

Activity 7: Pit Stops



Have you ever gone hunting? Get ready, because in this activity you will be a hunter of very small game: insects. You won't have any trouble finding them. There are over 1 million different kinds! There are many ways to capture insects. In this activity you make and use a pitfall trap to collect insects that walk on the ground.

MAKE it Pitfall Trap Tool Kit

- 3 plastic or foam cups
 - Paper clip
 - Bait (bread, fruit, lunch meat)
 - 3 small pieces of board
 - Small rocks
 - 3 containers
 - Trap Table data sheets
- Ask your helper to punch a few small holes in the bottom of your three cups with an open paper clip. This allows water to drain out.

FACT! Featherwing beetles are among the smallest known beetles. Some are less than 0.039 inches long.

DO it Pitfall Trap

Choose three different habitats to place your pitfall traps. Examples of habitats are in a lawn, under a tree or shrub, near water, in a ditch, in the woods.

- Ask for help to dig three holes and set the cups in them. Position the top of the cup even with the soil surface.
- Place your bait in the bottom of each cup. Use the same bait in each cup.
- Place a board over the top of each cup. Elevate the board above the ground by placing small rocks under it. This leaves space for insects to walk under and reach the cup.
- Empty each cup into another container each day for three days. Count the insects and other organisms collected and record them in the Trap Tables (or make your own). Add bait if necessary.
- Count the number of beetles, ants, and crickets that you collect. Ask for help if you are not sure how to identify them.

Trap Table 1

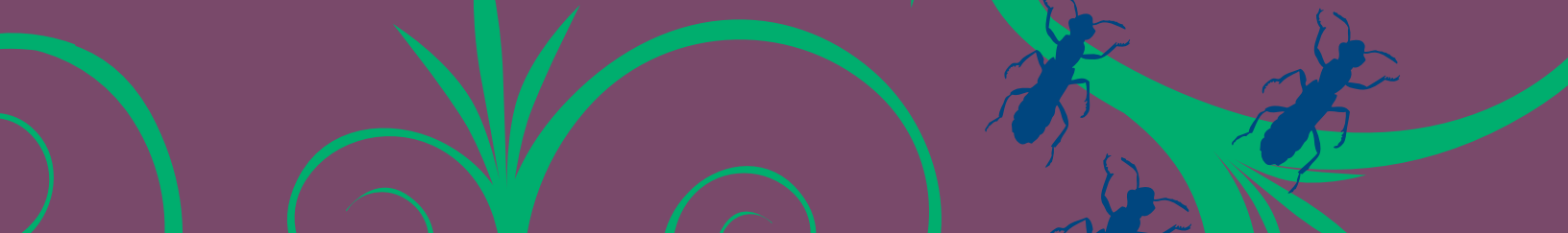
Location: _____

Bait: _____

Date set: _____



| Date examined | Total number of insects | Beetles | Ants | Crickets | Other |
|---------------|-------------------------|---------|------|----------|-------|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |



Trap Table 2

Location: _____

Bait: _____

Date set: _____

| Date examined | Total number of insects | Beetles | Ants | Crickets | Other |
|---------------|-------------------------|---------|------|----------|-------|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |

Trap Table 3

Location: _____

Bait: _____

Date set: _____

| Date examined | Total number of insects | Beetles | Ants | Crickets | Other |
|---------------|-------------------------|---------|------|----------|-------|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |

Dig Deeper

- Use different kinds of bait.
- Collect insects in different habitats.
- Collect insects at different times of the year.
- Learn how to use insects to make a collection at www.4-H.org/curriculum/entomology.

Life Skills

ENTOMOLOGY SKILL: Collect insects using a pitfall trap.

SCIENCE STANDARD: Learning a collecting skill.

SUCCESS INDICATOR: A collection of ground walking insects.

Talk It Over

SHARE WHAT HAPPENED:

- How many insects did you collect?
- Did you collect different types of insects in different places?

APPLY: How could a pitfall trap be used to choose the best place to put a sandbox?

GENERALIZE TO YOUR LIFE: Why is it important to collect data from different habitats?

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