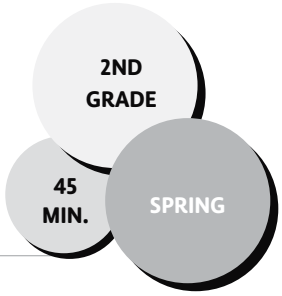
Insect Homes

THEME: EXPLORING THE ECOLOGY OF FOOD



ESSENTIAL QUESTION

How can we create a habitat for the important creatures in our garden?

LEARNING OBJECTIVES

✓ Students will be able to explain the importance of habitat for living creatures.

✓ Students will be able to build habitats in the garden appropriate for insects.

CONCEPTS

beneficial insect habitat structure

ENGAGING THE CLASSROOM TEACHER

- During Action Step 3, suggest that the teacher circulate through the garden to support students in building their structures.
- During Action Step 4, as more students move to the welcome sign station, suggest that the teacher supervise that station.

LESSON DESCRIPTION

In this lesson, students will learn what makes an appropriate insect habitat, and then construct homes in the garden. This lesson can be taught in conjunction with lessons Be a Bee! and Planting for Beneficial Insects.

MATERIALS

- ☐ Beneficial Insects Poster (p. 277; optional)
- ☐ How to Build an Insect Home Poster (p. 396)
- ☐ Natural building materials (see Preparation)
- ☐ Craft materials for welcome signs such as cardboard, found sticks, and permanent markers of various colors

PREPARATION

- Create a model insect home.
- Create a model welcome sign.
- Photocopy How to Build an Insect Home Poster.
- Gather some natural and found materials for students to use to make their insect homes such as twigs, straw, bamboo, twine, stones, old cement pavers, toilet paper tubes, etc.
- Set up two stations in the garden: one where students will access the insect home materials and one where they will access the welcome sign materials.

ACTION STEPS

1. Engage: Gather students in a circle, and hold up your model insect home and ask, *What do you think this might be? (It's a home for insects!) What about this object might make it a good home, or habitat, for garden insects?* Tell them that today they'll get to be architects and builders for the living creatures in our garden.

Ask, *If you were an insect, what kind of home would you like to have? What would you need to have in your home or nearby?* Have students turn and talk to their neighbor and then discuss as a class. ***(5 min.)***

2. Explain the Activity: Remind students, *There are many helpful insects that help our garden grow and thrive. We call these beneficial insects.* Here, you may want to show students the Beneficial Insects Poster. *In what ways can insects help our garden? If insects have a safe, comfortable space to live, with easy access to the things they need, we'll likely have more and more of them in our garden!* Display the How to Build an Insect Home Poster, go over steps, and discuss possible design ideas, for example a lean-to with found bark. ***(10 min.)***

3. Building Insect Homes: Before setting students free, go over places where students can build and places that might be off-limits for students. Also discuss materials in the garden that students may harvest or utilize for their buildings. Give students the option to work independently or in pairs or triads. As students are building, walk through the garden to ensure they're working safely, and provide guidance and support to those who need it. ***(15 min.)***

4. Making Signage: Encourage students who finish early to make a welcome sign for the beneficial insects in the garden, such as "Make Yourself at Home" or "Help Yourself to the Flowers!" ***(10 min.)***

REFLECTION

Have students discuss the following questions in small groups, then share with the class: ***(5 min.)***

Social and emotional learning

- *Ask yourself: Was I safe and respectful in the garden today?*

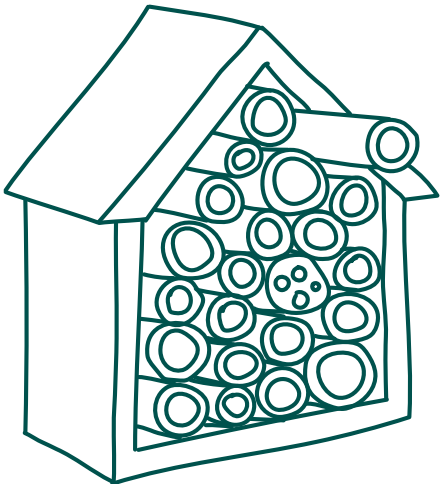
Check for understanding

- *Why is it important for living creatures to have a habitat?*
- *How does it benefit us to create a home for the living creatures in our garden?*
- *What did you include in your home that you think will attract insects?*

ADAPTATIONS

Large-Scale Variation: If you have permission at your school to create a more permanent structure, your group can create an Insect Hotel! Prepare by stacking wooden pallets and/or cinder blocks horizontally in your designated area. Then, during class time, have students stuff materials into various parts of the structure.

Mason Bee Extension: To make mason bee hotels, have students, supervised by adults, take turns drilling holes into wood blocks. The holes should be 6″ deep and 5/16″ wide.



Insect Food Extension: Bring in reference materials showing what different insects eat, and then invite students to gather insect food for their insects and place it in or around their homes.

Take-Home Extension: Give each student a toilet paper roll, and invite them to build a small insect home inside it to take home to increase insect habitats around students' homes.

Follow-Up: A month after building insect homes, have students perform a census, going around to the different insect homes to see who has taken up residence. Have students identify and count each living creature and then create a class chart.

ACADEMIC CONNECTIONS

Next Generation Science Standards, Life Science Disciplinary Core Idea

NGSS LS4.D

Biodiversity and Humans

There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)

NGSS K-2.ETS1.B

Developing Possible Solutions

Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people (K-2-ETS1-2)

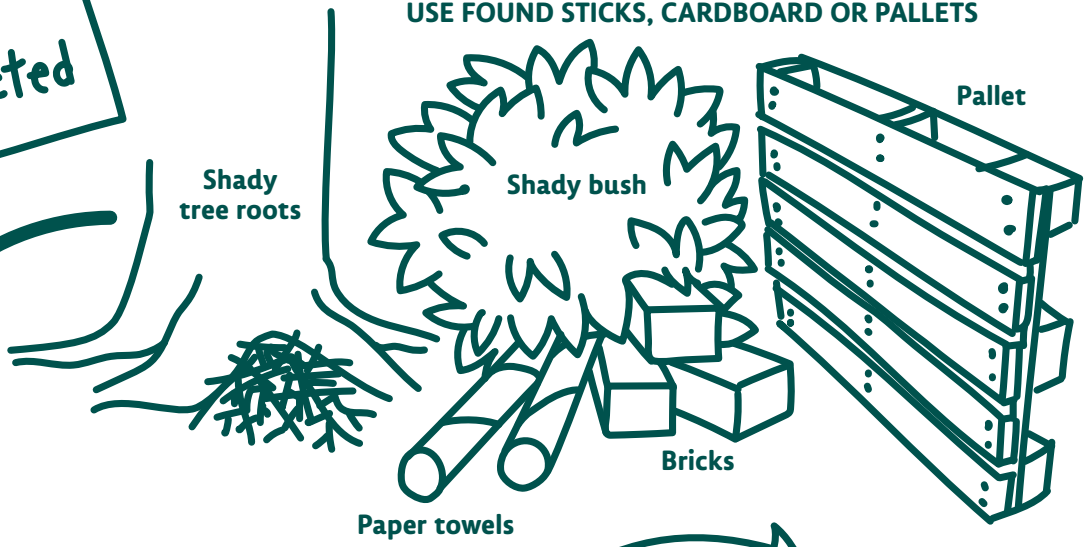
How To Build An Insect Home

STEP 1
Find a good spot

- ☑ cool
- ☑ moist
- ☑ shady
- ☑ protected

STEP 2
Create a structure

USE FOUND STICKS, CARDBOARD OR PALLETS



STEP 3
Fill with gathered materials

- **DEAD WOOD & ROTTING BARK** | Where beetles, centipedes, spiders, and woodlice love to be
- **HOLLOW STEMS** | For solitary bees
- **STONES & TILES** | Cool, moist place for newts and frogs
- **DRY DEAD LEAVES** | Warm place to burrow

Third Grade

LESSONS