Ruby's Birds

Toolkit Activities

The Longwood Gardens Community Read is a program designed to encourage reading for pleasure and start a conversation. Focusing on literature about gardens, plants, and the natural world, we feature an exceptional book annually (paired with similarly themed younger readers' book) through a variety of programs, discussions, and lectures across all community partner organizations. For more information about the Community Read, go to www.longwoodgardens.org/community-read.





Ruby's Birds by Mya Thompson Illustrated by Claudia Davila

Overview / Synopsis

Meet Ruby. She's got energy to burn. She plays the piano – LOUDLY. She dances around the apartment – LOUDLY. She sings songs she makes up herself – LOUDLY!

When her downstairs neighbor, Eva, invites her on a nature walk through Central Park, can Ruby channel all that energy into spotting the amazing birds that surround her?

Use what you learn from Ruby to find all the birds hiding in the pages of this story – and in your own neighborhood!

This toolkit is designed for use by teachers / librarians / after-school advisors / parents to enhance learning moments with children ages 3-7.

Activities

Bird Seed Investigation Design a Bird Nest Beak Blitz

Extend the Story

Ruby's Birds Teacher Guide
The Cornell Lab of Ornithology K-12 Education





Meets the following Next Generation Science Standards:

K-LS1-1 From Molecules to Organisms: Structures and Processes

Use observations to describe patterns of what plants and animals (including humans) need to survive.

K-ESS3-1 Earth and Human Activity

Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.

Meets the following Common Core standards:

CCSS.ELA-Literacy.RL.K.2

With prompting and support, retell familiar stories, including key details.

CCSS.ELA-Literacy.RL.K.3

With prompting and support, identify characters, settings, and major events in a story.

CCSS.ELA-Literacy.RL.K.10

Actively engage in group reading activities with purpose and understanding.

CCSS.ELA-Literacy.RL.1.2

Retell stories, including key details, and demonstrate understanding of their central message or lesson.

CCSS.ELA-Literacv.RL.1.3

Describe characters, settings, and major events in a story, using key details.





Bird Seed Investigation

Materials Needed

- Bird seed (choose 3-4 kinds)
 - Mixed seed
 - Black oil sunflower seed
 - Regular sunflower seed
 - Millet
 - Shelled / cracked corn
 - Peanuts
- Labeled open dishes (ex. paper plate or bowl, plastic container)
- Binoculars (optional)
- Bird ID options
- Bird Tracking sheet (1 / student)
- Menu sheet (1 / student)
- Arts and crafts supplies

Directions

- It may take birds some time before finding new sources of food, we recommend placing bird food out a few days before doing this investigation with students.
- Check with students for any specific food allergies before beginning.
- Ask students to name some of their favorite foods.
- Explain to students that just like people, different birds have different food preferences. Today we will be doing an experiment to see what kind of seeds different species of birds prefer.
 - Have students fill each dish with a different kind of bird seed.
 - Label each dish of seed.
 - Go outside and place the seed containers in a spot where birds are likely to visit. If possible, find a spot that is visible from a window.
 - Take students back inside to observe from a window or have them quietly gather outside away from the dishes. If you have binoculars, students could use them to observe the birds from a distance.
 - o As students see birds visiting the seeds, they should record their findings.
 - If no birds are seen, students can research birds in the local area.
 - To help students identify birds
 - Use the birds identified in Ruby's Birds
 - Download The Cornell Lab Merlin app
 - Use a bird ID book from the library
 - Visit the following website: https://www.birds.cornell.edu/k12/bird-id/





Bird Tracking

Type of Seed	Species and # of Bird
Black Oil Sunflower	Blue Jay (2) Sparrow (I) Mourning Dove (2)





- Now that we've seen our local birds' food preferences, let's pretend our building is a restaurant serving our local birds.
 - Have students pretend the building is a restaurant and design a menu based upon findings from the experiment.
 - Students can include a restaurant name, menu items, prices, and include pictures.





Restaurant Menu

Design your own restaurant menu. Fill in the blank areas as directed and add your own fun personality to your place!

Restaurant name, type of restaurant, and website

Food Item 1 with description, price, and picture

Food Item 2 with description, price, and picture

Food Item 3 with description, price, and picture

Specialty 1 with description, price, and picture

Specialty 2 with description, price, and picture



Menu Items		
Specialties		
eposialités		
Drinks		

Design a Bird Nest

Materials Needed

- Net fabric pieces cut in 6" squares (1 / student)
- Nest building materials
 - https://www.audubon.org/news/what-nesting-materials-are-safe-birds
- Stapler
- Recycled / upcycled materials
- Plastic egg (1 / student)
- Arts and crafts supplies (including glue and scissors)

Directions

- Not all birds are nest builders. Some birds nest in holes in trees or on the ground.
 Nests can not only be found in trees, but also in shrubs, on the ground, in barns,
 or other places. Different birds have different ways of nesting. Nests can be
 made out of various materials and come in all shapes and sizes. Birds build
 nests to protect their young.
- Today we are going to make little "bags" of nesting materials to help birds build their nests.
 - Have students take a square piece of net fabric. Lay the square on a table.
 - Have students choose a small amount of nest building supplies and place them on the square of netting.
 - Have students fold up the corners of the netting and staple at the top to essentially create a little "bag" of nest building materials.
 - Students should cut a few holes into the "bag" when they get home so the birds can access the materials and take out what they want.
 - Students can hang the "bag" of supplies from a tree branch, on a fence post or they can lay it on the ground. In the coming weeks, they can be on the lookout for birds that might visit the "bag" and check the area to see if those nest materials were used.
- Using recycled and upcycled materials students will pretend to be a bird and build a nest to lay an egg.
 - Give each student a plastic egg and access to the recycled / upcycled and arts and crafts materials.
 - Students should use their creativity to build a bird nest to protect that will protect an egg.





Beak Blitz

Materials Needed

- Bird Beaks (1 beak / student)
 - Plastic fork
 - Plastic knife
 - Tweezer
 - Cocktail straw
 - Slotted spoon
- Bird Food
 - Pennies
 - Pipe cleaners
 - Rubber bands
 - Lima beans
 - Marbles
 - Washers
 - Swedish fish or small plastic fish
- Containers (ex. paper bowls, plastic containers) (1 / student)
- Large paper plates
- Beak Blitz handout (1 / student)
- Construction Paper
- Twine / yarn / string
- Scissors
- Glue
- Hole punch
- Markers / crayons / colored pencils

Directions

- Each bird has a specialized beak that helps determine its diet. Different birds have different types and sizes of beaks which allow them to eat things.
 - Spread out the bird food on a plate and place into the center of a table where all students can reach.
 - Give each student one container ("bird stomach") and one beak.
 - Have students use their beak to each eat as much bird food as possible in one minute by picking up the food with the beak and putting it into their "stomach".
 - After time is up, have students analyze their "stomachs" and record their findings on the Beak Blitz sheet.





- Repeat activity until students have had the chance to try 2 3 different beaks.
- Explain to students that each food is a symbol. Ask students what they think the different foods represent in real life.
 - Rubber bands, pipe cleaners = worms, caterpillars
 - Lima beans, marbles = seeds, nuts, bugs
 - Washers = a flower full of nectar
 - Fish = fish
- Explain that each beak tool also represented a real beak type. Ask students to identify a bird for each beak shape.
 - Small straw = Hummingbird (good at picking up washers and rubber bands)
 - Plastic knife = Woodpecker (good at picking up rubber bands, washers, pipe cleaners and possibly pennies)
 - Plastic fork = Hawk, Owls, Eagles (good at picking up rubber bands, washers, pipe cleaners, pennies and beans
 - Slotted spoon = Spoonbills, Pelicans (good at picking up most things but prefer fish)
 - Tweezers = Most songbirds (good at picking up most things but love seeds)
- Now that students have explored different beaks, students can make their own beak to take home.





Beak Blitz

Type of Beak	Food Type and Amount
Plastic Fork	Rubber bands (4) Pennies (2) Pipe Cleaners (2)





Make Your Own Beak

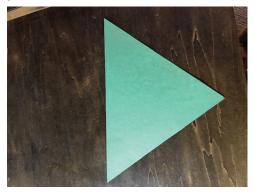
1. Fold one corner of a sheet of construction paper to the opposite side, matching up the edges evenly. This should form a triangular flap and leave some paper sticking out from the bottom on one side.



2. Cut off the excess paper that sticks out and unfold the triangle so it looks like a diamond shape.



- 3. Put glue along the two bottom edges of the diamond.
- 4. Fold the triangle down along the crease and press the edges together. Let the glue dry. Allow students to decorate the beaks with markers, crayons or colored pencils.



5. Fold the triangle in half from left to right and crease well. Unfold the paper. The crease should form a peak and the top edge of the triangle is still the folded edge.



6. Fold the top edge down about ½" and crease well. Punch a hole in both sides of the triangle under the small flap you just made.



7. Cut 2 pieces of string about 12" long. Tie one end of each string through each hole.



8. Place beak over the students nose and tie the two pieces of string together behind their head.





Extend the Story

Ruby's Birds Teacher Guide

- The Ruby's Birds Teacher's Guide features activities that target national science math, writing and art education standards for grades K-3. This website provides background information and digital content to complement the printable guide.
- https://www.birds.cornell.edu/k12/rubys-birds/

The Cornell Lab of Ornithology K-12 Education

- From free curricula to all-inclusive kits, the Cornell Lab of Ornithology has a wide variety of lessons and activities to captivate learners of all grade levels. The Cornell Lab of Ornithology K-12 team engages educators around the nation to assist in content development that is user friendly, meets NGSS standards and inspires students.
- https://www.birds.cornell.edu/k12/get-started/



