



# OUTDOOR WILDLIFE AWARD



## PROJECT: **INSECTS**

### GOALS

**A. INSECT FACTS:** Identify four different **insects** and four characteristics of all **insects**.

**B. INSECT CHALLENGE:** Complete one of three.

### **A. INSECT FACTS**

**Insect Examples** (Identify four.)

- ant, butterfly, cricket, ladybug, fly, mosquito, honeybee

**Insect Characteristics** (Identify four.)

- has an exoskeleton (hard outer shell)
- has at least six legs
- generally has one or two pairs of wings
- has three body sections: head, thorax, abdomen
- has a pair of antennae and external mouthparts

### **B. INSECT CHALLENGE**

Choose one of the following options to learn about insects.

#### **Option 1—Butterfly Care**

Order butterfly caterpillars and house them until they create a chrysalis, or find a caterpillar in the wild and keep until they emerge.

#### **Supply Checklist**

- jar with holes in lid or mesh cage for butterfly
- caterpillars
- butterfly food (made of leaves or sweet nectar provided in kit)

#### **Step 1—Obtain Caterpillars**

Order a Butterfly kit online or catch a local caterpillar. Make sure you identify the type of caterpillar you catch using a local field guide. If you order a kit, it may come with a mesh cage and food for the caterpillar, allowing it space to create its chrysalis before it emerges as a butterfly. If not, create your own using the instructions below. Timing on butterfly development will vary by species.

#### **Step 2—Make a Caterpillar House**

Fill a large jar with leaves and pebbles or dirt at the bottom. Drill holes in the lid of the jar with a hammer and nail or a small handheld drill.

Make sure the caterpillar has plenty of food; you will watch the caterpillar grow, molt, and shed its skin. Eventually the caterpillar will attach to a branch or to the lid of the jar and hang upside down. It will make a hard shell called a chrysalis and, after a period of time, emerge as a butterfly!



## Option 2—Insect Habitats

Go on a 30-minute nature hike and observe at least three of the following habitats.

### Supply Checklist

- book on insects for the area
- pen
- notebook
- camera

Look for the following types of habitats (you may locate more, but this should get you started).

**FUN FACT:** When dragonflies are in the “nymph” stage, they live underwater and are amazing hunters. They swim quickly and will hunt other larvae, tadpoles, and even small fish!

1. *Trees and Shrubs:* Beetle larva tracks are found on tree trunks or branches. Galls are found on leaves, a build up of plant material where larva has been laid. Also look for the eating track of a grub or larvae on a leaf or a bark beetle that will eat through just below the bark of a tree.
2. *Ant Habitat:* Look for anthills in dirt areas, cracks in a sidewalk, or a park. If you are in a wooded area you may look for large piles of pine needles that can be several feet tall. Inside the mound is an intricate set of trails for the wood ant.
3. *Fresh Water:* Some insects skim across the surface of water. Some fly above it, some swim below it, and others crawl around in the dirt beside it.
4. *Leaf Piles:* You might find bugs that love the dead leaves, or those that live in the dark area below such as beetles, wood lice, centipedes, or millipedes.
5. *Grass and Flowers:* Look in the grasses and flowers for bugs. You might find things like ladybugs, bees, butterflies, and hoverflies. They like the sweet nectar from the flowers!

## Option 3—Insect Catch

Make one of the following house for insects and keep your insect for one week. Be sure to release any insects you caught after one week. Choose a bughouse, cricket house, or an ant farm.

### Option 1-Bug House

Create a makeshift bug house using plastic containers, mesh, sticks, and rubber band.

### Supply Checklist

- 2-liter bottle, gallon milk jug, or milk carton
- mesh material such as part of a screen, fabric mesh, or nylon stockings cut open
- rubber band
- sticks, leaves, and plants

1. Cut off the top of the carton.
2. Add sticks and leaves.
3. Add your creature carefully and cover the top with mesh.
4. Secure the mesh with a rubber band.
5. Observe for one week and release.

1-Bug House



## Option 2-Cricket Cage

### Supply Checklist

- plastic jar
- hammer and nail
- flower pot
- dirt, lettuce, leaves

1. Find a plastic jar (old peanut butter container, etc).
2. Drill air holes into the bottom of the plastic jar.
3. Gather a flower pot and fill with dirt.
4. Place the jar upside down in the flowerpot with the airholes facing up.
5. Place your cricket inside the jar carefully.
6. Feed your cricket lettuce, leaves, corn meal, or bread.
7. Observe for one week and release.

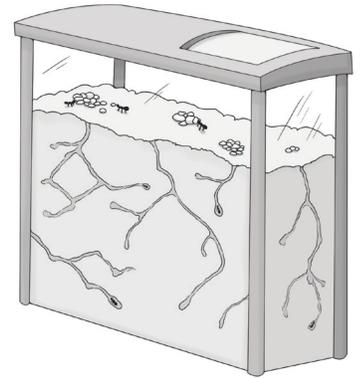
## 2-Cricket House



## Option 3-Ant Farm

1. Purchase an ant farm from a local educational or nature store.
2. Follow direction to fill farm with sand.
3. Add ants to farm and close container.
4. Observe behavior for one week.
5. Note the ant's interaction, digging habits, and eating habits.
6. Create your own food from corn meal, a few drops of honey, small bits of meat, or breadcrumbs.

## 3-Ant Farm



## RESEARCH MORE

- *Bug Hunter* by Smithsonian Institution
- *Junior Scientists Experiment with Bugs* by Susan H. Gray
- Find a field guide for insects in your region at the library.
- To identify an insect, take a photo of it and upload to Google Images to get a match.

*My child has successfully completed the Project Goals for the topic–Insects.*

Adult Signature: \_\_\_\_\_ Date: \_\_\_\_\_

*(Complete SIX projects to earn your WILDLIFE award)*