

Adams County Mini 4-H

Bugs & More Bugs



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Draft Developed by:
Purdue University Cooperative Extension Service
Area 7 4-H Youth Development Educators from
Blackford, Delaware, Fayette, Franklin, Henry, Jay,
Madison, Randolph, Rush, Union, & Wayne counties



Mini 4-H Parent's Page



Welcome to the Mini 4-H Program! Mini 4-H is designed for youth to explore a variety of project areas.

Your child received this project manual when enrolling in Mini 4-H. This manual will provide fun, age-appropriate learning activities throughout their year(s) in Mini 4-H and their interest in this project.

As a Mini 4-H parent, your job will be to guide and encourage your child through the activity. It is highly suggested that you do not complete the activities for them. Instead, help them, guide them, work with them, and let them do all that they possibly can. The 4-H motto is "learn by doing" and is the best educational tool that we can provide for youth.

Additionally, the Mini 4-H program is set up to allow your child to exhibit a project at the 4-H Fair. This project is based upon information within this manual.

The 4-H Fair is an exciting time for 4-H members and families. It is a time that allows community youth to showcase their talents, interests, and enthusiasm for learning.

Mini 4-H is fun! Your child will certainly enjoy it. You can have fun too, by guiding and helping as your child participates in the program. Encourage and praise your child as he/she has fun learning and sharing with you.

If you have any questions regarding Mini 4-H or other 4-H programs, please contact your local Extension Office.

Developed by Area VII Extension Youth Educators
Purdue University Cooperative Extension Service



Mini 4-Her's Page



Welcome to Mini 4-H! You are now a member of the 4-H family. You are a special person.

Mini 4-Hers have lots of fun! There are lots of activities for you to explore. You can try new things. You can share it with your friends and family.

Mom, Dad, or another adult can help you with your project. Bring your project to the 4-H Fair and lots of people will be able to see what you have done. You also get a ribbon made just for Mini 4-Hers.

Things to Know About 4-H

The 4-H Symbol:

A four-leaf clover with an "H" in each leaf.

The 4-H Colors:

Green and white

The 4-H Motto:

To make the best, better.

The 4-H Pledge:

I pledge my HEAD to clearer thinking,
my HEART to greater loyalty,
my HANDS to larger service, and
my HEALTH to better living, for my club,
my community, my country, and my world.



Bugs! Bugs! Everywhere You Look!

Almost anywhere you look you can find bugs. Some bugs crawl on the ground, and some bugs fly in the air. Most bugs are outside, but some bugs might be in your house. There are bugs that have lots of color and are easy to see. Other bugs look like the things around them and are very hard to see. Some bugs make noises, and some bugs are so quiet you may not even know they are around.

Most bugs are **insects**. An insect has 3 body parts and 6 legs. The 3 body parts are called the **head**, **thorax**, and **abdomen**. The head is the first part. The head usually has the eyes and the feelers or **antennae**. The thorax is the middle part where all 6 legs are attached. The abdomen is the very last part. The abdomen is like your tummy. If the bug is a girl, the abdomen is the part of the insect that contains the eggs.



Activity 1—What Makes an Insect

Things you need:

- Insect Body Parts Activity Page
- Insect Body Parts Activity Page 2
- Crayons or markers
- Scissors
- Stapler

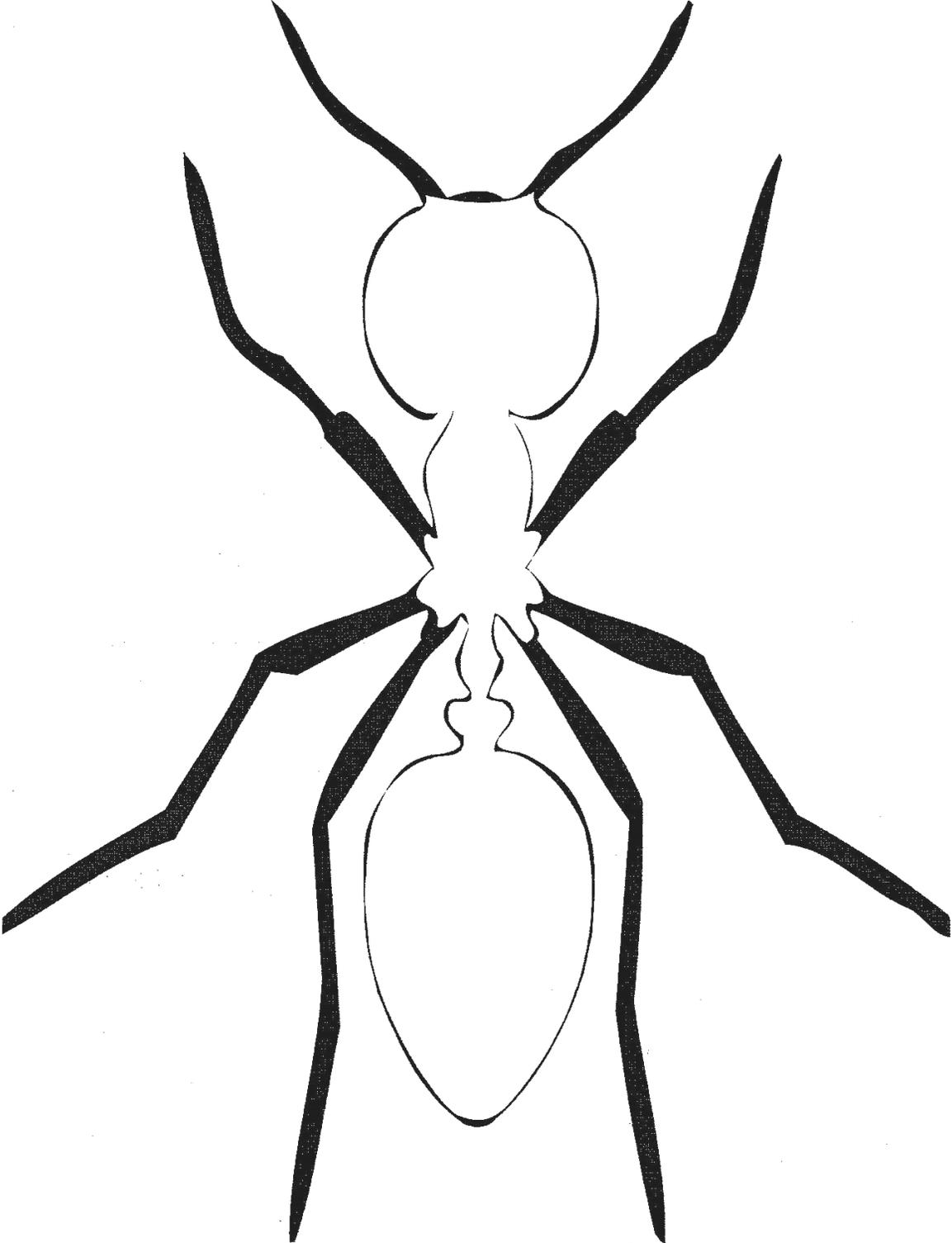
What you do:

1. Color the insect on the Insect Body Parts Activity Page.
2. Cut along the dotted lines on Insect Body Parts Activity Page 2.
3. Lay the Insect Body Parts Activity Page 2 on top of the Insect Body Parts Activity Page.
4. Staple where you see this 
5. Fold back each flap, one at a time, to make a door so you can see the part of the insect the word on the flap is naming.

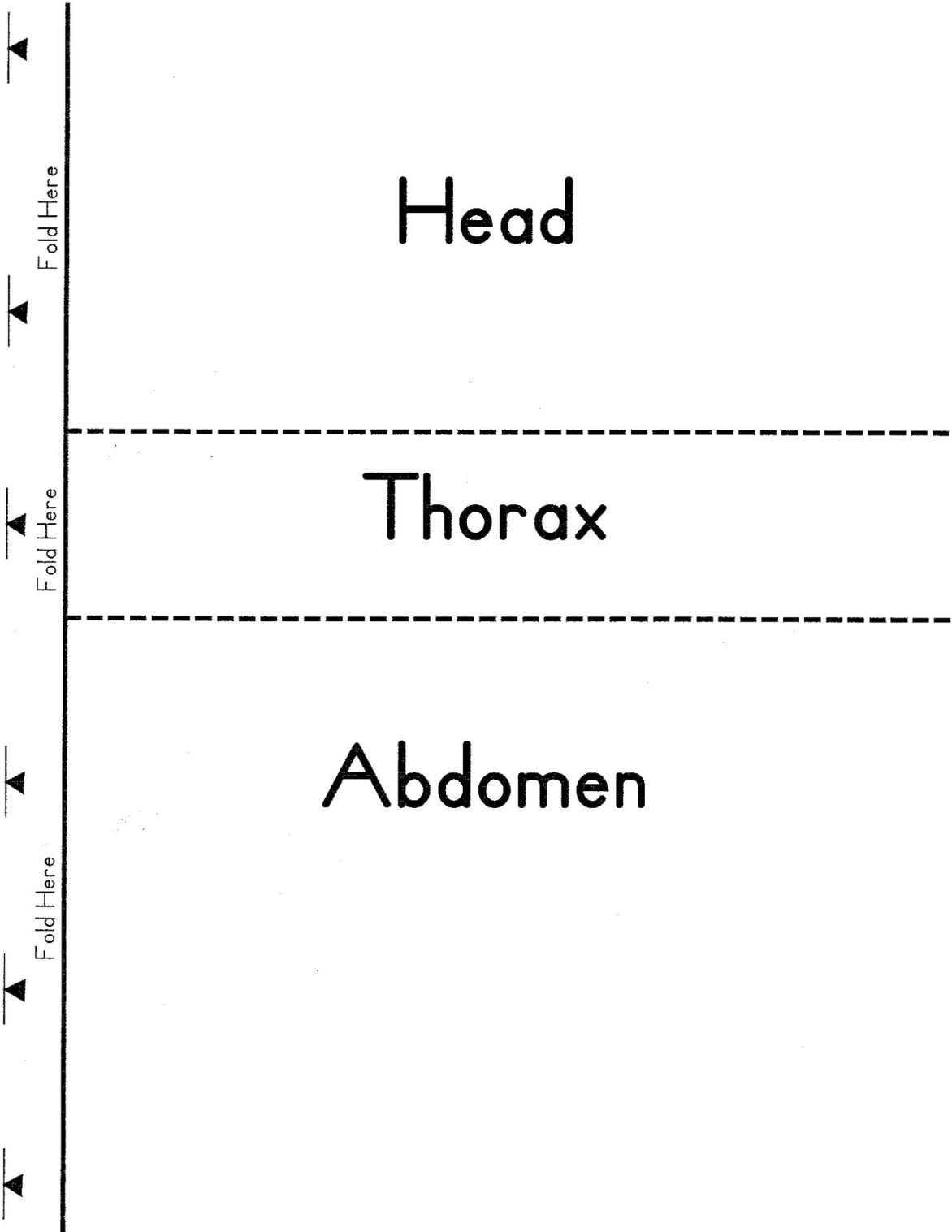
STRETCHERS

1. Encourage children to compare their own body parts to the body parts of an insect. Compare the number of legs, where legs are attached, etc.
2. Encourage children to scurry like a spider, float like a butterfly, and leap like a grasshopper. How many more ways can you think of that bugs move?
3. Using the tune of "Head, Shoulders, Knees, and Toes" sing the words "Head, thorax, abdomen, legs. Head, thorax, abdomen, legs. Head, thorax, abdomen, legs. Insects are our friends." Be sure to point to each body part as you sing it.

Insect Body Parts Activity Page



Insect Body Parts Activity Page 2



Activity 2—Spiders Are Not Insects

What about spiders? Are spiders insects? In Activity 1 we learned that insects have 6 legs and 3 body parts. Spiders are not insects because they have 8 legs and 2 body parts. The first body part of an insect is the head and the second body part is the thorax. The head of an insect and the thorax of an insect are two different body parts. But the head and the thorax of a spider are made together and are only one body part. This body part is called the **cephalothorax** (SEF ah low thor ax). The legs of a spider are attached at the cephalothorax. The abdomen of the spider has **spinnerets** and the part that lays the eggs. The spinnerets have tubes in them. Spiders make webs from the silky fiber that comes out of the spinnerets.

Things you need:

- Spider Parts Activity Page
- Spider Parts Activity Page 2
- Crayons or markers
- Scissors
- Stapler

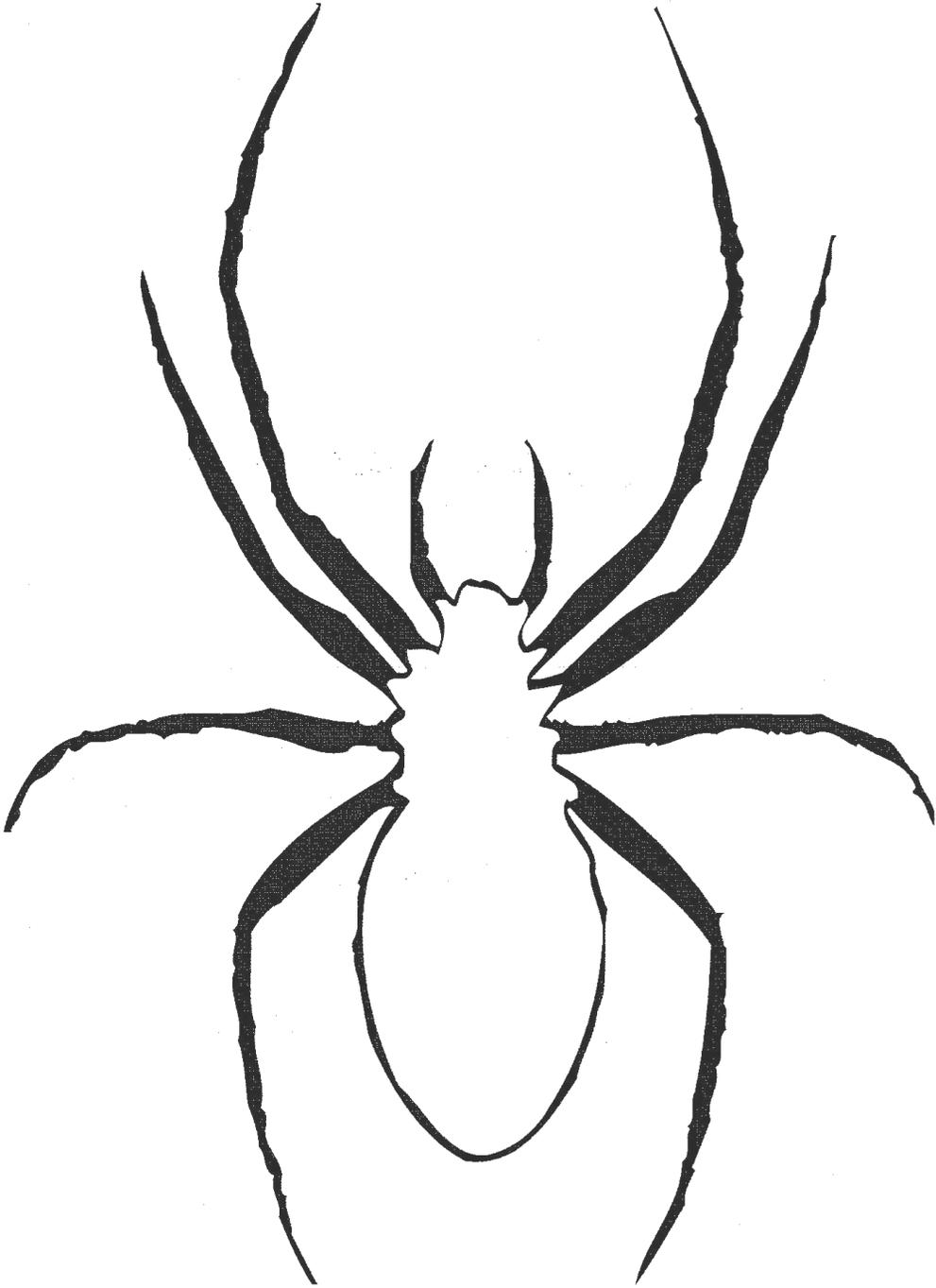
What you do:

1. Color the spider on the Spider Parts Activity Page.
2. Cut along the dotted lines on the Spider Parts Activity Page 2.
3. Lay the Spider Parts Activity Page 2 on top of the Spider Parts Activity Page. Staple where you see this 
4. Fold back each flap, one at a time, to make a door so you can see the part of the spider the word on the flap is naming.

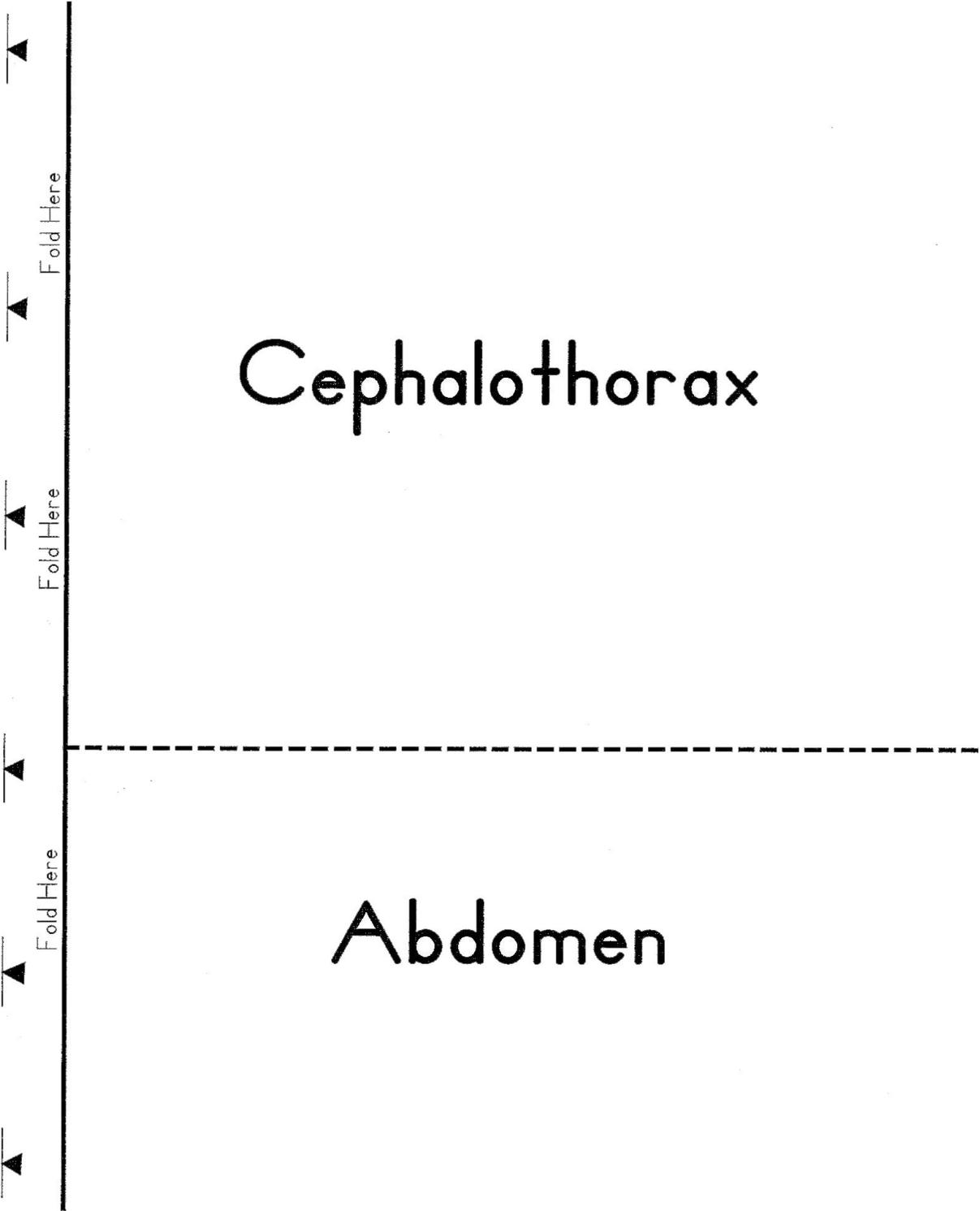
STRETCHERS

1. Create math problems using insects and spiders. For example ask how many legs there would be if you caught 3 insects and 1 spider. Answer is 26 legs. Insect legs equal 18 (3 times 6) plus 8 spider legs.

Spider Parts Activity Page

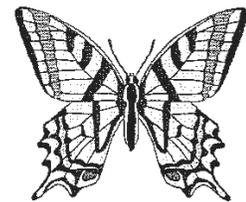
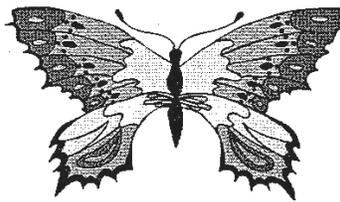
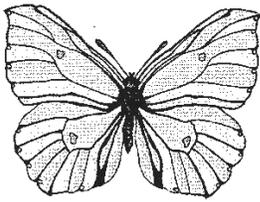


Spider Parts Activity Page 2



Activity 3 – Make a Butterfly

Most bugs have the same color and design on the left side and on the right side. If a bug has a blue stripe and a red dot on the left side, the bug will usually have a blue stripe and a red dot on the right side, too. Make your own symmetrical butterfly below.

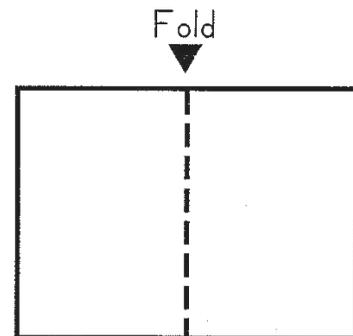


Things you need:

- **Butterfly Symmetry Activity Page**
- Scissors
- Chenille stems
- 8 1/2 x 11" construction paper
- Several colors of paint
- Scotch tape

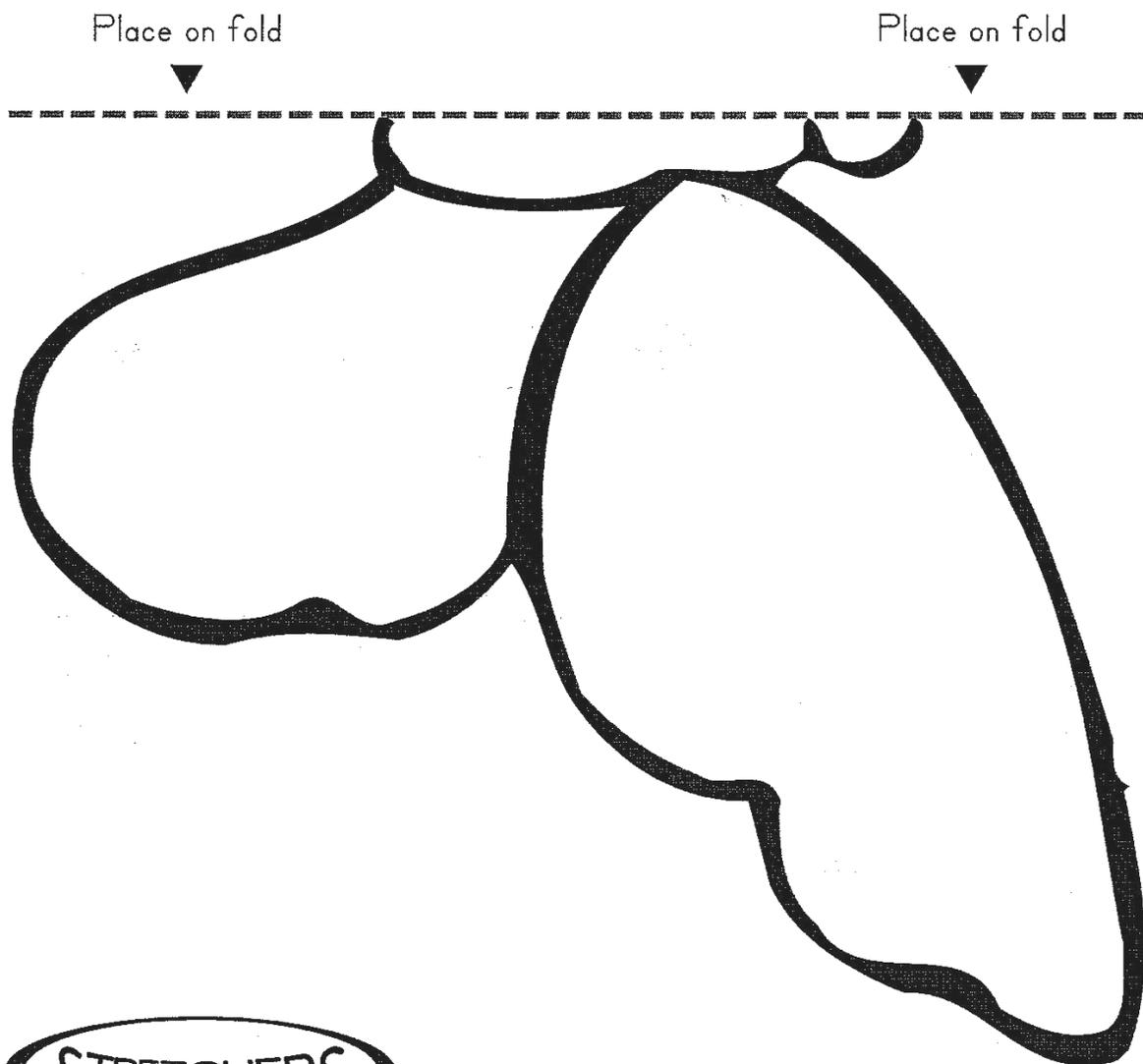
What you do:

1. Fold construction paper in half like a book.
2. Cut the **Butterfly Symmetry Activity Page** along dotted line. Place the **Butterfly Symmetry Activity Page** on top of the folded construction paper. Be sure the cut edge is on the fold.
3. Cut the butterfly shape out. Be sure not to cut along the fold where the body of the butterfly is.
4. Unfold the paper. You should have a butterfly shape. Carefully add dots of colored paint to make a design on one wing of the butterfly.
5. Carefully, press both wings together. What happened to the design you made with paint on one of the butterfly's wings? Is your butterfly symmetrical?
6. Finish your butterfly by taping on chenille stem antennas.



Butterfly Symmetry Activity Page

Butterfly Symmetry Activity Page



STRETCHERS

1. Make a variety of butterflies. Use yarn to connect them to a wire hanger to create a mobile of butterflies.
2. Encourage children to create a diorama in a shoebox for their bug. Use things from nature to make it realistic.

Activity 4—Bugs That Live Alone

Many kinds of bugs live most of their lives by themselves. Butterflies and spiders are examples of bugs that live alone. Butterflies take shelter under leaves and in bushes to protect themselves from the wind and rain. Butterflies flit all around and don't really have a place they call home. Butterflies start their lives out as eggs. When the eggs hatch a caterpillar comes out. The caterpillar eats and eats until it gets big. Then the caterpillar makes a **chrysalis**, (KRIS a lis) a sort of cocoon or pouch, around itself where it stays until it becomes a butterfly. The butterfly's wings are wet when it first comes out of the chrysalis so the butterfly has to dry its wings before it can fly away.

What you need:

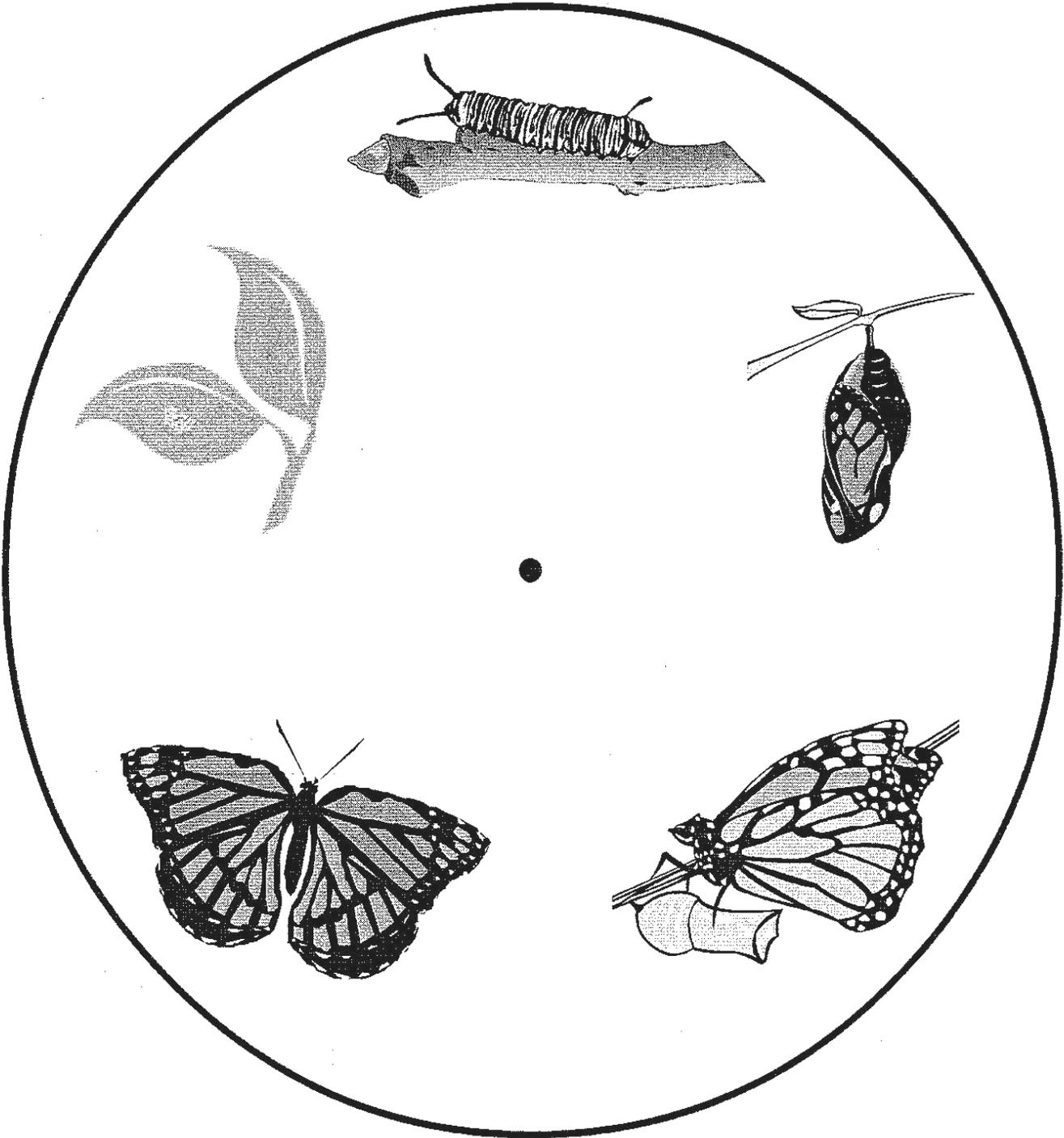
- **The Life of a Butterfly Activity Page**
- **The Life of a Butterfly Activity Page 2**
- Scissors
- Brass, pronged fastener

What to do:

1. Cut out the circle on the **The Life of a Butterfly Activity Page**. Lay it aside.
2. Cut out the circle on the **The Life of a Butterfly Activity Page 2**. Be sure to cut along the dotted lines and remove that section of the circle to make a window.
3. Place the circle from **The Life of a Butterfly Activity Page 2** on top of the circle from **The Life of a Butterfly Activity Page** and punch the pronged fastener through the center of both circles. Be sure to fold out the prongs on the fastener to make sure the circles stay in place.
4. You now can read **The Life of a Butterfly** starting the story with the window over the butterfly eggs. Next move to the caterpillar, then the chrysalis, then the butterfly with the damp wings, and finish the story with the picture of the full-grown butterfly showing through the window.



The Life of a Butterfly Activity Page



The Life of a Butterfly Activity Page 2

