



SOUTH BEND-ELKHART AUDUBON SOCIETY

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Bird Activity Booklet

For ages 5 & up!

This booklet belongs to: _____

Bird is the Word, But What is a Bird?

Materials: pencil

Birds are a very special classification of animals that have special characteristics. All birds have feathers all over their bodies. Feathers help keep the bird warm. All birds have wings. That doesn't mean that all of them can fly. A few birds, like penguins and ostriches do not fly, but they still have wings! All birds have beaks on their face. Their beaks help them eat their food. Some birds have special shaped beaks to help them eat certain kinds of foods. We will discuss beak shapes in more detail later! All birds hatch from an egg. The mother bird will lay her eggs in a nest and sleep in the nest too. Just like mammals, all birds have backbones. This means that birds are vertebrates, just like you and me!

Now that we know some of the common characteristics of birds, see if you can complete the crossword puzzle below! The clues on the left will help you complete the puzzle.

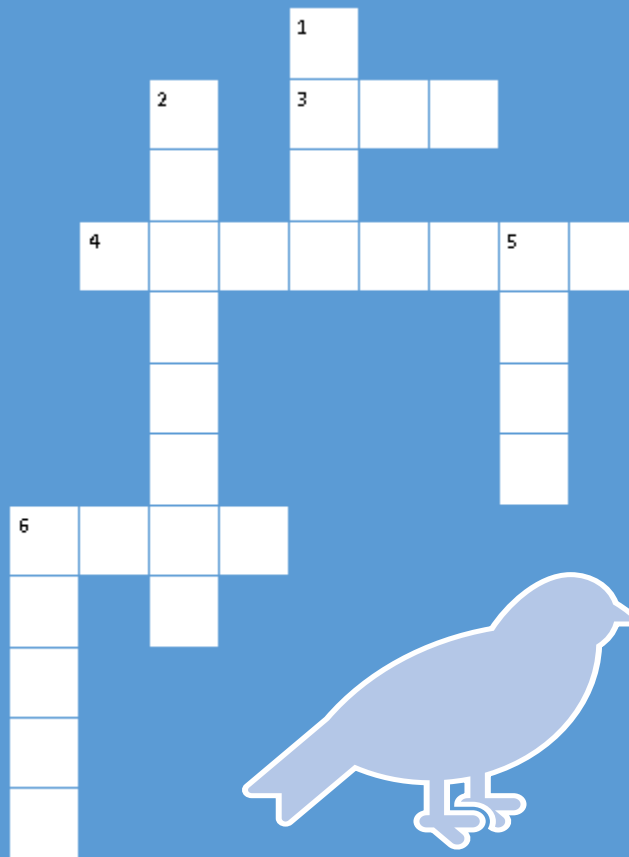
Crossword Clues!

Down:

1. What a bird has on its face. It helps them eat!
2. Body covering all over a bird's body
5. Where a bird sleeps
6. Body part used to help a bird fly.

Across:

3. What a bird lays.
4. What all vertebrates, including birds have (part of their skeleton).
6. Just like us, birds are _____ - blooded, which means they can regulate their own body temperature.



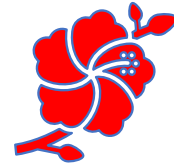
Answers: Down: (1) beak; (2) feathers; (5) nest; (6) wings Across: (3) egg; (4) backbone; (6) warm

Silly Looking Birds

Materials: pencil, crayons

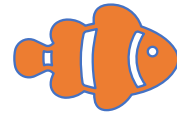
Birds come in all shapes, sizes, colors, and behaviors. We call this: adaptations. Adaptations are when an animal looks or act a certain way to help it survive in its environment! Bird beaks are a great example of different adaptations. Bird beaks are shaped differently to help a bird eat its diet. For example, a long narrow beak on a hummingbird helps it drink nectar from a flower, and a large thick beak on a parrot helps it to crack open nuts and seeds! Match the bird with its diet based on their beak shape:

Pelican



Nectar

Emu



Fish

Warbler



Grass

Hummingbird



Insects

For ages 8 and up: We are going to play a little activity on the next page where you design a bird with a series of adaptations. You will need someone to help you come up with different words to add to the story below. The best way to do this is to ask a friend or family member to come up with a word for each blank in the story. Don't read them the story ahead of time, or they might try to pick certain words. Write the words that they give you in the appropriate blanks below. When all the words are filled in, read the story out loud for them. In the space on the next page, draw a picture of the bird.

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Answers: Pelican eats fish; Emu eats grass; Hummingbird eats nectar; Warbler eats insects; Insects



Story of a Bird



The _____ -- _____ bird is a bird that is native to
color *body part* *adjective ending in "ing"*

the _____ of _____. They have _____ wings, _____
habitat *place (proper noun)* *adjective* *adjective*

legs, and a/an _____ beak. Their main diet is _____ and _____. Their
adjective *food item* *food item*

main predators are _____ and _____. They have an average lifespan of
animal *animal*

_____ years old, and the females can lay up to _____ eggs in one clutch! They build
number *number*

_____ shaped nests out of _____. Their call can be described as
shape *object*

_____ and _____. In the Fall, they migrate to _____, and
adjective *adjective* *place (proper noun)*

will stay here until early Spring. The journey to their wintering grounds is fast because they can fly up

to _____ miles per hour!
number

Picture of bird:

Birds on a Sugar Rush! *This activity is adapted from Arizona Audubon.*

Materials: for ages 10 and up: pencil

Just like butterflies and bees, some birds pollinate flowers too! The main types of birds that pollinate flowers are sunbirds, hummingbirds, and honey eaters! One of these species live in the United States. Do you know which one? Circle the one you think lives in United States!



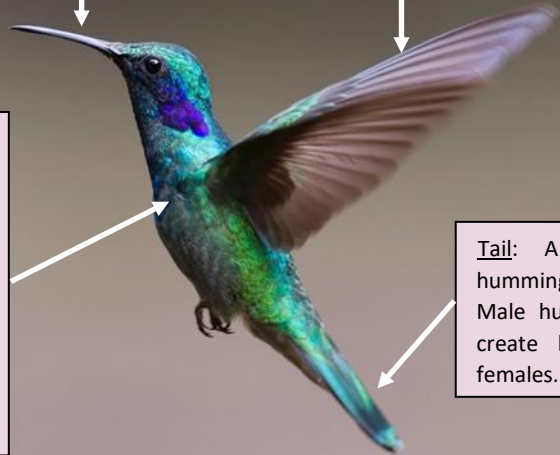
If you guessed hummingbirds, you are correct! Hummingbirds are the only bird species in the United States that pollinate flowers.

Hummingbirds are very special little birds that do a lot for such a small animal. First, we are going to learn a little bit about the different parts of their body. Then we are going to learn a dance and song, and pretend to be hummingbird!

Beak: Hummingbirds use their beak to drink nectar, catch flying insects, feed their babies, build nests, and preen their feathers. It's special because it's longer in proportion to their body than other birds, so they can reach down into long tube-shaped flowers to lick up the nectar with their long tongue.

Wings: Hummingbirds' wings allow them to fly forward, backward, hover, and fly upside down. Hummingbird wings beat 70 times per second in normal flight and up to 200 times per second when diving. Rather than flap their wings, hummingbirds rotate them in a sideways figure-eight shape. They can fly at 25 to 30 miles per hour and dive at up to 60 miles per hour.

Shoulders: Hummingbirds' shoulders allow their wings to rotate 180 degrees so that they can move their wings in a figure-eight pattern. This also lets them twist their wings, creating lift both on the upstroke and the downstroke. Because of this, hummingbirds are the only birds capable of hovering in the air!



Tail: A hummingbird's tail helps the hummingbird steer, like a rudder on a boat. Male hummingbirds also use their tails to create loud fluttering sounds to attract females.

Now that we know the different parts of a hummingbird, let's sing the following song to the tune of "Head, Shoulders, Knees, and Toes." Add in the song motions below as you sing the song!



***Beak, Shoulders, Wings, and Tail, Wings and Tail
Beak, Shoulders, Wings, and Tail, Wings and Tail
My journey is 3,000 miles long. I'm tiny, beautiful and strong!***



Song motions:

Beak: Put your arms on top of each other straight out in front of your face.



Shoulders and Wings: These two go together. Use your arms to make the shape of a figure eight on its side. ∞ This is how hummingbirds flap their wings.



Tail: Bend your knees and shake your bottom.



For ages 10 and up: continue onto the next page to learn more about some of the most famous hummingbirds around the world. Then, compare them to you by solving some fun math puzzles! There is room to work out each problem in the space provided.

While there are over 300 different type of hummingbird species across the North and South America, check out a few of the most famous ones below!

The Bee Hummingbird is the smallest hummingbird in the world. They are only 2.25 inches tall! That is about the length of a large chicken egg!



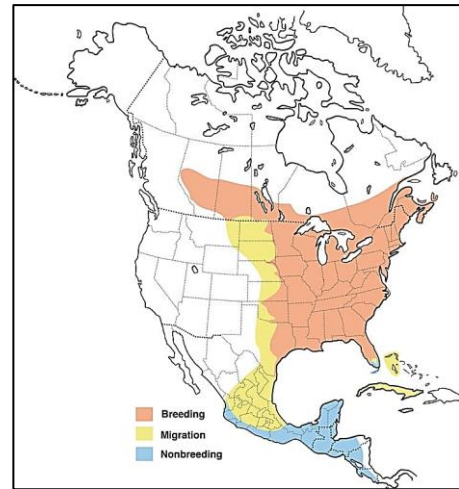
The Ruby-throated Hummingbird is the most widespread hummingbird in the United States! They are also the only one found regularly in Indiana!

The Sword-billed Hummingbird has the longest beak of all hummingbirds in the world! It's beak measures 4 inches long!



1. The bee hummingbird is only 2.25 inches tall. How tall are you (in inches)?
2. How many bee hummingbirds would have to be stacked on top of one another to reach your height? (*Hint: divide your height in inches by the bee hummingbird's height.*)

3. Look at the map of the ruby-throated hummingbird's range. What percentage of US states have ruby-throated hummingbirds? (*Hint: Divide the number of US states that have ruby-throated hummingbirds (include both breeding and migration) by the total number of US states.*) Write this as a percentage. _____% US states have ruby-throated hummingbirds.



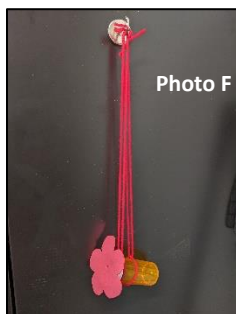
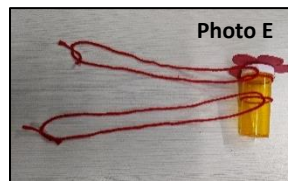
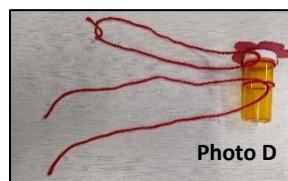
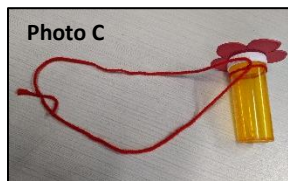
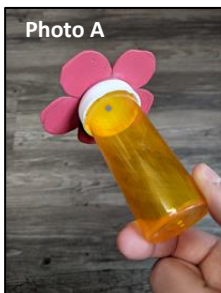
4. The sword-billed hummingbird's body is 5 inches. How tall are you (in inches)?
5. Their bill is 4 inches long. How long is their bill compared to their body? Write this as a percentage. Their bill is _____% as long as their body.
6. If you had a beak, and its length was the same ratio to height as a sword-billed hummingbird, how long would your beak be? (*Hint: multiply your height in inches by the percentage above.*)

Answers: Answers for numbers 1, 2, 4, and 6 will depend on how tall you are. 3. 78% (39 divided by 50); 5. 80% (4 divided by 5)

Make a Hummingbird Feeder

Materials: electric drill, drill bit (3mm-5mm), clean plastic orange container with lid, red decoration, red yarn, ruler, scissors, glue, water, table sugar, microwave safe bowl, tablespoon, ¼ cup measuring cup

Today we are going to make a hummingbird feeder for you to place in your backyard to help feed the ruby-throated hummingbirds.



1. **This first step needs to be done by an adult!** Using a drill and a 3mm-5mm sized drill bit, drill a hole in the middle of the lid.
2. Using glue, attach something red to the lid that will attract hummingbirds. In the photos to the left, a red foam flower was used. *Note: whatever you use, make sure it doesn't cover up the hole on the lid of the orange plastic container. The red foam flower also has a hole in the middle that is lined up with the lid hole.* (Photo A).
3. Use scissors and a ruler to cut a 3 feet long piece of yarn. Cut a second piece of yarn that is a few inches shorter. Take the shorter piece of yarn, and loop it around the end of the container closest to the lid. Tie the loop into a knot. (Photo B)
4. Tie the ends of the yarn together into a knot. (Photo C)
5. Take the longer piece of yarn, and loop it around the middle of the container. Tie the loop into a knot. (Photo D)
6. Tie the ends of the yarn together into a knot. (Photo E).
7. Screw the lid off, and carefully pour hummingbird food* into the container. Screw shut.
8. Hang the hummingbird feeder from the pieces of yarn from a tree branch or a hook outside. (Photo F)
9. Make sure the hummingbird feeder is tilted slightly upright so that the hummingbird food does not fall out.
10. To make sure the food doesn't spoil, the hummingbird food should be replaced once a week. When it is really warm outside, the hummingbird food should be replaced more often than that.

*How to make hummingbird food:

1. Measure out ¼ cup of water, and put it in a microwave safe bowl.
2. Heat the water in the microwave for at least 45 seconds.
3. Add 1 tablespoon of sugar to the water.
4. Stir the sugar and water mixture so that the sugar is dissolved.
5. Wait until the sugar and water mixture is cooled up a bit before pouring it into the hummingbird feeder.

Make Your Windows Bird Friendly

Materials: Bird Tracing Template (included with booklet) OR blank sheet of paper and pencil, plastic page protector, tablespoon, white craft glue, dish soap, cup, paint brush, markers

Have you ever been sitting at home and suddenly hear something hit your window, and you go investigate to see a bird on the ground outside barely moving?



Sadly, this occurrence happens all too often across the United States. When a bird hits the window, the bird either dies on impact, or suffers injuries that leave them as easy targets for predators like outdoor cats. It is estimated that 1 billion birds die from flying into glass every year in the United States!

So why do birds fly into windows? The reason is because birds cannot see glass! When birds come upon windows, they usually just see the reflection of their surroundings, and they think they are flying towards more habitat. Reflection is the return of light waves from a surface. An example of reflection is when you look at yourself in a mirror. Mirrors are a great way to see your reflection because they are really reflective! Birds do not understand the concept of reflection like humans do.

Let's look at the photo to the right. If you were a bird, and you flew up to this window, this window might look appealing to you! What do you see in this window that might attract a bird? Maybe the trees, the shrubs, or the grass!

Thankfully, there are several ways you can help prevent birds from flying into your windows. One simple way to prevent bird collisions is to keep your curtains

or blinds drawn, or closed during the day. This can help break up the reflectivity for the birds. Another way to help prevent bird collisions is to mark your windows. There are many different ways to mark-up your windows. Today, we are going to learn one method, and make your home's windows bird friendly! **Make sure you get permission from your parents or guardian before doing this project!**



The following instructions are adapted from New York Audubon Society. For their full instructions, you can visit: <https://bit.ly/3dtl66q>

Steps to make your windows bird friendly:

1. Decide on designs! Included with this booklet is a bird tracing template. You can use this, or you can come up with other design ideas on a blank sheet of paper and pencil.
2. Slip the bird tracing template or other custom designs inside of a plastic page protector.
3. Mix two tablespoons of glue and a couple drops of dish soap into a cup.
4. Use a paintbrush to fill in your designs with the glue/soap mixture on your page protector. You will want an even, thick coating. Make sure there are no gaps or thin, streaky sections. You may need to apply a second coat. Repeat as necessary.
5. Let dry. This will depend on the thickness of the glue you painted on, but will take at least two hours. The glue will become transparent as it dries—when it is completely transparent and smooth, that means it is dry.
6. Once the clings are entirely dry, it is time to color! Leaving the clings on the plastic, use markers (permanent or water-based markers are both fine) to color in your creations as you wish! *TIP: Make sure to color gently so as not to rip the decals.*
7. Once the marker ink is dry, you can carefully remove the clings from the sheet. You will need to peel them off slowly and gently to make sure the clings do not fold over and stick to themselves. If they do, you will very likely be able to separate it, but there is a possibility of a rip or tear.
8. Apply the decals to a window. The side pressed to the window should be the side you did *not* color. Place and gently smooth them on. Sit back, and admire your work! ***TIP: For maximum effectiveness against window collisions, decals should be placed no more than 2-4 inches apart on your windows.***

For other design ideas, see the examples below:



Let's go outside!

While outdoors, let's discover the world of birds! There are many species of birds that live in Indiana. Like we learned, the Ruby Throated Hummingbirds are only here in the summer, but the rest of the birds below can be found in Indiana year-round! Let's see how many birds you can find! Circle the birds below you find in your back yard!

Blue Jay



Northern Cardinal



American Robin



Mourning Dove



European Starling



American Goldfinch



House Sparrow



Ruby-Throated Hummingbird



Draw a picture of a bird you see:

What is your favorite thing about birds? _____

If you were a bird for a day, what would you do? _____

