

Observing Insects

Estimated Time: 30-45 minutes

SUMMARY

Insects are an extremely common type of animal on the planet but they often go unnoticed. Students will take some time to appreciate insects and see what makes them so special, learning about how insects function.

WHAT YOU'LL LEARN

- Observation skills and notetaking.
- Developing hypotheses.
- Different types of species of insects and their behaviors.

Materials Used per Student	Resources Used
<ul style="list-style-type: none"> ● Paper for notes ● Pencil or pen ● Digging tool (spoon, craft stick, garden spade) ● Glass of water (for the group) ● Leftover food scraps (small) ● Magnifying glass (optional) 	<ul style="list-style-type: none"> ● Access to YouTube (optional) or a streaming service with nature documentaries.

WHAT TO DO

1. Find a grassy place outdoors that's not too wet (insects need air to breathe). With your child, look to see if you can find any insects crawling around in the grass. Tell your child to make some notes about the insects they see, how many, what they're doing, and (if possible) what sort of insect it is. *Leave plenty of room between entries. We'll be adding more notes later.*
2. Using their digging tool, have our child dig down about an inch into the soil. Make some more observations about new insects that they uncover while digging, and about any changes in behavior or new observations compared to insects previously observed.
 - a. Are there underground tunnels that you can find?
 - b. Do the insects crawl away from the hole you dug or are they trying to burrow deeper?
3. Using their fingers, have your child gather some water droplets to drip onto the ground. Don't drop them directly on the insects, but try to get them nearby to encourage the insect to interact with the water. Add any new observations to your previous entries.
 - a. Insects, like all animals, need water to survive so you might observe the insects moving towards the droplets for a drink.

- b. If they move away from the droplet, come up with some hypotheses why insects might avoid dripping water (like rain).
4. Lastly, take the bits of leftover food and place them near the insects. Add any new observations to your previous entries.
 - a. Do the insects move towards the food to eat it?
 - b. Why might they ignore food on the ground next to them? Some insects like grasshoppers or ladybugs are strict herbivores so they might not be interested in human food if it contains meat.
5. Once you are back inside with the students, review what they learned. If there are unanswered questions, or any insect species you couldn't find, take some time to look them up and finalize your notes!

TIPS

- Soil will absorb water, so dripping water onto an impermeable surface like a rock or asphalt can produce better results. You can also bring a piece of plastic with you to drip water on, though in this case it's recommended you let the insects acclimate to the added plastic element before dripping water onto it.
- If you don't have a suitable place to do this observation, or you don't have luck finding insects outside, consider using online videos as a substitute. In this case, find one that features insects and mute the sound so that students can focus on their observations instead of any narration. This approach has the added benefit of being able to re-watch the video with the audio to see how their observations matched up with what the filmmakers wanted to show.
- This is an excellent activity to do multiple times. Try different locations for insect observations, or different times of day. You might see new insects on warmer days as opposed to cool, overcast days, and you will also see different insects as seasons progress. Keeping an Insect Journal of half hour observations is an excellent way to learn about your immediate environment.