects & moths. Maybe this is in your yard, or maybe you have an outdoor light you can leave on for an hour or so to observe. Find a way to hang your sheet up- draped over a large tree branch, over a clothesline, or over a ladder or table. The insects drawn in by the light, mostly moths, will land on the sheet. Find a way to have your light facing the sheet, and make sure you are able to plug in your light source, or use a flashlight or battery operated light. As the moths land, remember to look with your eyes, and not to touch or harm the moths. You can use the iNaturalist app to identify the insects!

Draw at least one of the insects you observed below! Were you able to identify what species it was?