



4-H ENTOMOLOGY ACTIVITY PAGE

Developed by **Justin Crowe** and **Natane Davis**, Extension Agents, Davidson County

Beginning

Your 4-H ENTOMOLGY Project



You have to make decisions every day. Some are fun, some are simple and some are hard to make. This 4-H project will help you learn how to make decisions as you work with insects of all kinds. Some of the skills you can learn and activities you can do in this project are listed below. Check your favorites. Then, work with your 4-H leaders and parents to make a 4-H project plan of what you want to do and learn this year. If you haven't already done so, start a project folder that includes your project activity page, supplemental pages, your project plan and any other activities that you complete.

- Learn to identify which animals are arthropods.
- Learn to find and observe insects.
- Create an insect collection.
- Increase your vocabulary of terms used in entomology.
- Complete a service project using entomology skills learned.
- Give an entomology demonstration in the 4-H club meeting.
- Other _____



Life Skill
Ethical
Decision
Making

Starting a Collection

For a safe way to start an insect collection, get a copy of the beginning-level Entomology Supplemental Page from the Tennessee 4-H Web page (the address is on the back of this page). If you need help, ask your 4-H agent or volunteer leader.

Bug Hunt

Where can you find insects? Lots of places! Look . . .

- In the air for flying insects on warm days from early spring to late fall.
- On a wide variety of vegetation, during both day and night.
- Around street lights, porch lights and lamps.
- In woodpiles, especially in spring and early summer.
- In the soil.
- On (or in) fresh or decaying fruit.
- On domestic animals for parasitic insects such as fleas and lice.
- Along the edges of rivers, streams, lakes or ponds and in the water.
- In buildings—windows, flour bins, cereal packages, closets or boxes where clothing and old papers are stored.

In your 4-H project folder, record where you find insects. Use the Internet, books or other sources to identify some of the insects. Share what you learn in a 4-H meeting.



Many people enjoy playing with lightning bugs (or fireflies). If you decide to catch these glowing creatures and put them in a jar to light up your room at night, be sure to put a few holes in the metal top of the jar.

Here's the Buzz

- To make one pound of honey, a bee must tap two million flowers!
- A worker honey bee makes 1/12 teaspoon of honey in her lifetime!
- A honey bee flies 15 miles per hour.



Try This—Make an Insect Model

Materials:

Use natural materials, for example, twigs, rocks, stones, leaves, pinecones, nuts, etc.

You will need glue or use a hot glue gun to put the pieces together.

Use a camera to make a photo for your folder.



Procedure:

Find a photo of an insect or observe a real insect. Make your model of the insect using the natural materials you've gathered. Try to keep the parts in scale, so that the model is the same size as the real insect.

Use the Internet, books or other sources to identify the parts of the insect. Label the parts on your model.

Take a picture and put it in your project folder. Share your model with others.

Cricket Thermometer

Did you know that a cricket can tell you the temperature? The hotter it is, the faster a cricket chirps. To test this for yourself, you'll need a watch with a second hand and a cricket. Have someone help you; one person will be the timer and the other the counter.

1. Count the chirps for 15 seconds. *How many chirps did you hear?* _____
2. Add 39 to the number of chirps you counted to calculate the temperature. _____ + 39 = _____ ° F
3. Now tell someone what the temperature is and how you figured it out! You may be a degree or two off the actual temperature . . . but you're close!

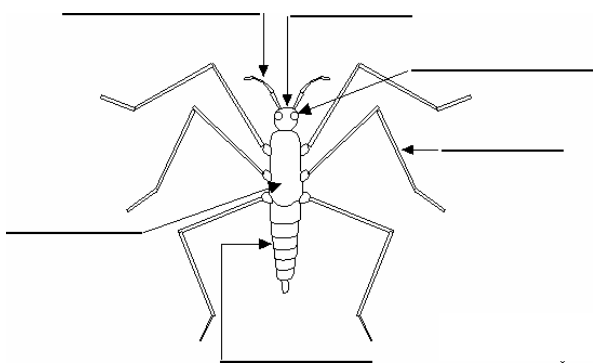
4-H ENTOMOLOGY ACTIVITY PAGE

Service Ideas

- Visit a local nursing home and give your 4-H speech about insects. Be sure to carry some specimens in a plastic jar for show and tell.
- Work with a local daycare and help each child make an insect collection. Be sure to get help from adults since you will be using pins.
- Work with a beekeeper to provide jars of honey for family members, friends or neighbors.

Label the Insect

Label the diagram of the insect below with the different insect parts.



- | | |
|--------------|--------|
| ABDOMEN | HEAD |
| ANTENNA | LEG |
| COMPOUND EYE | THORAX |

Don't forget to submit your project report to your 4-H leader.

Career Scavenger Hunt

By asking others, researching on the Internet, or reading a book or magazine—search for a job that uses entomology skills and knowledge. Here's what you are looking for.

1. Job Title _____
2. Job Description _____

3. Education Required _____

Entomology Search

Listed below are words related to entomology. Use the Internet, books or other sources to find out more about each word and how it relates to your 4-H project. Record what you learn in your 4-H project folder and share it with others. Then, search for the words in the puzzle.

ABDOMEN	F B I M N E M O D B A M I J
ANIMAL KINGDOM	E N S O T U W D O D B A N W
ANTENNAE	X Y E D P H M X S A O N S W
ARTHROPOD	O G C G F U O L X E A D E U
BEEES	S O Y N W Y S R U L E I C Z
BUG	K L H I D L Q G A J N B T D
BUTTERFLY	E O D K V F U D W X N L S O
DIURNAL	L M L L G R I D E G I E G P
ENTOMOLOGY	E O L A D E T K K P A S N O
EXOSKELETON	T T E M B T O D E V U J I R
INSECTS	O N U I U T E K R F S P W H
LARVA	N E Z N G U S A V L Q K A T
MANDIBLES	A E K A T B L A N R U I D R
MOSQUITOES	W V N X E A N N E T N A R A
NET	
PUPA	
THORAX	

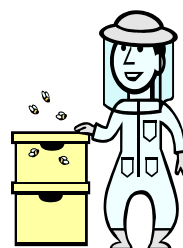
Additional Resources

Making decisions is an important part of the entomology project. This activity sheet has given you the opportunity to explore things to think about as you make decisions in entomology. You've learned the parts of an insect, started an insect collection and made a model of an insect. But this is just the beginning! Use the resources listed below to continue learning about entomology.

- School & public libraries
- Beekeepers and other people who know about insects
- 4-H project groups
- The 4-H entomology Web page:

<http://4h.tennessee.edu/projects/entomology.htm>

For more ideas, contact your 4-H office.



Other 4-H Entomology Activities

- 4-H demonstrations
- 4-H exhibits
- Judging teams
- 4-H beekeeping essay contest
- Fair entries

Reviewed by John Skinner, Professor, and members of the state 4-H Youth Development staff
 Edited by Lori Jean Mantooth, Extension Assistant, and Wanda Russell, Publications Editor