

Mini Unit Study

13 Pages

The Amazing Hummingbird

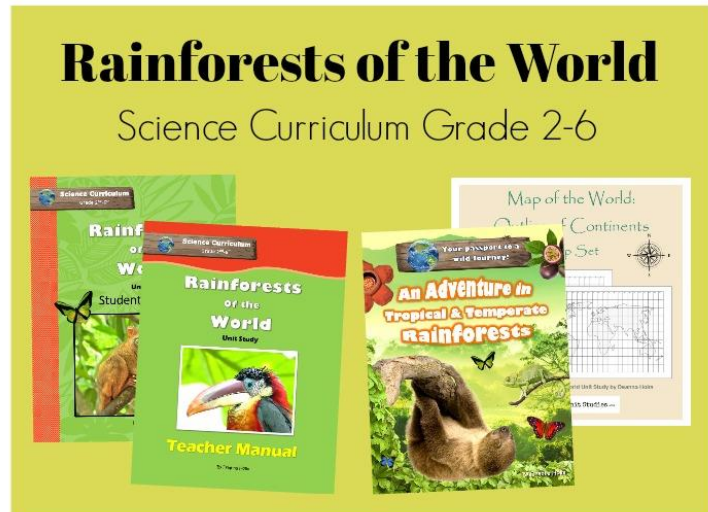
Grade 2-6



This Mini Unit Study about Hummingbirds is from my Rainforests of the World Science Curriculum Set. You and your kids will love the perfect mix of fun hands-on projects and academic lessons this curriculum offers.

Get this science curriculum today!

Deanna Holm



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Mini Unit Study: HUMMINGBIRDS

MATERIALS NEEDED

- ✓ Scissors, glue, & pencil
- ✓ Construction paper- any color
- ✓ Colored pencils or markers
- ✓ Liquid Elmer's glue (not glue sticks)
- ✓ Hot glue gun (to glue on the replicas)
- ✓ Model Magic by Crayola- white
- ✓ Exacto knife and cutting mat (to make slits for tabs)
- ✓ Ruler
- ✓ Brown marker
- ✓ Computer and internet for video link



Directions

1. Read about the hummingbird.
2. On the worksheet that says "The Amazing Hummingbird"- use an exacto knife to help your students cut the 3 black dashed slits. Make sure you cut them the exact size of the line, a smidge bigger is ok but not smaller. Their tabs will be inserted in these later on, if your slits are too small the tabs will not fit.
3. Glue The Amazing Hummingbird page onto a piece of construction paper using a thin line of Elmer's glue right on the edge of the page. Be sure they DO NOT TO GET ANY GLUE ON THE INSIDE, ONLY ON THE VERY EDGE. Set aside to dry.
4. On the Hummingbird Tabs, have your students measure the nest, hawk-moth, and bee hummingbird and write down the measurements on each tab. Point out to your students that these photos are close to the actual size.
5. Next have your students write out at least one fact they learned on each tab.
6. Cut out each tab. Insert the tabs into the slits on The Amazing Hummingbird page. The nest goes into the slot on the left, the moth into the middle, and the bird into the slot on the right.

Make Hummingbird Replicas

1. Have your students look at the Hummingbird Replica page. Using the white Model Magic, make a skull replica that is the same size as the orange outlines.
2. Use a pencil to poke a deep and wide hole for the eye socket on one side.
3. Color the beak with a brown marker. Set aside to dry for a few days. Then hot glue it onto The Amazing Hummingbird page in the box that says skull.



skull 1 1/8 inch

4. Make an egg replica that is the same size as the orange outline. Set aside to dry for a few days. Then hot glue into their Rainforest Book onto Student Workbook page 54 in the box that says egg.



egg 1/4 to 1/2 inch

5. Cut out the small feather. Glue it onto the box that says feather.
6. Color the hummingbird picture. Glue it onto the back of the construction paper so it's on the back of The Amazing Hummingbird page. You may want to allow your students to color this picture while you watch the video links.

WATCH VIDEO LINKS

This is Hummingbird Heaven 2:17 <https://www.youtube.com/watch?v=gaUhxQtNOwM>
Hummingbird builds tiny nests 2:37 <https://www.youtube.com/watch?v=MVOZ8tXI5Nc>
Hummingbird Hatching 1:40 <https://www.youtube.com/watch?v=bmiHTRQcWWM>
Hummingbird Nest with Egg 0:32 <https://www.youtube.com/watch?v=IWjmEpvqNX8>
Glue into their Rainforest Book.

Sample



Classroom Tip

Make paper trays for each student to put their replicas in to dry for a few days. Make out of recycled paper. Cut slits and fold each side. Staple to make a shallow tray. Write their name on the tray.



Hummingbird

Hummingbirds are named after the humming sound their wings make as they fly around from flower to flower. There are more than 300 varieties of this species and they all live in North and South America. The miniature Bee Hummingbird is the smallest one. It grows to a miniscule size of only 2 inches long. The largest of the species is the Giant Hummingbird from South America. It can grow up to 8 inches long.

Hummingbirds use their long tongues to lap up nectar found in the center of flowers. This species of bird has a greater advantage over other birds in finding food because they can hover over plants to eat. Other birds must perch on a branch making it harder to reach certain kinds of food.



Migration

Hummingbirds begin their migration to Mexico and Central America in July. In order to make this long nonstop flight, of up to 500 miles, they will store up a layer of fat that is equal to half their weight.

Pollination

Some plants grow two different kinds of flowers. These are male and female. In order for the flower to reproduce, the pollen from the male flower must be transferred to the center of the female flower. A hummingbird is the perfect pollinator because it will transfer the pollen as it visits each flower, eating the sweet nectar. The hummingbirds and these flowering plants have a **symbiotic** relationship. This means they each need the other for survival.



Unique Features

These tiny birds can't walk or jump because their legs are too short. If they were to injure their wings they wouldn't be able to move and their chance for survival would be slim. A long tongue makes it easy for them to reach the nectar in the center of a flower.



Ecosystem

God gave hummingbirds a special purpose making them important to our ecosystem. An ecosystem is the cycle of life working together. This is when plants, animals, organisms, water, and soil support each other for continual survival. Without hummingbirds, many plants and animals would become extinct.

Is That a Hummingbird?

There is a moth that looks and behaves like the hummingbird. It's called the Hummingbird Hawk-Moth. It's just a little smaller than the Bee Hummingbird and it feeds on the same flowers using a proboscis.

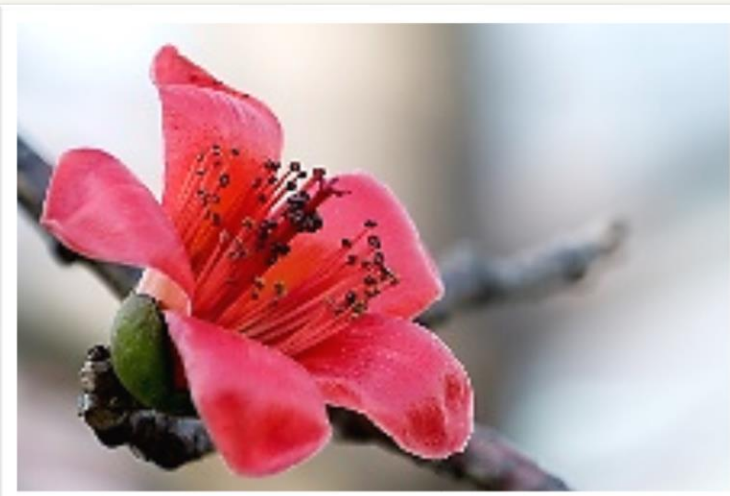


Sword-billed



Broad Billed





Flowers

Growing plants that have bright colored flowers will attract hummingbirds. In the spring time, you can create a hummingbird garden by planting their favorite flowers such as cardinals, bee balm, columbine, and zinnias. Other flowers that will attract these birds are lupine, salvia, bleeding hearts, trumpet creeper and petunias.

Predators

Cats, snakes, and hawks are common **predators** of the hummingbird. There are a few animals that have been known to hunt and kill hummingbirds that you may not think of. These are the praying mantis, spiders, wasps, and even frogs! Eyelash vipers are also predators of the hummingbird. They have scales above their eyes that look like eyelashes. These vipers have been known to hide near flowers and snatch a hummingbird for dinner.



World's Strongest Bird *Did you know that...*

- Hummingbirds can fly upside down, forward, and backward and can hover like a helicopter?
- They can take 250 breaths per minute?
- They can lick 10-15 times a second?
- They can fly 30-60 miles per hour and fly 500 miles nonstop across the Gulf of Mexico during migration? (How long would that take them at 30 miles per hour?)
- They are fearless and aggressive when protecting their nest... and don't even think about messing with their flowers; they are very territorial.
- Their large pectoral muscles make up 30% of their weight to help those wings move with speed?
- Their wings beat a whopping 50-200 times per second?



Wing Structure

Hummingbirds have a wing structure different from all other birds in the world. Their shoulder has a ball joint which allows them to rotate it 180 degrees. This gives them the ability to hover and even fly upside down. Their wing bones are very porous and hollow which makes them light weight. The pattern of movement their wings make when flying is in an oval. When they hover, their wings move in a figure-8 pattern.



Violet Saber Wing



Bird Feeder

Attract hummingbirds by setting out a bird feeder. You can make your own sweet nectar for them by mixing 1 cup of warm water with $\frac{1}{4}$ cup of sugar, stir until the sugar is dissolved. Next, pour it into a hummingbird feeder. Be sure to hang it at least 5 feet off the ground to protect them from those kitty cats!

Ruby-throated Hummingbird

The ruby-throated hummingbird is a common species in North America. It measures 3 $\frac{1}{2}$ inches in length. It lays 1-2 eggs in a nest that measures slightly over 2 inches. The eggs are about the size of a jellybean- only $\frac{1}{4}$ to $\frac{1}{2}$ inch long. When it builds a nest, it uses spider web silk to attach it to a branch. The eggs take 16-18 days to fully mature. When the baby birds hatch they are only 1 inch in length. They remain in the nest until they are fully grown. The smallest feathers in world cover their bodies.



THE AMAZING HUMMINGBIRD!

Name: _____

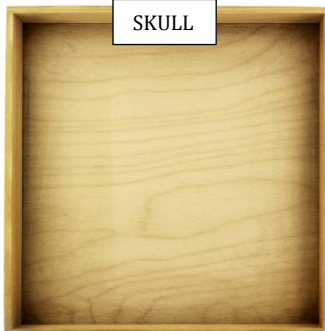


Hummingbird Replicas

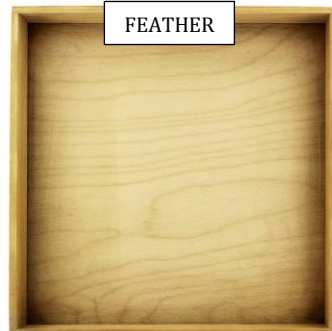
EGG



SKULL



FEATHER



Hummingbird

Tabs



RUBY-THROATED HUMMINGBIRD NEST

Measurement

Hummingbird Facts

[illegible]

HUMMINGBIRD
HAWK-MOTH

Measurement

Hummingbird Facts

[illegible]

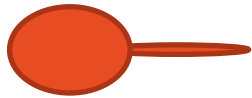
BEE HUMMINGBIRD

Measurement

Hummingbird Facts

Hummingbird Replicas

Hummingbird Skull



skull 1 1/8 inch

Hummingbird Egg

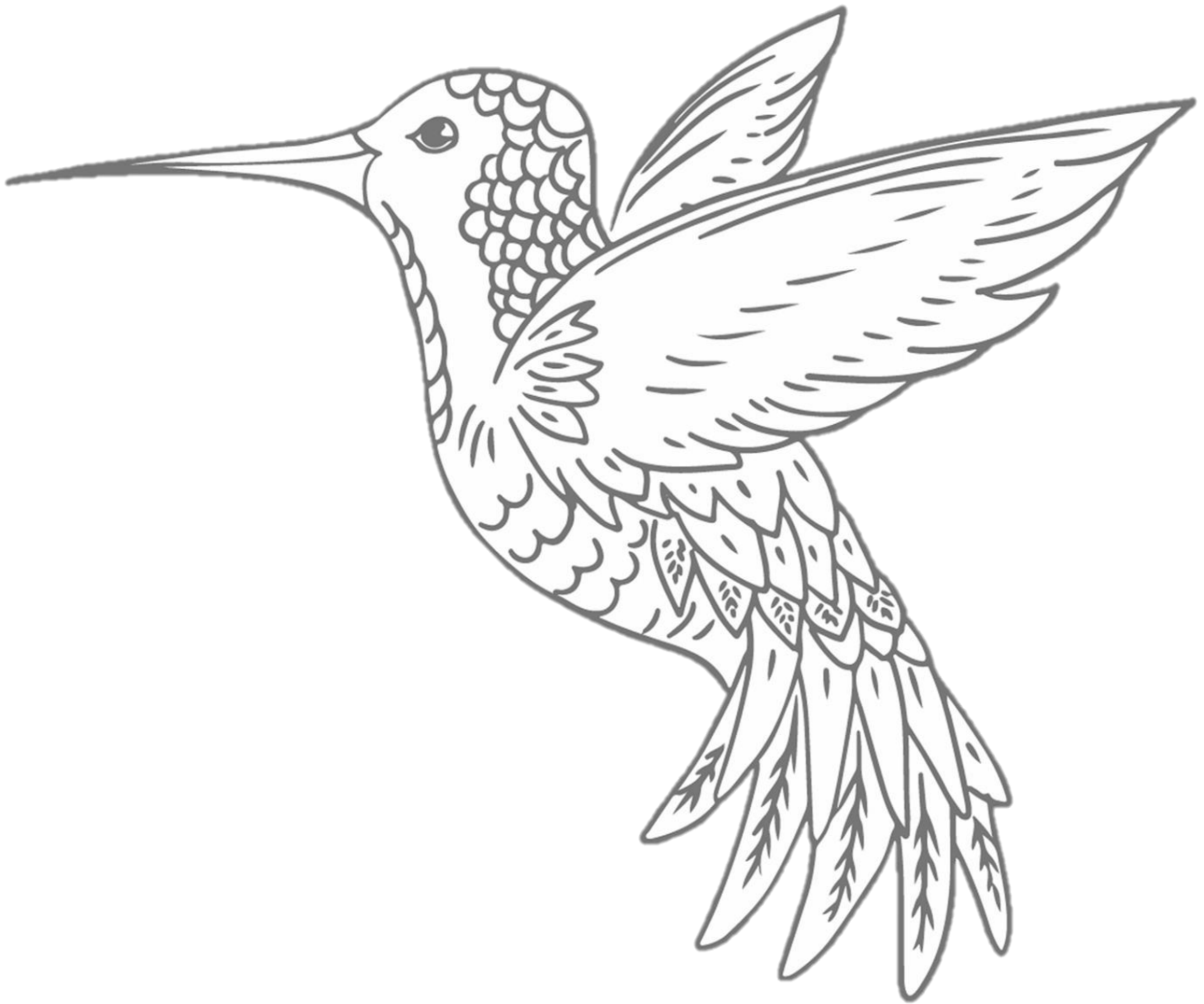


egg 1/4 to 1/2 inch

Hummingbird Feather



Hummingbird



By: _____

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