



Flying Insects

4-H Family Back Pack #1



4-H After School Program

University of California Cooperative Extension

How do Bugs Do What They Do?



Directions: Have one person ask the questions and see if other family members know the answer. See who knows the most about some of our well known bugs.

- 1) **How do flies walk on the ceiling?** Answer: Fly's have sharp claws and lots of stick hairs on their feet to help them to hold on).



- 2) **How do crickets hear?** Answer: Crickets have ears on their front legs, not their heads. These special sensory organs will pick up the sound the other crickets make.

- 3) **How do wasps make their nests?** Answer: Wasps bite off dead bark, mix it with saliva and make a paste. They make the nest out of this paste).



- 4) **How do ants talk?** Answer: Ants can't make sounds, but they use their feelers to communicate).

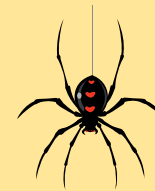


- 5) **How do fireflies glow?** Answer: There is a cell on the rear part of the firefly's tail. This cell contains a substance that glows when it comes into contact with the air.

- 6) **How do cricket chirps?** Answer: Crickets make sounds by rubbing their wings together. Only the male cricket make sounds.



- 7) **What is the difference between Insects and Spiders?** Answer: Insects have 6 legs, 3 main body parts, antennae and 2 pairs of wings. Spiders have 8 legs, 2 main body parts, no antennae and no wings.



How do Bugs Do What They Do Continued?



8. What is the difference between Moths and Butterflies? Answer: Moths have a cocoon, and rest with their wings open, caterpillars are hairy, antennae are feathered and are active at night. Moths also have thick furry bodies..

Butterflies are chrysalis, rest with their wings together, caterpillars are smooth, antennae are long with thin round tops. They are active during the day and have narrow bodies.



utterfly on a Magic Wand

Educational Note: Butterflies rest with their wings together.

Supplies

- Color Markers or crayons
- Strong sewing thread or fine yarn
- One toothpick (round or flat) for glue
- Cellophane tape
- One soda straw
- Scissors
- Hole punch
- Ruler

Directions:

1. Cut both butterflies out and glue together (pattern attached).
2. Color with felt pens or markers.
3. Fold the butterfly in half.
4. Poke a hole in the centerline of the butterfly at the tie-on point (3/4 from the top of the head).
5. Run the string through the hole and tie a knot on one side, bringing the string through. Secure with tape.
6. Punch a small hole through the straw and attach the string.
7. For better flying, attach a long piece of thin cloth to make a tail.



Edible Insects

Educational Note: Like butterflies, ladybugs undergo a complete metamorphosis from egg to larva to pupa to spotted adults.

Ingredients:

- Carrots, bananas, cucumbers and other round fruits and Vegetables
 - Sliced almonds for wings
 - Shredded coconuts for spots or stripes
 - Raisins for eyes
 - Whipped cream cheese
 - Shred some carrots for trim
 - Paper plates
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- Peeling knife (for use by adult)

Directions:

1. Provide the above ingredients and create bugs using banana, carrots, cucumbers, apple and oranges wedges, etc.
2. Place the fruit or vegetable rounds on a plate and use the cream cheese to "glue" the round together, side by side or on top of each other.
3. The raisins, nuts, and shredded carrot can be used for eyes, feelers antenna, legs, etc.



Butterfly Nectar

Ingredients:

- Frozen pineapple juice concentrate
- Frozen cranberry juice concentrate
- Lemon-lime carbonated beverage
- Ice cubes

Directions

1. Place one tablespoon each of the pineapple juice concentrate and the cranberry juice concentrate (still frozen) in an 8 ounce glass.
2. Pour carbonated beverage over the concentrate until the glass is three-fourths full. Stir until almost blended. Add 2 or 3 ice cubes and stir again. Drink and enjoy.

The Bug Box

Supplies:

- Oatmeal box with top or similar round box and lid.
- Piece of screen wire
- Pencil
- Scissors
- Glue
- Cord
- Paint or paper



Directions:

1. Paint the box or cover with paper.
2. Draw a window large enough to see through on the box and cut it out leaving at least 1/2 inch on all sides.
3. Measure and Fit the screen wire in the window making sure it can be attached on the remaining cardboard edges and glue it in place.
4. With the lid on the box make 2 holes just under the lid on each side.
5. Remove the lid and push one end of the cord in each hole. Knot each end to hold the handle in place. Now you can carry your bug box with you.
6. Fill your box with a sticks, grass, and leaves so your bug has someplace to hang on to.
7. Catch some bugs and put them in your bug box. Observe them for a while, enjoy their company, then set them free again (note: you can also look at them with a magnifying glass. Be sure and be careful not to do this in direct sunlight to avoid attracting the sun and overheating the box).



ee Puppet

Educational note: This puppet is a great way for younger children to learn about bees and their home.

Supplies Needed:

- Yellow poster or heavy construction paper
- Glue
- Scissors, Tape
- Pop cycle or craft sticks
- Markers

Directions:

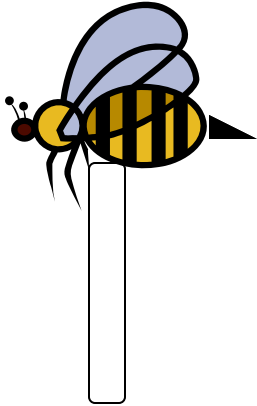
1. Trace the bee patterns on to the yellow poster board or heavy construction paper and cut them out. (Note: older youth may want to make their own bees.)
2. On black construction paper cut out eyes, nose, antennas and stinger for bee.
3. Use markers to draw the bee's mouth and strips.
4. Glue a pop cycle or craft stick to the bottom of each bee.
5. Have your family write a short story based on what a bee does all day and use your puppet in your story.

Note: For older children have them design and make a bee hive to use in the story. Make a pattern, cut it, decorate and glue to a pop cycle or craft stick.

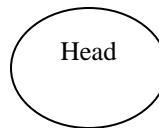


Bee Puppet Pattern

Note: Older youth may wish to make their own patterns for the bee's body parts.

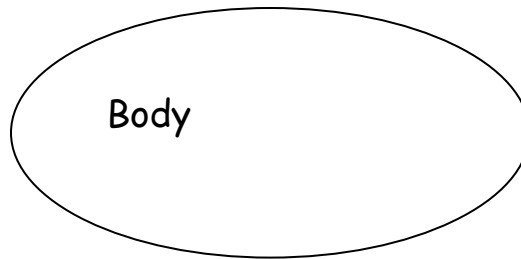
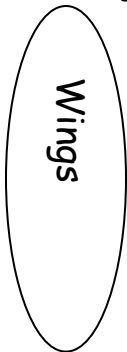


Eyes ○○

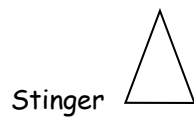


Head

Cut two wings.



Body



Stinger



antennas



Ady bug Mask

Supplies:

- Plastic Foam Sheet or construction paper in black, red or green
- Glue
- Scissors
- Hole punch
- String
- Pattern

Directions:

1. Cut out body pattern and place on foam or construction paper. (See pattern in Activity folder).
2. Trace the lady bug body pattern on the black construction paper or foam paper, with pencil.
3. Cut out. Be sure and cut out the slits on the body as this is where the eyes for the person wearing the mask will be.
4. Cut out wing patterns. Be sure and cut out the circle on the wings so the black will show through.
5. Cut out eye pattern or use the circles from the wings for eyes.
6. Glue an eye to each antenna.



Ady bug Mask Continued.

7. Place the pattern on the green or red construction or foam paper and cut out.
8. Glue wings and eyes to the black body.
9. Use a hole punch to make a small hole at the edge of the lady bug.
10. Cut two pieces of string about 12" long Tie one end through the lady bug hole and leave one loose. Use the same procedure for the other side.
11. Fit the mask to the child and tie to fit.

Web site: www.Kids.nationalgeographic.com

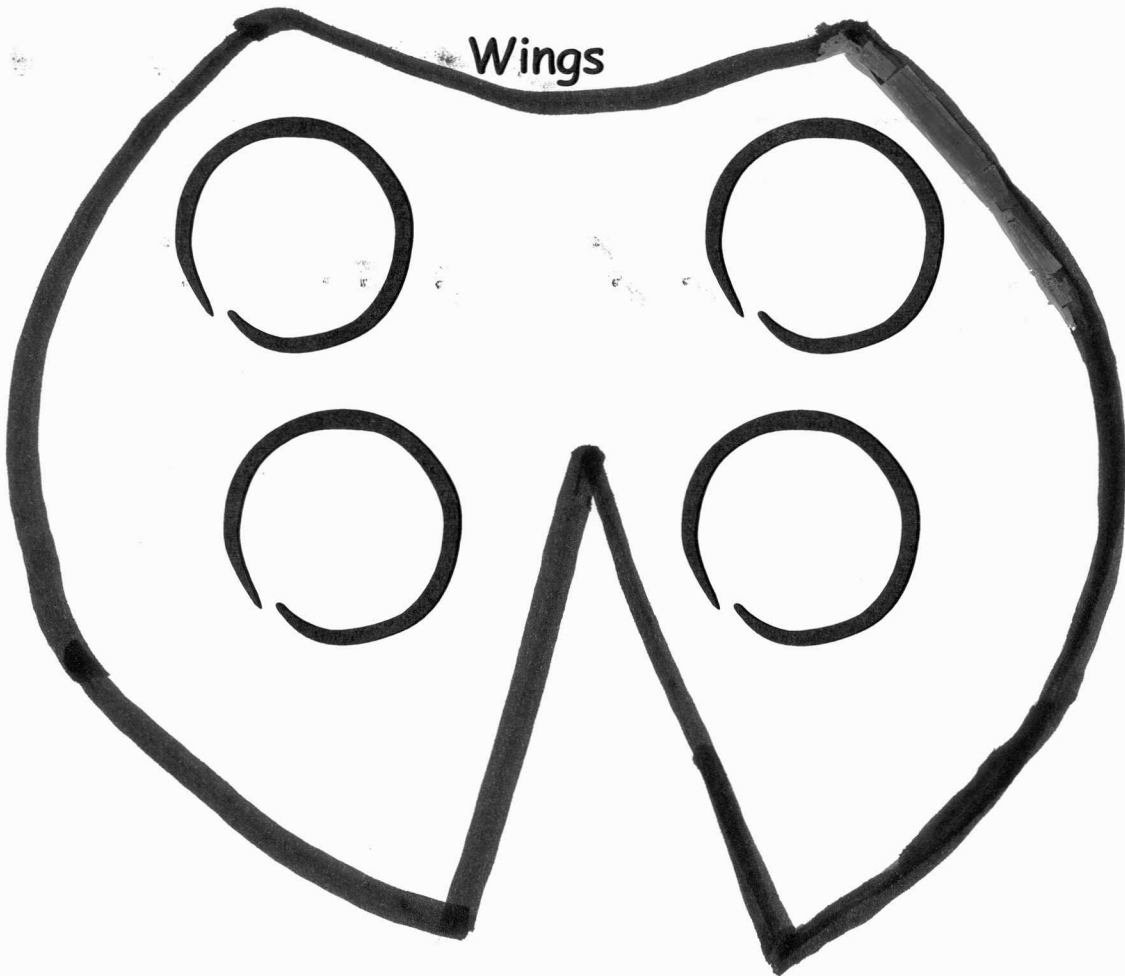
Additional Information On Bugs

Lady Bug Mask

Eyes



Wings



Lady Bug Body

String
Hole

Eye slots

