

## **Wee Beasties Activity - Schoolyard Field Guide**

"What Insects Live in My Schoolyard, and How Are They Adapted to Live There?"

**Background:** Insect field guides are a great way to learn about insects. Making an insect guide is an even better way to learn about them. To create a schoolyard field guide, students observe insects that they find in a convenient outdoor location near the school, identify and learn about those insects, then create individual pages for each kind of insect. This activity will allow students to learn about the diversity of insects that occur in an urban outdoor setting and also about the ecological roles those insects play and the adaptations that they use to live in their environment.

**Grade:** 5-7

**Setting:** Outdoor and classroom

**Time:** 1-2 hours total outdoor observation, plus 3-4 total hours for indoor research and creation of the field guide

**KERA Content:** This activity addresses the following KERA content statements under Core Content for Science Assessment, Grades 5-7:

- SC-M-3.1.1
- SC-M-3.2.1
- SC-M-3.5.2

**Materials:** Notepads for outdoor observations, one for each student. Multiple insect field guides for research and reference. Copies of the "field guide entry sheet," one for each student. Pens, pencils, and crayons to draw pictures of each insect. Hole punches and a 3-ring binder to assemble the field guide.

Some recommended insect field guides for this activity:

**Peterson Field Guide: Insects** – by D. Borrer and R. White  
**Simon & Schuster's Guide to Insects** - By R. Arnett Jr. & R. Jacques Jr  
**Golden Guide Series: Spiders and Their Kin** – by H. Levi and H. Zim  
**Golden Guide Series: Butterflies and Moths** – by R. Mitchell and H. Zim  
**National Audubon Society Field Guide to North American Insects & Spiders** – By L. Milne and M. Milne

## ACTIVITY PLAN

1. **FIRST CONTACT:** In a suitable outdoor location, preferably one that is close to the school and where grass, weeds, or other plants are growing, allow students to search the landscape for insects. Each student should find 2 or 3 insects that interest them and make observations and drawings of the insects.

Questions students should keep in mind while making observations (it will not be possible to answer all of these questions) should include:

1. How does the insect move?
2. What does the insect eat?
3. Where does the insect spend its time? In the air? On a plant? On the ground? If it stays on a plant, what does the plant look like?
4. What is unusual about the way that this insect looks?
5. Does the insect make any noise? What does it sound like?
6. How does the insect react when other animals approach it?
7. What are the weather conditions today?
8. Is this a sunny or shady spot most of the time?

2. **RESEARCH:** Using their observations and drawings, students can now reference field guides to identify their insect and learn more about their behavior, structures, ecological role, and other features. Based on this research, have each student decide on 1 insect (out of the 2-3 that they observed outside) for which they will be responsible. Try to make sure that each student has a different insect so that the field guide will cover as many types as possible.

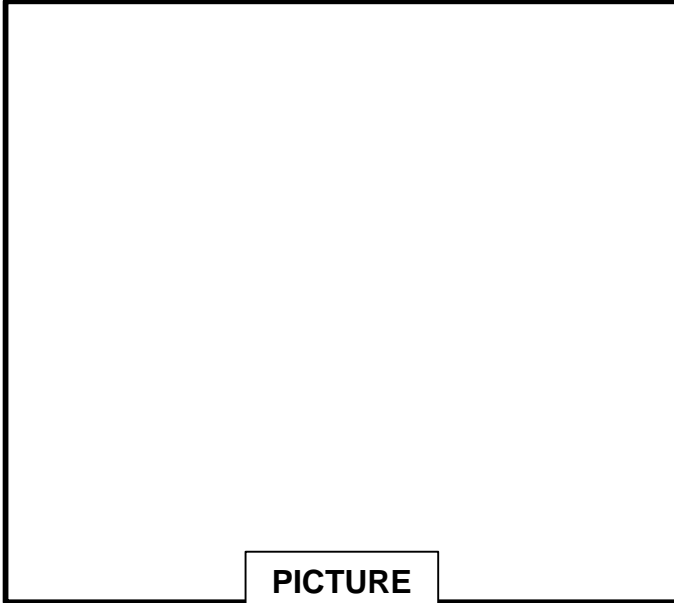
**Identification Tips:** Don't worry about trying to identify specific insect species - this is difficult even for experts. Instead, students should try to determine what the common name of their insect is to the best of their ability using pictures from the guide. This is why it is a good idea to start with 2-3 insects and then narrow it down to 1 insect. It is likely that at least one of their choices will be easy to identify using the field guides

3. **FURTHER OBSERVATIONS:** Now that each student has picked an insect, have them return to the same outdoor location, try to find their insect again, and make further observations. Even if they cannot find the insect, have students return to the place or places where they observed their insect the first time and make observations about the habitat, such as: what kind of plants grow there?, is it close to a building?, etc.

4. **CREATE FIELD GUIDE PAGES:** Using information from other field guides along with their own observations, have each student make a field guide page for their insect using the attached form. In the space for the picture, students should draw and color a picture of their insect using their observations and drawings that were made outside, plus help from professional field guide pictures.

5. **COMPILE THE FIELD GUIDE:** Assemble the completed field guide using a 3-ring binder and a hole punch. To make an even better field guide: keep adding each year, having each crop of students finding new insects for the guide!

## FIELD GUIDE TO INSECTS IN OUR SCHOOLYARD



YOUR NAME:

INSECT NAME:

What does this insect eat?:

Where does this insect spend most of its time?:

What animals like to eat this insect?:

How does this insect find or hunt for its food? What body parts are used by this insect use to catch, find, or eat food?

How does this insect defend itself against predators? What body parts, behaviors, or colors does this insect use to escape predation?

Is this insect dangerous to people? How?

What was this insect doing when it was observed?

Is there anything else interesting or unusual about this insect?