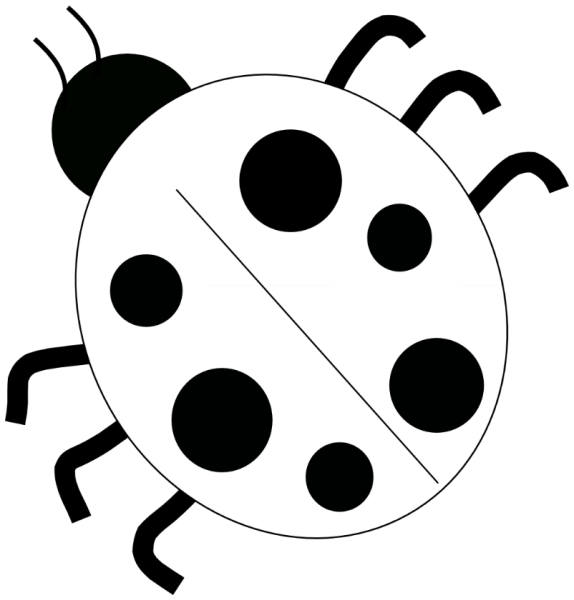
Cass County

Kinder Clover 4-H Bugs



Adopted Kinder Clovers Project

January 2022

Updated January 2024

Kinder Clover 4-H Parent's Page

Welcome to the Cass County Kinder Clover 4-H program! Kinder Clover 4-H is designed for youth to explore a variety of project activity areas and to interact with caring adults and other children.

Children receive this project activity manual when enrolling in Kinder Clover 4-H. This manual and the manuals on various other topics will provide fun age appropriate learning activities throughout their year in Kinder Clover 4-H.

As a Kinder Clover 4-H adult helper your job will be to guide and encourage each child through the activities. A wide range of activities are provided to allow you to choose the ones most appropriate for the children you are working with. 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. 4-H believes in allowing children to learn by doing. The Kinder Clover 4-H project activities are hands-on learning opportunities designed to provide a meaningful educational experience for youth.

Additionally, the Kinder Clover 4-H program is set up to allow children to display a project activity that is based upon information within this manual. Most children will choose to exhibit their project at the 4-H fair. The 4-H fair is an exciting week that allows community youth to showcase their talents, interests, and enthusiasm for learning.

Please help the child to bring their Kinder Clover 4-H project to the fairgrounds during the designated Kinder Clover 4-H judging time. Each exhibit will need a Kinder Clover 4-H exhibit tag and their Kinder Clover 4-H Project Record Sheet. Kinder Clover 4-H exhibits are non-competitive meaning they all receive a special Kinder Clover 4-H ribbon. Once the fair is over, be sure to pick up the project during 4-H Project Release.

Kinder Clover 4-H is fun! Children will certainly enjoy it. You can have fun too, by guiding and helping as children participate in the program. Encourage and praise the children as they have fun learning and sharing with you.

If you have any questions regarding Kinder Clover 4-H or other 4-H programs, please feel free to contact Purdue Extension Cass County at **574-753-7750.**

Kinder Clover 4-H Program Rules

The Kinder Clover 4-H program is designed to supplement and introduce kindergartners to the Cass County 4-H program.

RULES

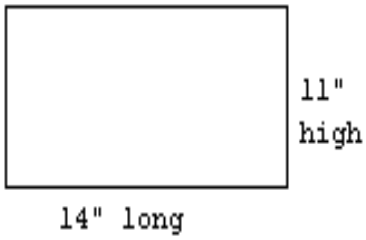
1. Kinder Clover 4-H is open to any boy or girl who is enrolled in kindergarten on January 1st of the current 4-H year.

2. Any Kindergartner may enroll in one (1) to three (3) projects.

3. Kinder Clover 4-H members enroll in any 4-H Club of their choice. Meetings are not required but encouraged, the project(s) will be done at home.

4. Kinder Clover 4-H projects include: Crafts/Models, Bugs, Cookie Decorating, Foods, and Animals.

5. **ALL POSTER EXHIBITS MUST**: (for projects with poster options)
   A. Have a solid, stiff backing, which is 11" high by 14" wide.
   This can be 1/4" plywood, HEAVY cardboard, foam board, or Masonite.



   B. Be positioned **HORIZONTALLY**.

   C. Have a total exhibit board no larger than 11" high by 14" wi**de.**

   D. Be completely **COVERED BY A CLEAR PLASTIC** material, not plastic wrap. Poster covers are available at the extension office.

   E. Leave a 5"x6" space in the lower right hand corner for the exhibit card the Purdue Extension staff will provide at Fair check in.

Kinder Clover 4-H Bugs

Let's have fun learning about bugs like insects and spiders! Some people think they are creepy but bugs play an important role in our world. Some are beautiful like butterflies while others are very tiny and hard to see.

*Complete any activity in the manual that interests you.

WHAT TO EXHIBIT:

1. Exhibit three (3) bugs on a 5 X 7 inch cardboard, foam board, or other stiff material. Use a straight pin to attach to the board. Label each bug by name.
2. Leave a 5"x6" space in the lower right hand corner for the exhibit card the Purdue Extension staff will provide at Fair check in.
3. Fill out the record sheet and bring it with your exhibit to the 4-H fair.

**All activities are excerpted from Mini 4-H Bugs, Purdue University Cooperative Extension Service

Kinder Clover 4-H'ers Page

Kinder Clover 4-H'ers have lots of fun! There are many activities for you to explore. You can try new things, which you can share with your family and friends.

Here are some things to know about 4-H:

The 4-H Symbol: A four leaf clover with a "H" on each leaf

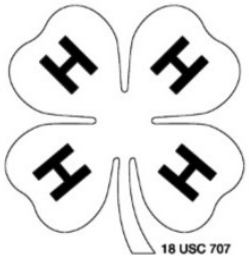
The 4-H Colors: The 4-H colors are green and white. The four-leaf clover is green and the "H" in the leaf is white.

The 4-H Motto: "To make the best better."

4-H PLEDGE

I pledge my **HEAD** to clearer thinking,

I promise to use my head to make good choices.



My **HEART** to greater loyalty,

I promise to use my heart to be a good friend.

My **HANDS** to larger service,

I promise to use my hands to do helpful things for others.

And my **HEALTH** to better living,

I promise to take care of my body and to show others to live in a healthy way.

For my club, my community,

I promise to help my group, my community,

My country, and my world.

my country, and my world be happy and safe for everyone.

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.

Mini 4-H Bugs. Purdue University Cooperative Extension Service.

Activity 1 - What Makes an Insect

Things you need:

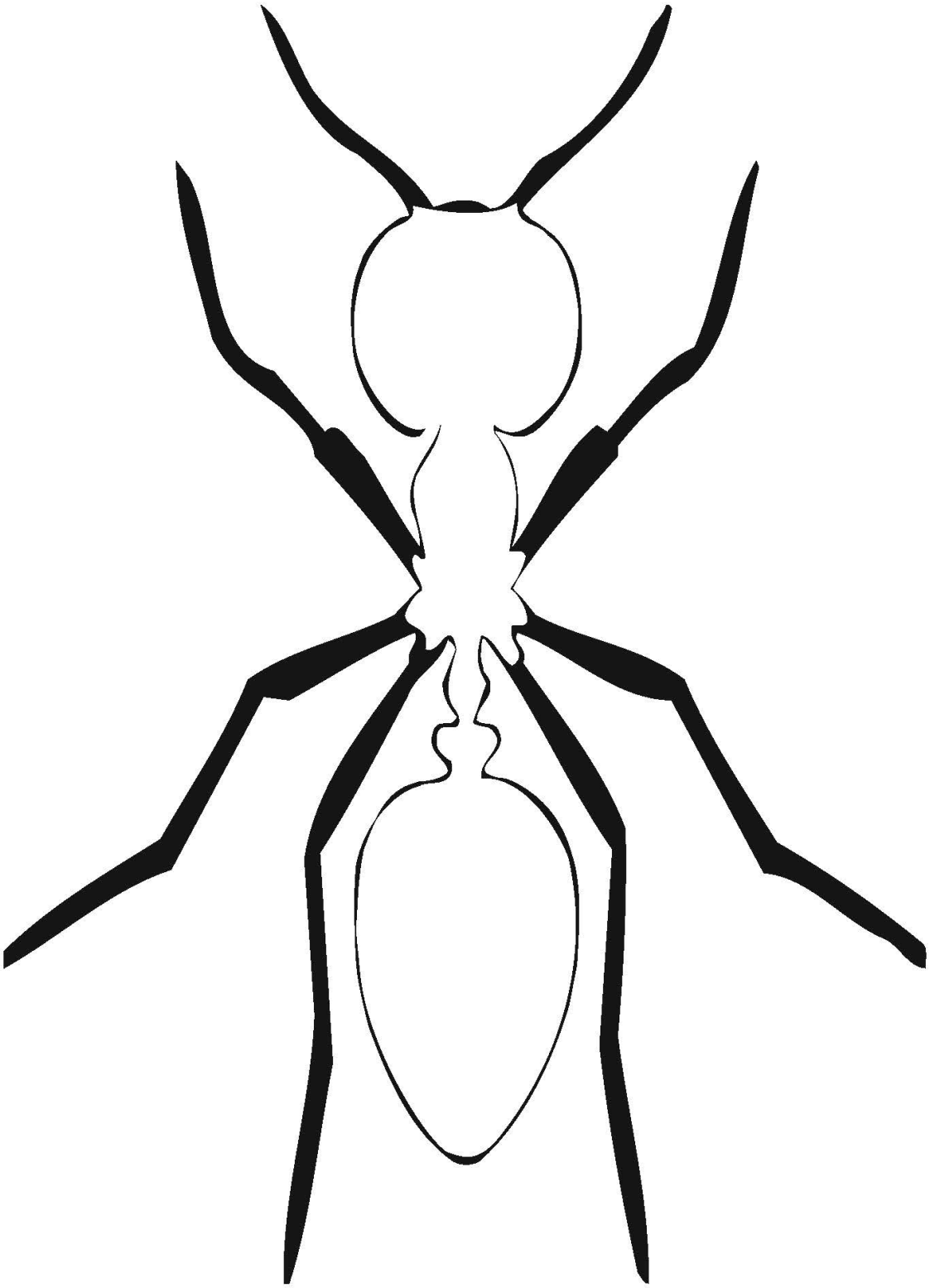
- **Insect Body Parts Activity Page**
- **Insect Body Parts Activity Page 2**
- Crayons or markers
- Scissors
- Stapler

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.

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



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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:

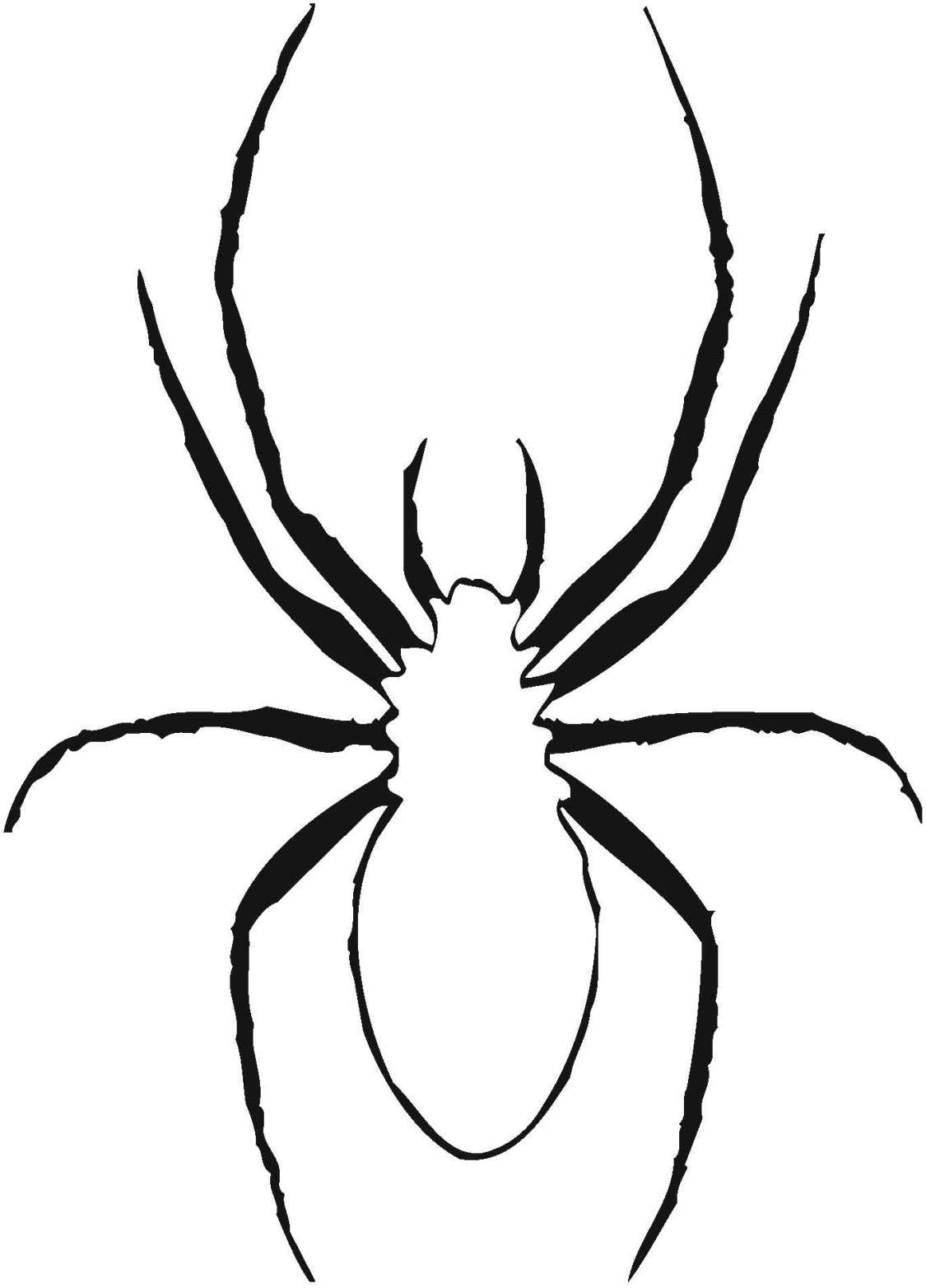
- **Spider Parts Activity Page**
- **Spider Parts Activity Page 2**
- Crayons or markers
- Scissors
- Stapler

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.

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



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Spider Parts Activity Page 2

Fold Here

Fold Here

Fold Here

Cephalothorax

Abdomen

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Activity 3 - Insect or Spider Game

Things you need:

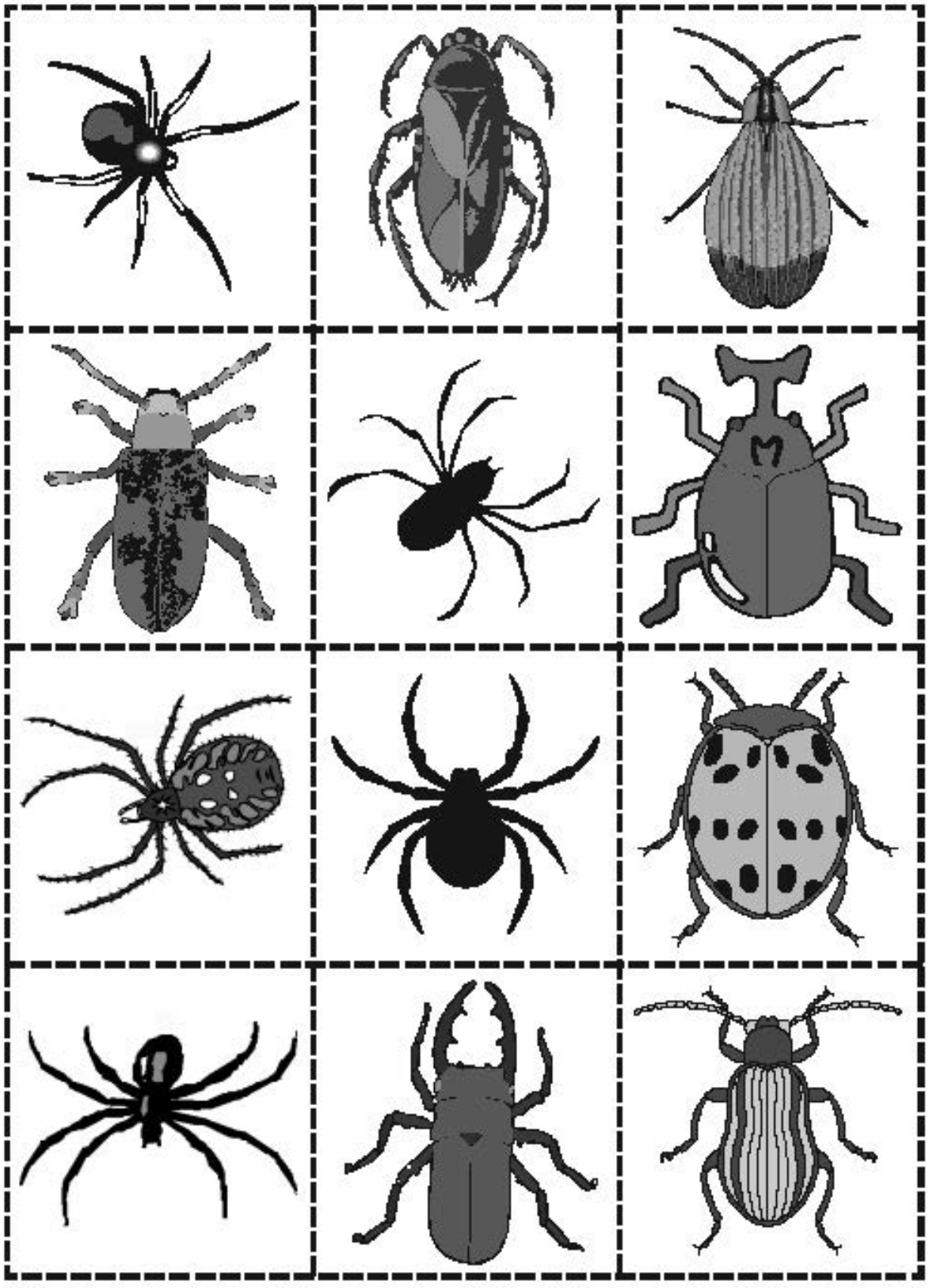
- **Insect or Spider Activity Page**
- **Insect or Spider Activity Page 2**
- **Insect or Spider Graph**
- Scissors
- Paper lunch bag
- Crayons or markers

What you do:

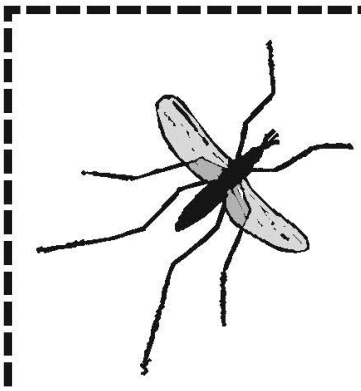
1. Cut out the squares on the dotted lines to make cards.
2. Place the cards in a paper lunch bag and shake to mix them up.
3. Draw out one of the cards. If the card shows a picture of an insect or if the words describe an insect, color in the bottom square of the graph right above the insect. If the card shows a picture of a spider or if the words describe a spider, color in the bottom square of the graph right above the spider.
4. Choose again and color in the square that shows what you picked. Choose a total of eight times. Did you choose more insect cards or more spider cards? (This game can be played with partners and in a group of 3. Each child takes a turn drawing cards until one person has either filled up one side of the graph or until the group has run out of cards.)

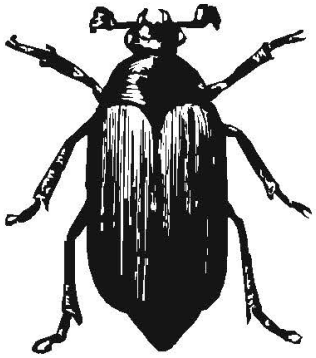
1. A memory game can be played with the cards. Glue the cards onto the same color of construction paper so you can not see through the backs. Mix up all the cards and lay them face down in rows. Turn over any 2 cards. If both cards are insects or words about insects, keep them and the next person takes their turn. If both cards are spiders or words about spiders, you keep them and the next person takes their turn. If both cards do not refer to the same thing, (either an insect or a spider) you must put the cards back and the next person takes their turn. The game ends when all the cards are matched.

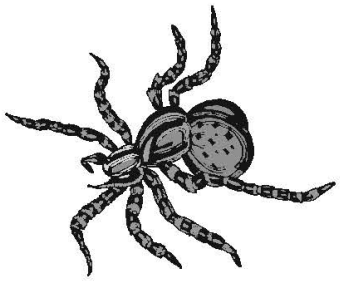
Insect or Spider Activity Page

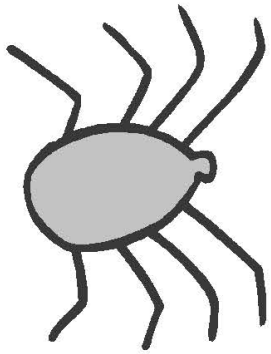


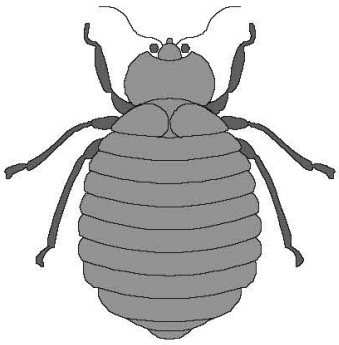
Insect or Spider Activity Page 2





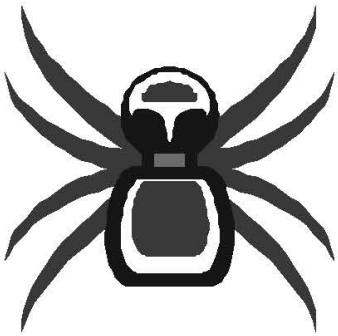




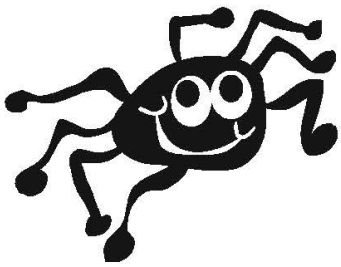


6 Legs

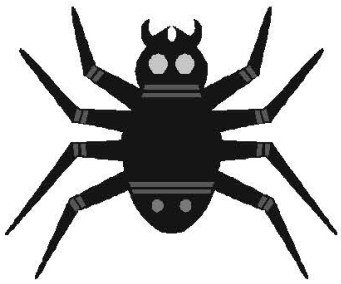
8 Legs



3 Body Parts



2 Body Parts



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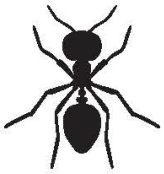
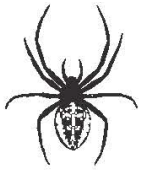
Insect or Spider Graph

8	8
7	7
6	6
5	5
4	4
3	3
2	2
1	1
 Insect	Spider 

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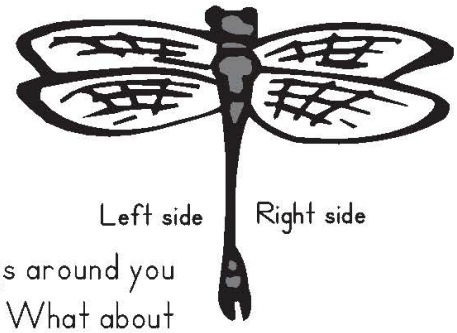
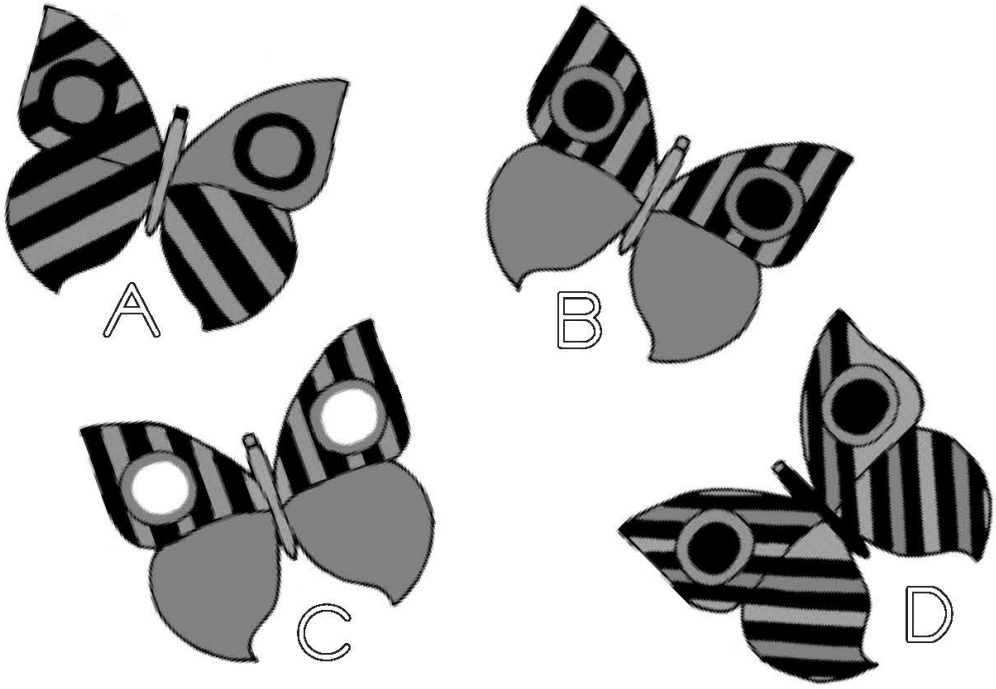
Activity 4 - Both Sides Are the Same



Have you ever looked closely at a bug? Most bugs are the same on both sides. When a bug has 2 wings on the right side, it usually has two wings on the left side, too. Things that are the same on both sides are **symmetrical**. Take a minute to look around. Can you find things around you that are symmetrical? Are animals symmetrical? What about you and your friends?

Why do you think bugs are symmetrical? What might happen if a bug had 3 long legs on one side and 3 short legs on the other side? Get an adult to help you find out. First, make one small wheel and one large wheel out of cardboard. Use a pencil or straw as an axle to connect the 2 wheels. What happens when you try to roll the wheels? What might happen if a bug had 1 wing on one side and no wings on the other side? (*Hint: Take one of the wheels off and try to roll only one wheel and an axle.)*

Which butterflies below are symmetrical? (*Answer on page 30*)



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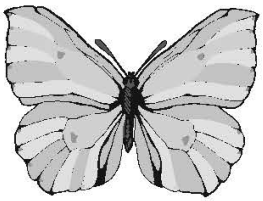
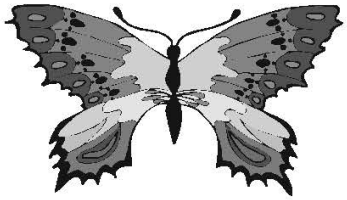
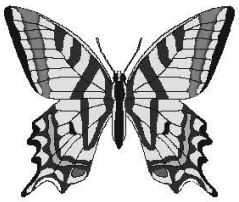
Activity 5 - Make a Butterfly

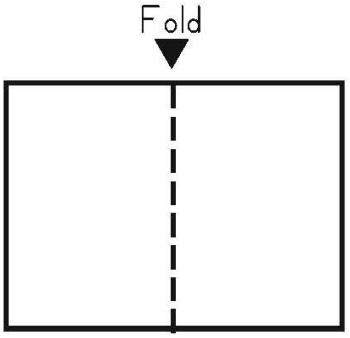
Most bugs have the same color and design on the left side and on the right side. If a bug has a blue stripe and a red dot on the left side, the bug will usually have a blue stripe and a red dot on the right side, too. Make your own symmetrical butterfly below.

Things you need:

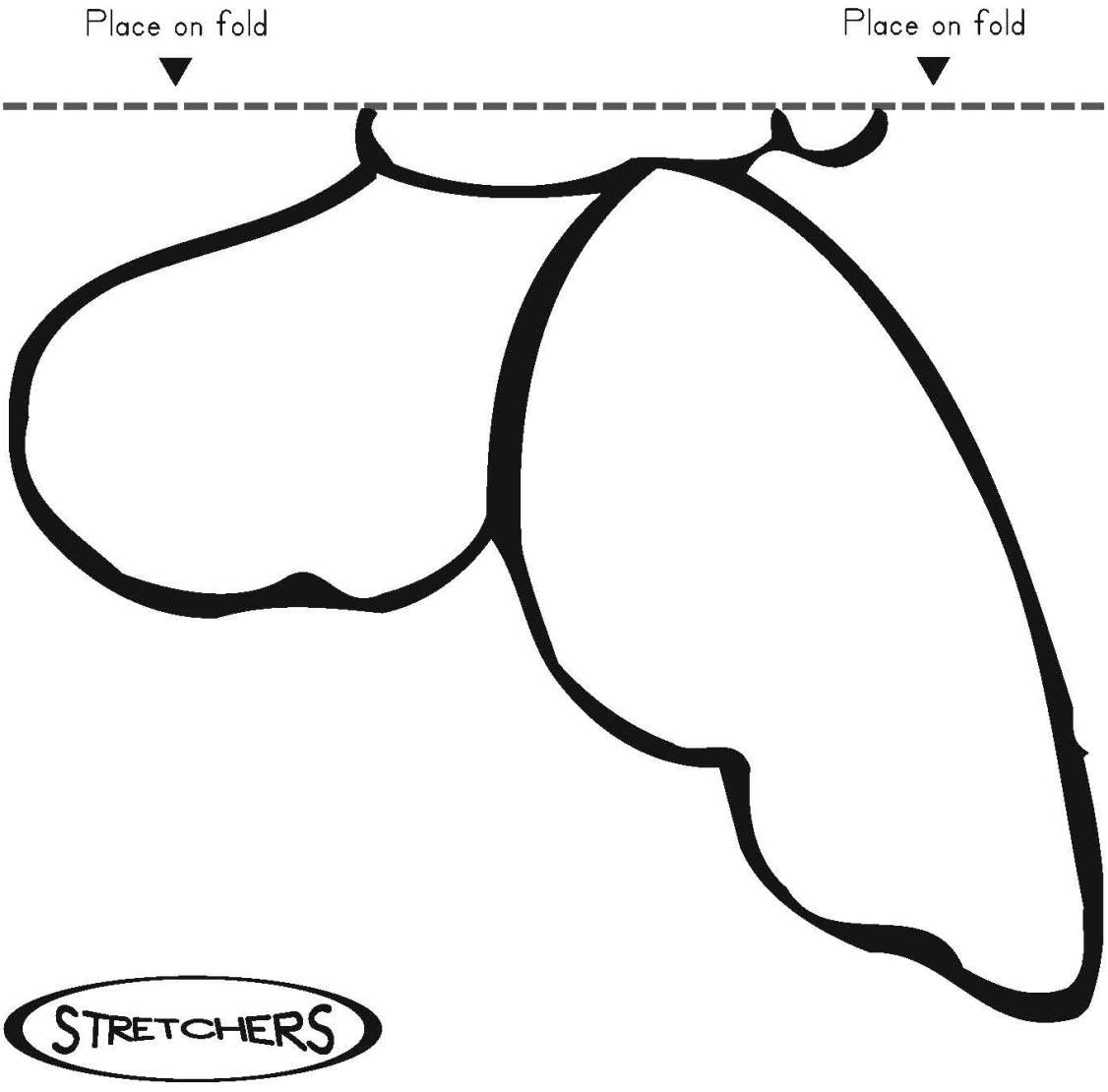
- **Butterfly Symmetry Activity Page**
- Scissors
- Chenille stems
- 8 1/2 x 11" construction paper
- Several colors of paint
- Scotch tape

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.

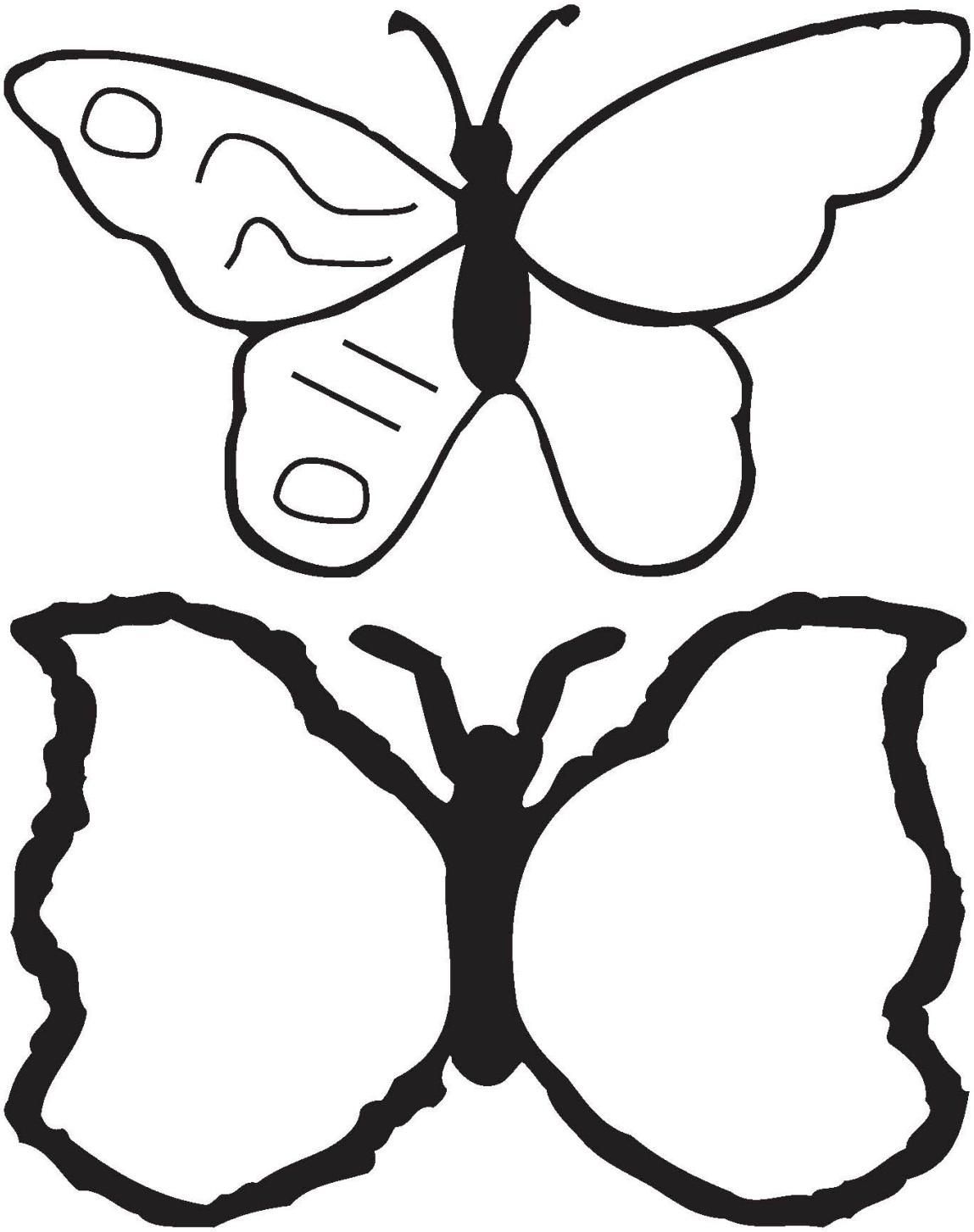
Butterfly Symmetry Activity Page



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.

Mini 4-H Bugs. Purdue University Cooperative Extension Service.

Activity 6 – Make the top butterfly the same on both sides.
Use the bottom butterfly to create your own.



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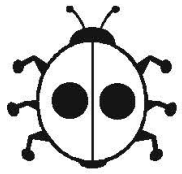
Activity 7 - Spot the Ladybug

Look for a number by each ladybug. Put that number of spots on each ladybug like this Remember, bugs are the same on both sides.



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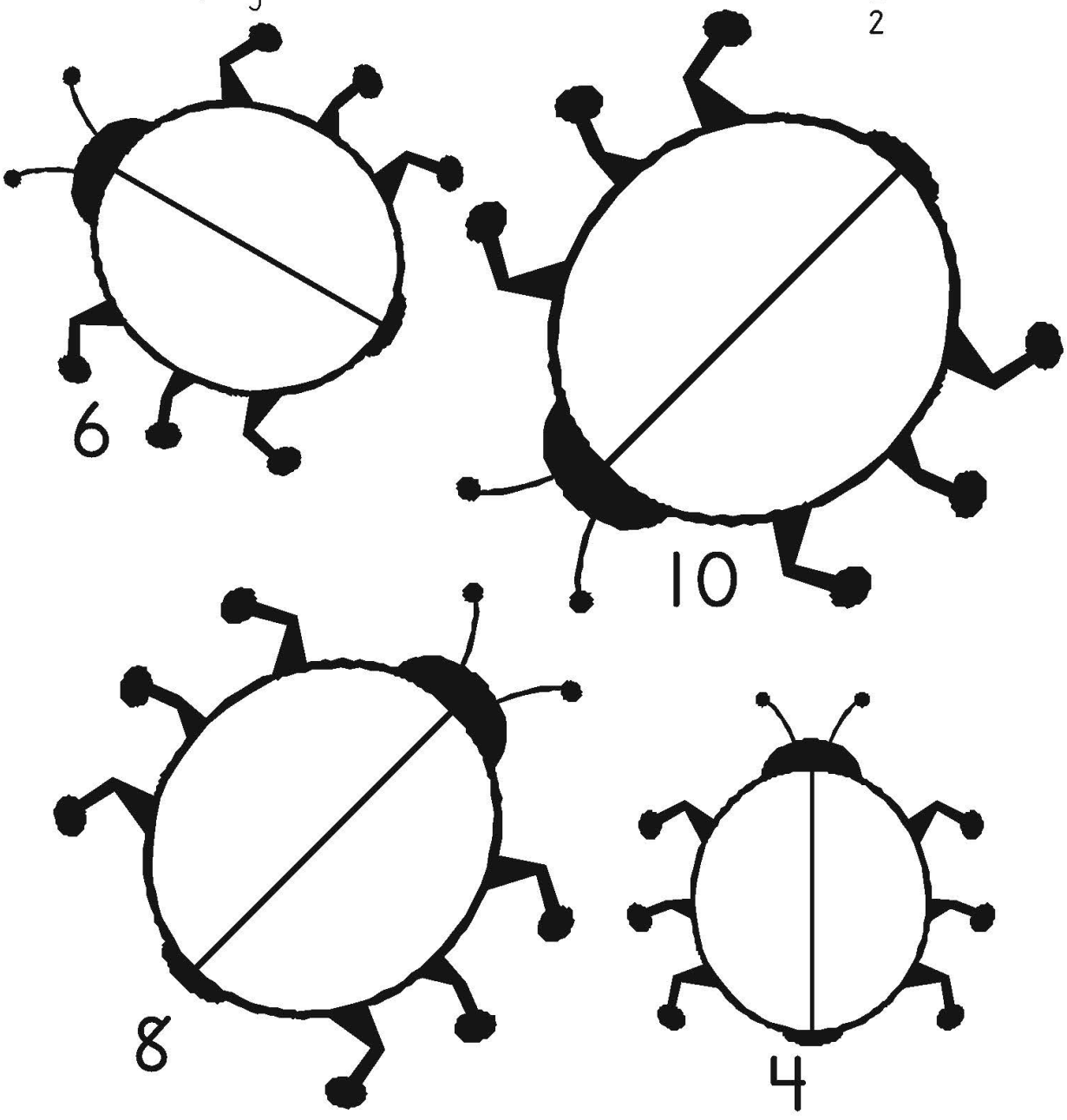
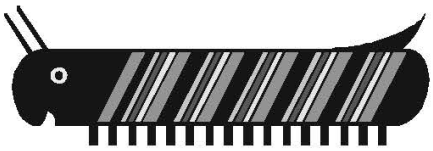


Mini 4-H Bugs. Purdue University Cooperative Extension Service.

Activity 8 - Make a Shape Bug

Bugs can be many different shapes and sizes. Bugs can be almost any color or pattern. Take a walk outside and look at all the different kinds of bugs. What kind of bug would you make if you could create your own special bug? Would it be large or small? Would it be brightly colored or would it be hard to see in a pile of leaves on the ground?



Things you need:

- Glue
- Scissors
- Pencil
- Buttons, chenille stems, sequins, glitter (whatever you need to decorate your bug)
- Crayons or markers
- White or colored paper
- Objects with a variety of shapes to trace (optional)

What you do:

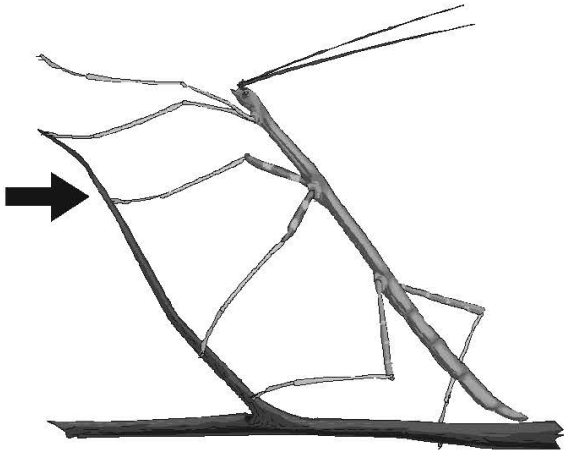
1. Think about a bug you would like to make. Think about the shapes you will need to make your bug. Draw the shapes you will need on the white or colored paper. *Children with lesser skill may need to trace around objects to get the shapes they need.* Some children may choose to decorate an object like a comb or tongue depressor as a bug.
2. Cut out the shapes you need to make your bug.
3. Glue the shapes together to make your bug.
4. Color and decorate your bug using all of the things you collected.

STRETCHERS

1. Encourage children to make a bug collection with the bugs they made. Let children glue the bugs they made in the lid of a shoebox or on a piece of cardboard and label each bug with a name they choose.
2. Invite older children to write a story about their special bug. Have them include where the bug lives, what it eats, and how it protects itself from its enemies.

Mini 4-H Bugs. Purdue University Cooperative Extension Service.

Activity 9 - Bug Hide and Seek



Have you ever wondered how bugs stay safe from their enemies? One way bugs stay safe is to look like the things around them. This is called **camouflage.** This picture shows an insect called a **walking stick.** Can you guess how this bug got its name? This bug stays safe by looking like a twig or a stick. The walking stick stands very still so that when birds or other animals are looking for a meal they think the walking stick is part of a tree and not something good to eat.

Things you need:

- **Bug Hide and Seek Activity Page**
- Markers or crayons
- Scissors
- White paper

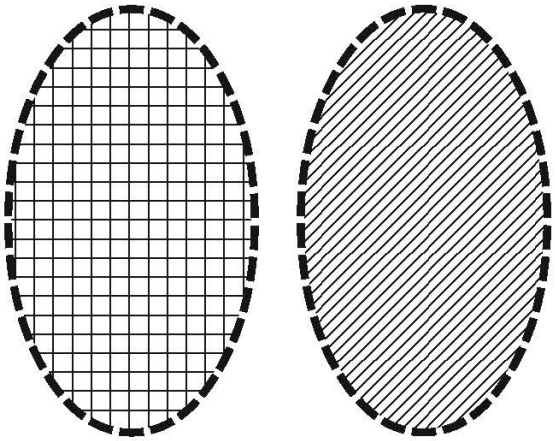
What you do:

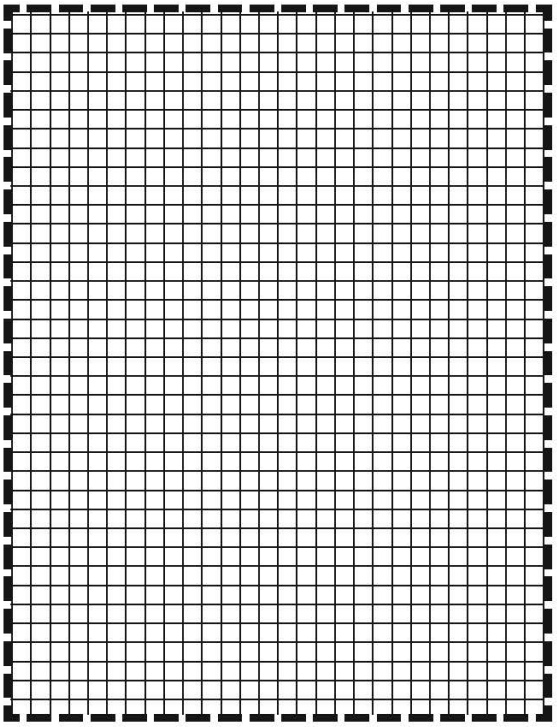
1. Cut along the dotted lines. The ovals are the bugs, and the squares are the hiding places.
2. Lay each bug on the hiding places one by one. Which hiding place should each bug use to stay safe from enemies? Why?
3. Trace the shape of one of the bugs and one of the hiding places onto a piece of white paper to make your own bug and hiding place. Use crayons or markers to create your own camouflage. *Remember the bug and the hiding place should match to keep the bug safe.*

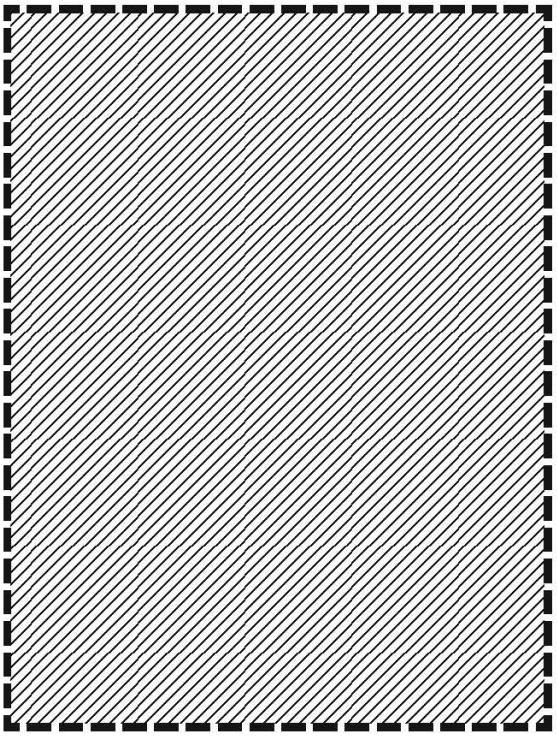
1. Encourage children to make bugs out of newspaper, wallpaper, or colored construction paper. Take turns hiding the bugs in plain sight. Remember the bugs are hardest to see when they hide on something that is the same color as they are or on something that looks like them.

Mini 4-H Bugs. Purdue University Cooperative Extension Service.

Bug Hide and Seek Activity Page





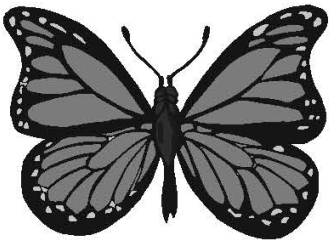


2. Use wallpaper or gift wrap scraps to make a camouflage game. Make 6 squares, each from a different paper design, and glue them onto index cards. These are the hiding places for the bugs. Make 6 ovals out of the scraps, one to match each square, and glue them onto index cards. These are the bugs. Mix up the cards and lay them all face down. Invite one child to choose 2 cards. If the child chooses a bug and a hiding place that match, the bug is safe, the child lays the pair aside, and the next child takes a turn. If the child chooses 2 bugs, 2 hiding places, or a bug and a hiding place that do not match, the cards are put back and the next child takes a turn. Play continues until all the bugs are safe.

Activity 10 - Copycat Bugs

Some bugs stay safe by looking like bugs that taste bad. One insect that stays safe this way is a butterfly called a viceroy. A viceroy butterfly looks almost the same as a monarch butterfly. Both of them have very bright orange and black wings, but the monarch tastes bad.

Viceroy butterfly



Monarch butterfly

The caterpillars of monarch butterflies feed on milkweed, and this causes the grown-up monarch to have milkweed poison in them. If a bird eats a monarch butterfly, the bird will get sick and throw up. After that, the bird will remember the bright orange and black colors and will not eat any butterfly with those colors. This keeps the viceroy butterfly safe, because birds think the viceroy will make them sick, too.

Things you need:

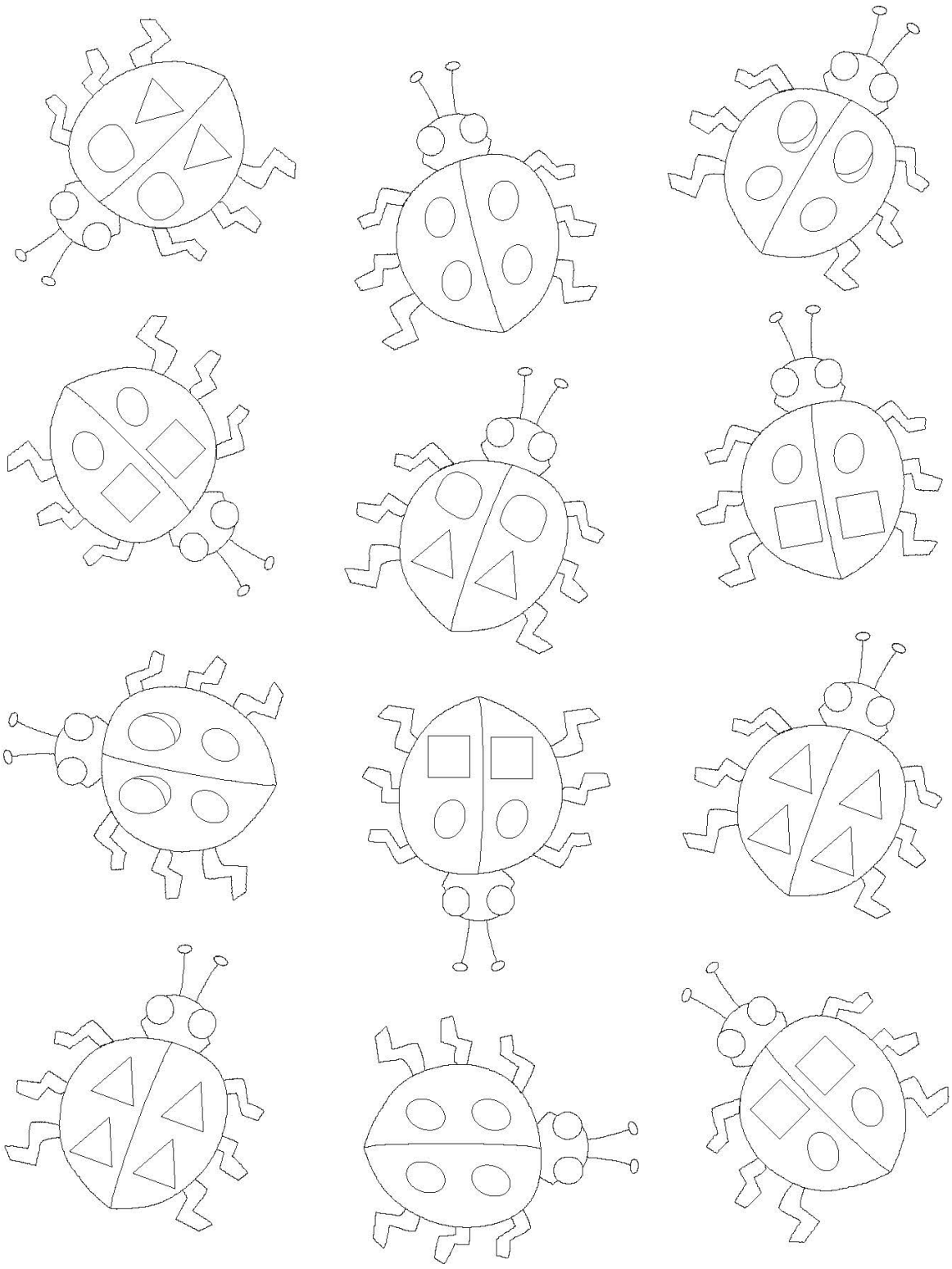
- **Copycat Bug Activity Page**
- Crayons

What you do:

1. Look carefully at all the bugs on the **Copycat Bug Activity Page**. Find the match for each bug and circle the matching bugs with the same color crayon. Hint: *Each bug has only one copycat bug that looks exactly like it.*

1. Challenge children to make a "copycat" bug. Invite children to work in pairs. Give each child two oval pieces of construction paper to use as bugs. Have each child draw a unique design on one of their "bugs." Let the children exchange designed bugs with their partner. Have children make a "copycat" bug by copying onto their blank bug the same design their partner drew.

Copycat Bug Activity Page



Activity 11 - Where Are Bugs in Winter?

Bugs are almost everywhere you look in the spring, summer, and fall. But when it gets cold outside, bugs are not easy to find. Have you ever wondered what happens to bugs in the winter? Not all bugs do the same thing.

Some bugs, like crickets, lay eggs in the ground before it gets really cold outside. After the crickets lay their eggs, they die. The eggs hatch when it gets warm again in the spring.

Other bugs, like ladybugs, **hibernate** or sleep through the winter. They find a warm spot in a hole in a tree or maybe under your house and sleep during all the cold days. When it starts getting warm again, they wake up.

Ants live all winter deep in their tunnels under the ground. Honeybees spend the winter snuggled close to each other in their hive.

Some bugs, like monarch butterflies, **migrate** or travel to a different part of the world. When the weather starts to get cool, they fly to places where the air is warm. The butterflies stay in the warm place for several weeks. When spring comes back to the place they left, the butterflies fly home.

Things you need:

- **Help the Butterflies Migrate Activity Page**
- Pencil

What you do:

1. Draw a line through the maze from the monarch butterflies to the trees where they will spend the winter. Do not cross over the lines.

1. Encourage children to think about the ways people keep warm in winter. Make a poster using pictures from magazines showing the ways people keep warm. Are people and bugs similar in any of the ways they keep warm? (Example: People sometimes "migrate" to a warmer part of the world.)

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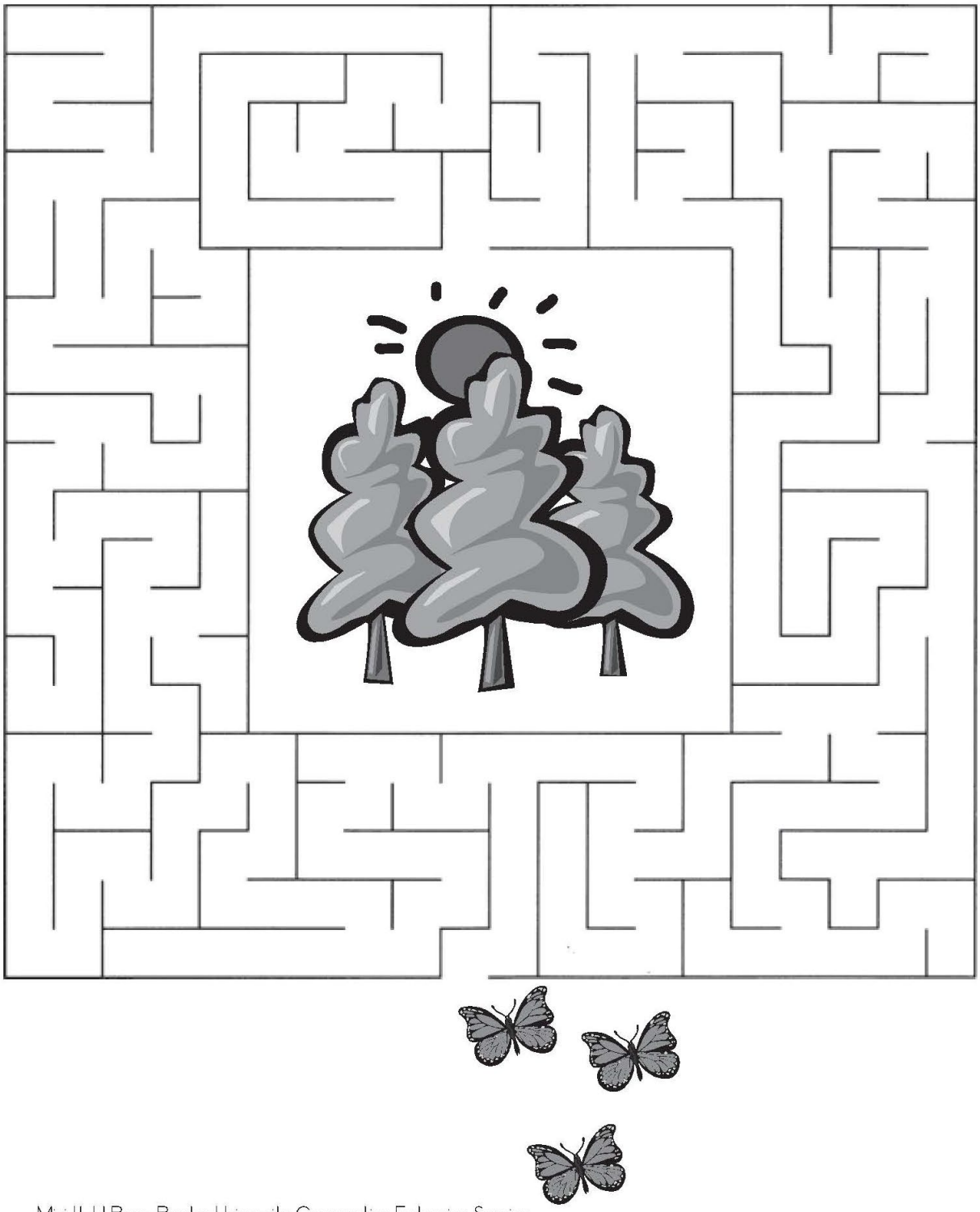
Help the Butterflies Migrate Activity Page



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RECORD SHEET

Kinder Clover 4-H BUGS

Name _____Grade_____

4-H Club _____

Please complete and bring with Kinder Clover4-H Exhibit.

I choose to exhibit _____.

My favorite bug is_____

_____

_____.

I learned _____

_____

_____.

My favorite part of Kinder Clover 4-H this year was_____

_____

_____.

List who helped you with the project _____

_____