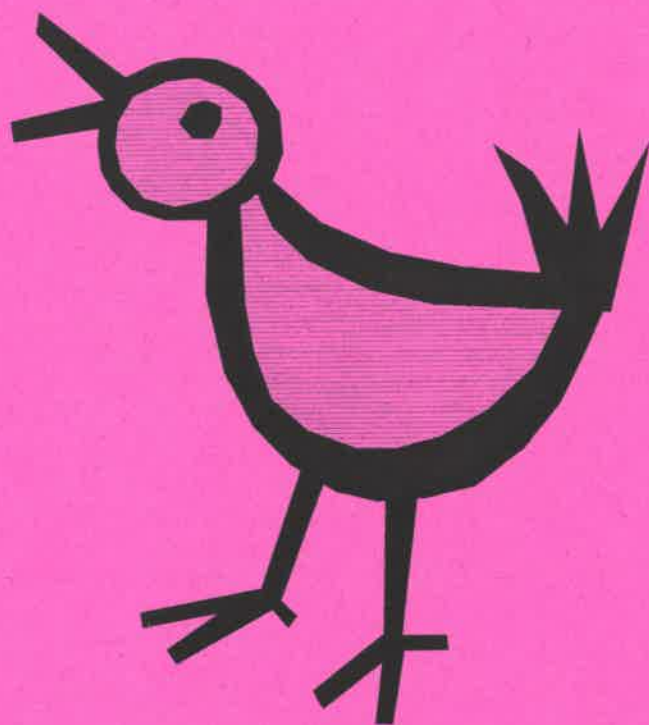




Mini 4-H
Wildlife Adventures

All Divisions



Draft

Developed by
Purdue University Cooperative Extension Service
Area 7 Youth Educators

(Blackford, Delaware, Fayette, Franklin, Henry, Jay, Madison,
Randolph, Rush, Union, & Wayne Counties)

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Resources and References

Wild Adventures, Mini 4-H Manual, Rush County, Indiana
Cloverbuds, Minnesota Extension Service, University of Minnesota
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Williamson Publishing Company, Charlotte, VT 05445, 800-234-8791, \$12.95.

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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.

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 "learning 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 week that allows community youth to showcase their talents, interests and enthusiasm for learning.

Mini 4-H is fun! Your child cannot help but enjoy it! You can have fun too, by guiding and helping as your child participates in the program. Encourage and praise your child as they have fun learning and sharing with you.

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



Mini 4-H'ers Page

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

Mini 4-H'ers 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 or Dad, or another adult can help you with your project. And you can bring your project to the 4-H Fair! Lots of people will see what you have done. Plus, you get a ribbon made just for Mini 4-H'ers.

Here are some things to know about 4-H.

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

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 for better living,
In my club, my community,
My country and my world."



What are Wildlife Adventures?

Do you ever wonder about the animals that live in the woods and open areas around your home or city? Would you like to know about how and where they live? The world of wildlife beckons you! There are so many fun things to do to get to know wildlife, indoors and out, every month of the year.

Wildlife Adventures involves watching wild animals and birds that live near our homes. It also involves building shelters, creating your own critters, making a nature mobile, and learning what type of tracks animals leave behind. Luckily, you won't need much in the way of equipment to enjoy wildlife. You already have the most important tools – your eyes, ears, nose, and hands!

There are some rules to keep in mind when exploring. Ask permission before you wander onto someone's property. Do not pick plants, flowers, or tamper with nature or fences in any way. Treat wildlife habitats with great care. Don't just turn over rocks or logs. Animals live in those places. Take your time to experience wildlife. There is so much we all can learn.

◆ **Activity 1 – Birds of Indiana**

You will need the following things:

- color pencils, markers or crayons
- scissors
- 14" X 22" posterboard (any color) OR
- two or three dead twigs of different lengths
- string or heavy thread
- glue or tape

Here is what you do:

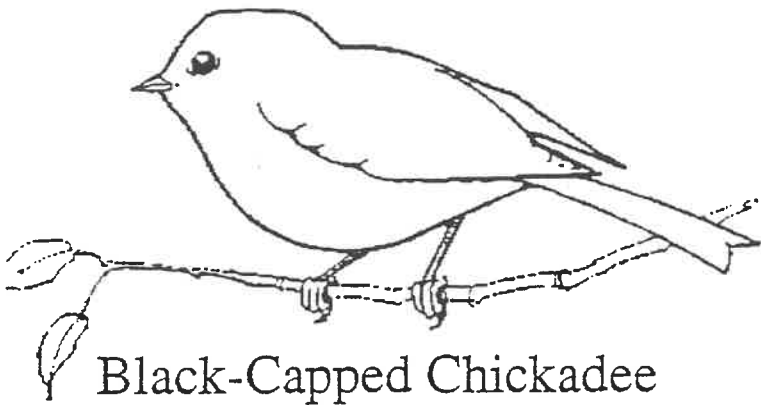
1. Find color pictures of these birds in a book at home or in the library.
2. Color the birds to match the pictures in the book.
3. Carefully cut out your colored pictures.
4. Arrange the pictures on the posterboard. . Leave room for your name in the lower right hand corner and a title across the top. If you would like to make a mobile, skip to step 7
5. Carefully glue the pictures to the posterboard.
6. To make a bird mobile, follow steps 1, 2 and 3. Tape or glue string or thread of different lengths to the back of each of the birds.
7. Arrange the twigs so the longest is on top and the shortest is one bottom. Tie the twigs together leaving 4" to 6" between each twig.
8. Carefully arrange the birds and tie their strings to the twigs. You can move the birds if you need to.
9. Carefully pick up the top twig in the center. Look at how the mobile hangs. Tie a piece of string to the point on the stick where you are holding it. Congratulations! You have a mobile.
10. Bring your poster or mobile to the fair.

It will take some time to find the color pictures of the birds in a book. Look carefully. Ask the librarian to help you if needed. This activity helps you to quickly identify the types of birds that live near your home. Look closely. Some of the birds live around your home only during the summer months. Some birds are seen only in the winter months. It shows how close we live to the wildlife around us.

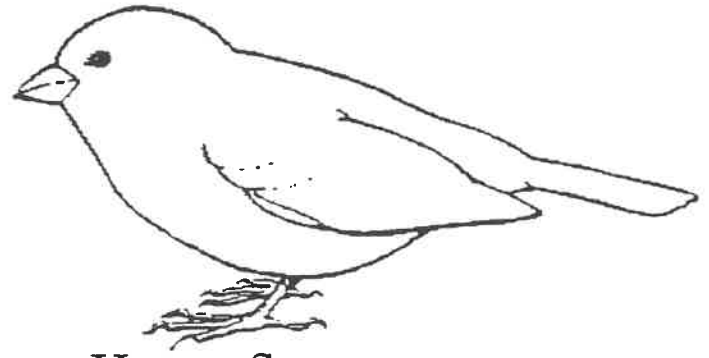
Turn the page to see Birds . . .



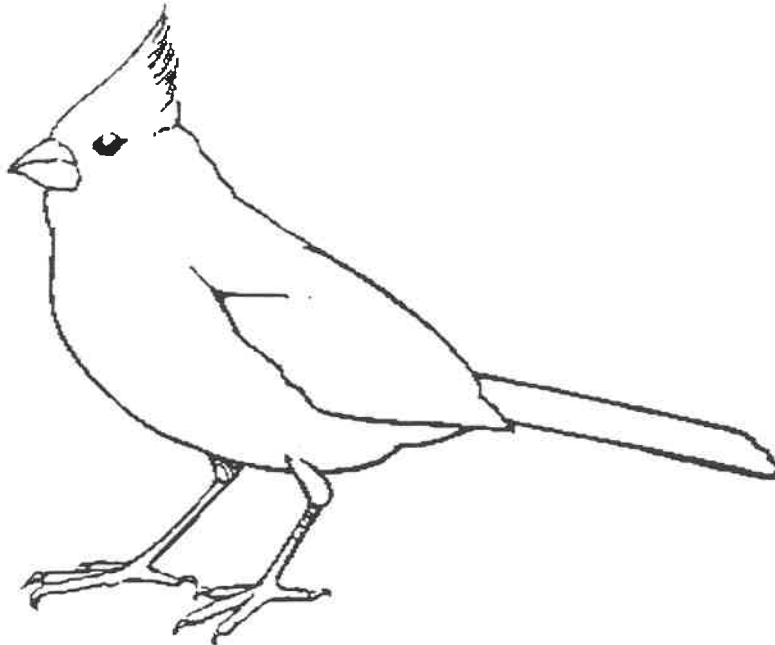
Birds



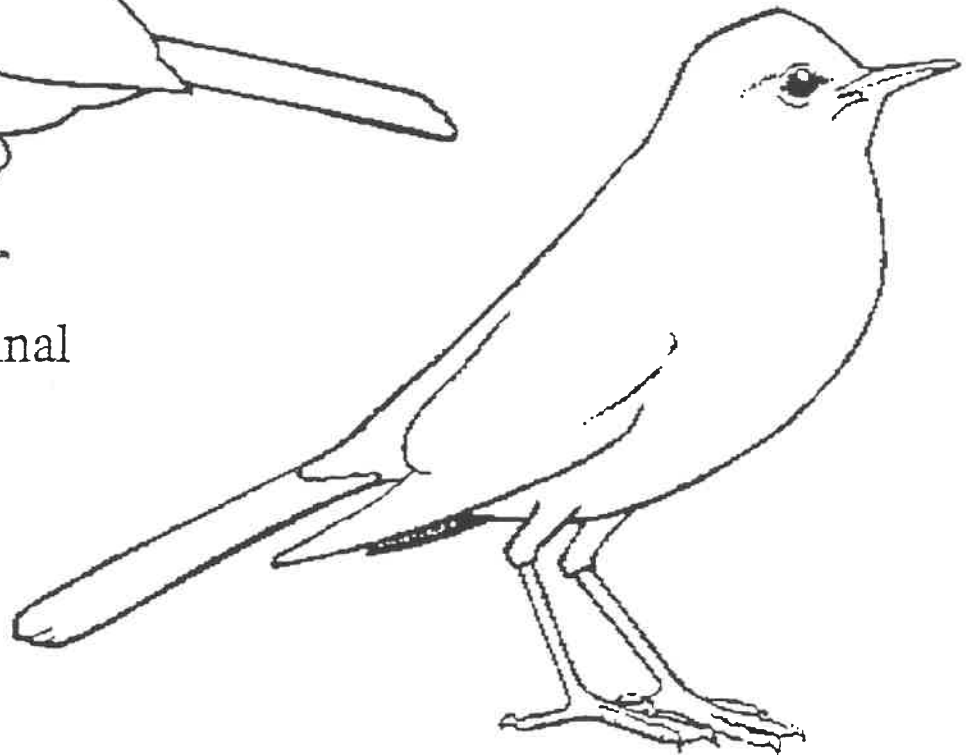
Black-Capped Chickadee



House Sparrow



Northern Cardinal

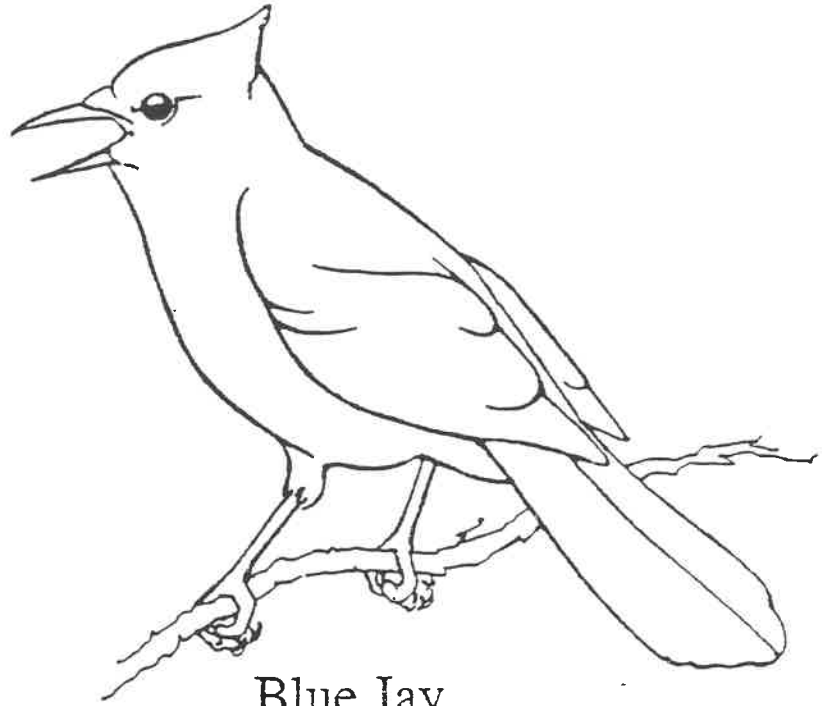


American Robin

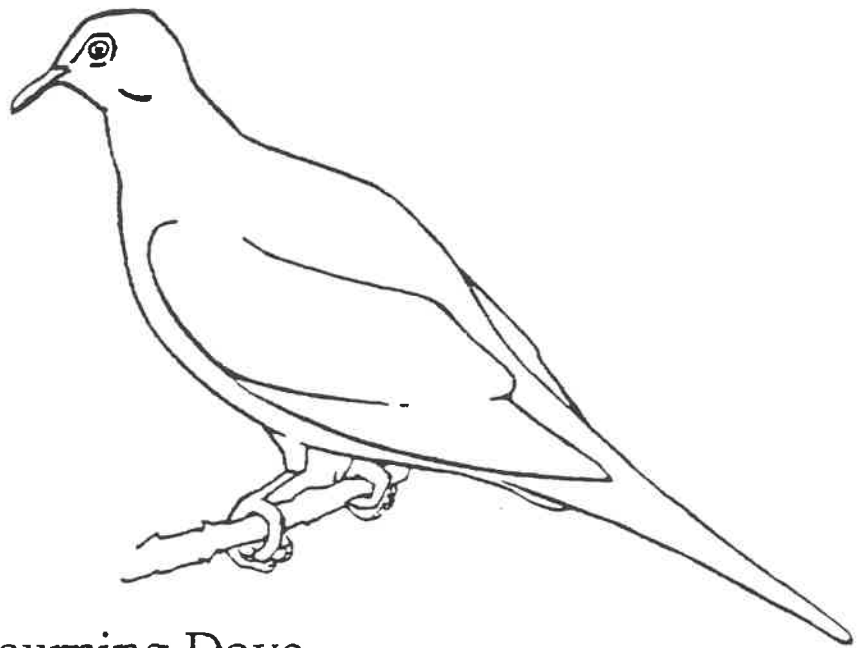
Birds



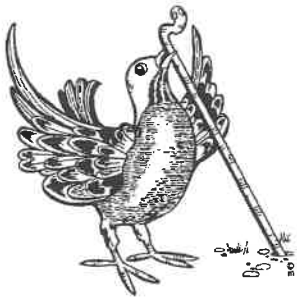
Downy Woodpecker



Blue Jay



Mourning Dove



◆ Activity 2 – Make a bird feeder

You will need the following things:

- an empty half gallon milk carton, coffee can, glass jar, coconut shell or pine cones.
- wire or string to attach the feeder to a tree limb
- small block of scrap wood about 1" X 2" that is 1/2" to 3/4" thick
- stapler, glue or tape
- small nail or pin

Here is what you do to make a feeder from a paperboard milk carton:

1. Cut 2 opposite sides out of the milk carton. Leave about 1" all the way around the cutout. The top should be stapled, glued or taped shut. Punch a hole in the top to tie the wire or string through.
2. Punch 3 or 4 holes in the bottom of the carton with a small nail or pin. Punch from the inside out so water can drain out.
3. Punch a hole in the center of the top. (Do not open the top)
4. Color the carton to look like the tree. Or cover it with leaves glued on with weatherproof glue.
5. Loop strings or wire through the hole in the top of the carton. This string or wire will go around the tree limb to support the feeder. Leave enough string or wire to tie the feeder at a height where you can refill it.
6. You may hang your feeder from a post or clothesline pole.
7. Bring your feeder to the fair.

Other bird feeder suggestions:

For seed: Coffee can with half a plastic lid on both ends.

Glass jar hung horizontally.

Empty coconut shell cut in half.

For suet: Mesh bag (like the kind onions come in).

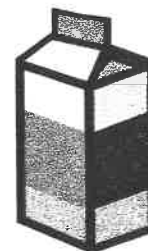
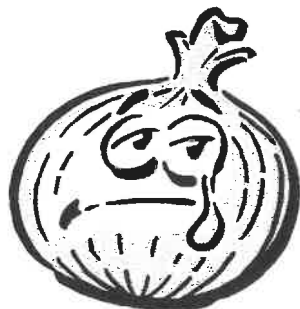
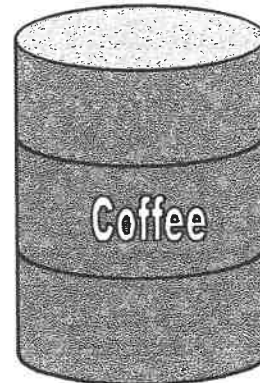
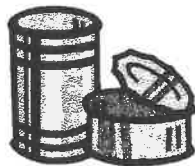
Coconut shell filled with melted suet.

Drill holes in log and fill with melted suet.

Other ideas: Slather peanut butter on pinecones.

Hang coconut half upside down (some birds love fresh coconut!)

String peanuts on wire or heavy string.



Some birds will nest in an old kettle or jug in the grass, or one placed securely in the fork of a tree. Hang up a hollowed out coconut that has an entrance hole up to 1 1/2" in diameter and see if anyone moves in.

◆ Activity 3 – Birdwatching

You will need the following things:

- Binoculars
- bird feed
- supplies for a bird feeder
- pencil and chart
- a quiet place to sit

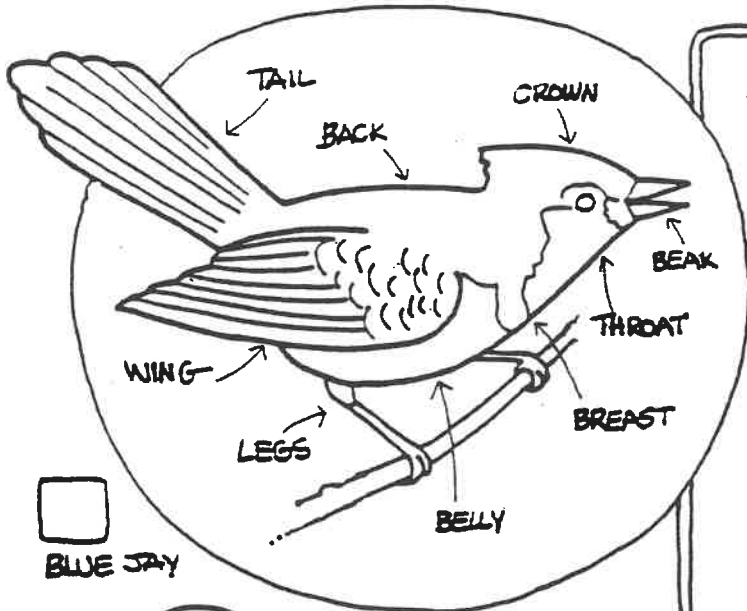
Here is what you do:

1. A quiet place to sit. You will need to be still for several minutes before the birds come around you. Perhaps you can watch the birds from inside your house? Birds feed in the morning hours. Place the feeder where you can see it from your breakfast table.
2. Binoculars – if you have a set to use or borrow? These make getting a closer view of the birds more fun.
3. Feed – birds like things like cracked corn, mixed birdseed, breadcrumbs, suet, and sunflower seeds.
4. Maybe make a tree feeder by spooning peanut butter on the scales of a pinecone and rolling the pinecone in birdseed. Hang the pinecone in a tree near your window. Remember, if you are doing this activity in the winter, when you begin to feed the birds you must continue to feed them until their natural food is available again.
5. Chart what you see. Keep your chart by the window near the birdfeeder. Draw pictures of the tracks you see. Ask your family to help too! Use a book from the library to help identify the birds.
6. Complete the chart. You may color it too. Glue it to a 14"X22" poster board. **Bring it to the fair.**

BIRD SPECIES	HOW MANY	DATE	TIME	LOCATION

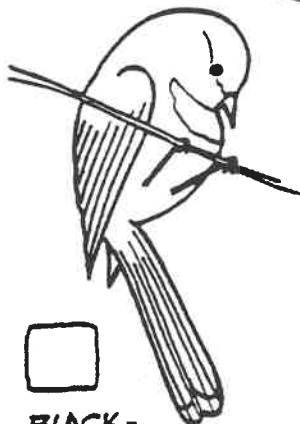
Birds I have seen

Put a check in the box by the birds you have seen. Color the birds to match how they look. You can draw any birds that are not pictured here.

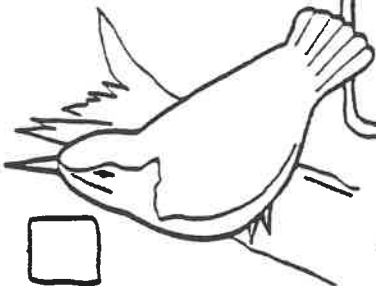


Draw and color other birds you have seen.

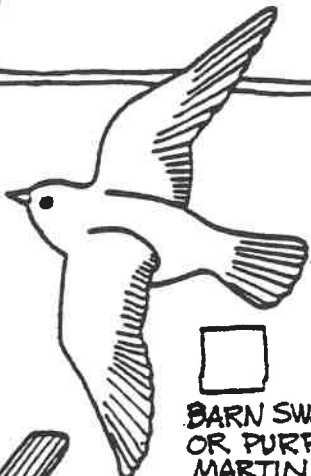
BLUE JAY



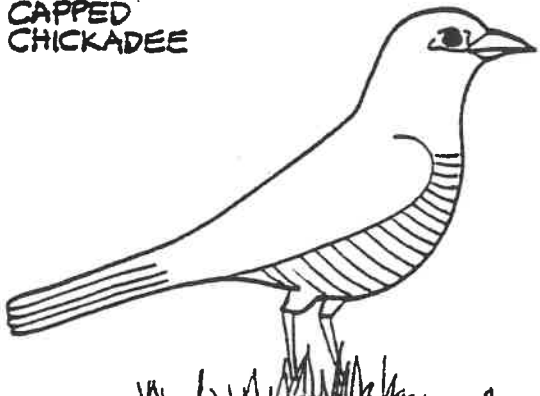
BLACK-CAPPED CHICKADEE



WHITE BREASTED NUTHATCH



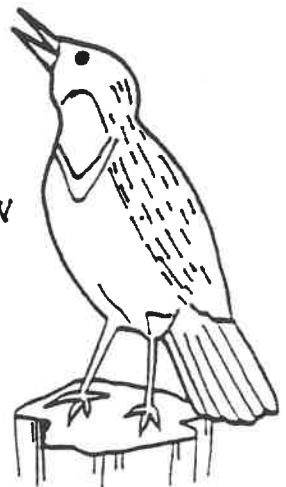
BARN SWALLOW OR PURPLE MARTIN



AMERICAN ROBIN



HOUSE WREN



WESTERN MEADOW LARK

◆ Activity 4 – How do birds fly?

You have probably noticed that birds fly in different ways. Crows and robins beat their wings about two times every second; starlings beat their wings 4 to 5 times each second. Chickadees are almost up there with hummingbirds, flapping their wings at least 27 times each second. How do they do it? They have really strong chest muscles and hollow bones. Try beating your arms as fast as a robin. That's three beats per second. How long can you keep up the flapping?

To build your own bird for flight you will need the following things:

1. Good quality paper.
2. Paper clips.
3. Pencil, ruler and stapler with staples.

Here is what you do:

1. With a sheet of good quality paper, fold it in half bringing the two short sides together. Crease this fold.
2. Open the paper.
3. Bring the lower left-hand corner up to the center fold creating a triangle. There will be some paper sticking out the top. That is OK. Crease this fold. Repeat this step with the right side.
4. With the paper still folded into a triangle, bring the right folded edge up to the centerline. There is a triangle point sticking above the body of the airplane. This is OK. Crease this fold. Repeat this step for the left side.
5. Fold along the centerline using the very first folds you made.
6. Lay the airplane on the side.
7. Measure up from the bottom fold approximately $\frac{1}{2}$ " to $\frac{3}{4}$ " at each end. These are your guide marks for folding down the wings. Mark them lightly with a pencil.
8. Carefully fold down the wing on the side facing you using the pencil marks as a guide. Crease this fold.
9. Turn the airplane over. Repeat this step for the other wing.
10. Fold the tip of the airplane's nose back into the body at the point where the wings begin.
11. Staple the body of the airplane about 1" behind the nose.
12. Slide a paperclip onto the nose for weight.
13. Congratulations! You have made a paper airplane.
14. Repeat these steps as often as necessary to get the airplane just the way you like it. Remember, it is OK if it doesn't turn out right the first time. You can always make another airplane.
15. Color or decorate your airplane. Bring it to the fair.

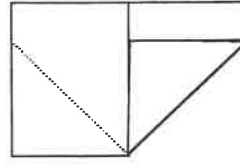
Follow the diagram as you make your airplane.



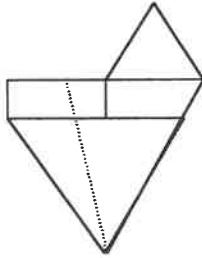
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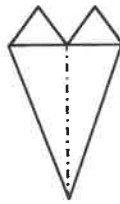
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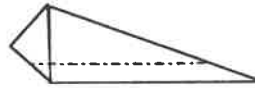
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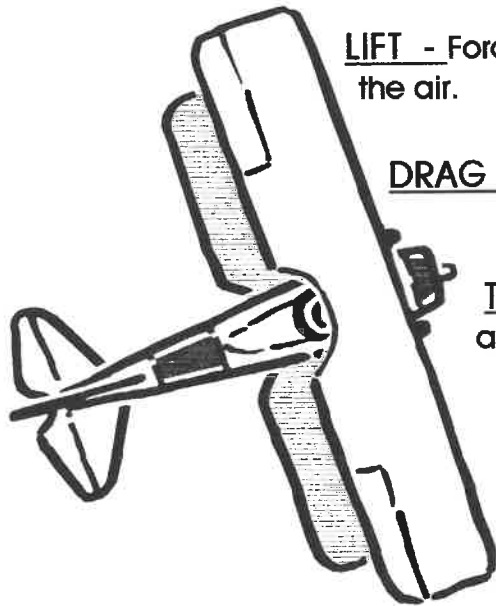


5.



6.

How do the birds fly? There are four forces that affect them and anything that flies. Even your paper airplane! Here they are:



LIFT - Force exerted by air on the wing as it passes through the air.

DRAG - Force caused by the air as it strikes the surfaces of the airplane.

THRUST - Force that moves the airplane through the air.

GRAVITY - Force of gravitational pull the Earth has.

Lift and thrust must exceed drag and gravity for a bird or plane to fly. Once they are in the air, lift and thrust must equal drag and gravity for them to remain in the air. When drag and gravity exceed lift and thrust, the bird or airplane comes down.

What provides the thrust for your paper airplane?

How do birds provide thrust for flight?

Watch several different birds fly. Talk about what you see. Do the birds flap their wings all the time? Have you ever seen a bird stay in the air without flapping its wings? Hint: Look for a big bird up in the air.

◆ Activity 5 - Insects

You will need the following things:

1. Three glass or plastic jars with lids.
2. Magnifying glass.
3. Tape, pen and slips of paper.



Here is what you do:

1. Capture three different insects placing one in each of the jars.
2. Close the lids tightly.
3. Use the pen to write this information on a slip of paper: Common name of the insect, the date, where the insect was captured, and your name.
4. Tape the slip of paper to the top or side of the jar. Bring the insects to the fair.
5. Write down what you observe about the insects.

How are they alike?

How are they different? List as many as you can think of.

◆ Activity 6 – Make a Chart of Animal Characteristics

You will need the following things:

1. Some continuous length of paper or several 11"X14" sheets.
2. Pen, pencil or marker.
3. Ruler.
4. Magazines, pictures or your own sketches of animals.

Here is what you do:

1. Make a chart that outlines some of the basic animal characteristics.
2. Make a heading for each section.
3. List under the heading some of the characteristics the animals possess.
4. Illustrate the chart with pictures or sketches.
5. Place the chart on a 14"X22" posterboard.
6. Bring it to the fair.

How many sections your chart has is up to you. It depends on how detailed you would like to get. Refer to the chart below to help you get started.

What similarities did you notice within each group?

What are some of the animals that aren't like the others in their group?

Here are some ideas for your chart.

Insects

- Three pairs jointed legs
- Three-part body
- Hard outer skeleton
- One or two pairs wings



Arachnids

- Four pairs legs
- Two-part body
- Hard outer skeleton

Sharks and Rays

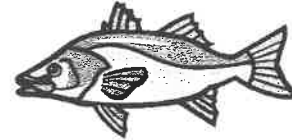
- Skeleton made of cartilage
- Rough skin
- Unequally divided tail

Bony Fish

- Scales or bony plates
- Equally divided tail

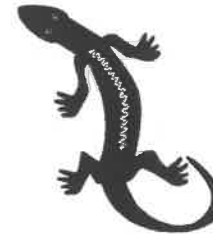
Amphibians

- First part of life in water
- Moist skin
- Four limbs
- Webbed feet



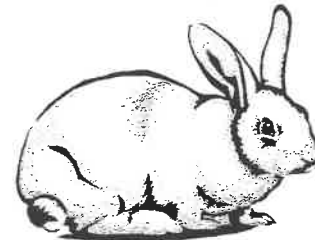
Reptiles

- Dry skin covered with scales or bony plates
- Four limbs
- Lay leathery-shelled eggs



Birds

- Warm-blooded
- Covered with feathers
- Front limbs are wings
- Lay hard-shelled eggs



Mammals

- Warm-blooded
- Covered with fur or hair
- Young drink mother's milk.



4-H Fair Exhibit

Listed here are the projects you can exhibit at the fair. Choose one project each year and bring it to the fair for judging. Check the fairbook or project manual for the date and time it is due. There may also be special project exhibit rules.

If you have any questions about your projects, talk to your 4-H Adult Leader or the Extension Office.

- ◆ Birds Poster
- ◆ Birds Mobile
- ◆ Bird Feeder
- ◆ Paper Airplane
- ◆ Three Insects
- ◆ Bird Watching Chart Poster
- ◆ Animal Characteristics Poster

Good Luck and Have Fun at the FAIR!