



## Topic: Birds

### Curriculum Planning Template – Somerville Early Education

#### Trajectory for Project Inquiry: Planning from the Big Idea

*Consult ELA Pacing & Curriculum Guides, Big Idea Guides, & Building Blocks Math Pacing Guide*

#### Big Idea(s) about birds:

- Birds have feathers.
- Some birds can fly and some cannot.
- Birds are living things and grow in an egg.
- Birds build a home called a nest.
- Birds have a beak or a bill, but they don't have any teeth.
- Living things have specific characteristics that are different from non-living things.

#### Project Approach: Working with Big Ideas

(Picturing the Project Approach 2017, Sylvia Chard, Yvonne, Kogan, Carmen Castillo)

- Phase 1: Beginning the Project
- Phase 2: Developing the Project
- Phase 3: Concluding the Project

#### Anti-bias Education Goals and Outcomes(Derman-Sparks, Edwards and Goins, 2020)

**Goal 1: Identity** - Each child will demonstrate self-awareness, confidence, family pride, and positive social identities. *Teachers will nurture each child's construction of knowledgeable and confident personal and social identities.*

**Goal 2: Diversity** - Each child will express comfort and joy with human diversity; accurate language for human differences; and deep, caring human connections. *Teachers will promote each child's comfortable, empathic interactions with people from diverse backgrounds.*

**Goal 3: Justice** - Children will increasingly recognize unfairness (injustice), have language to describe unfairness, and understand that unfairness hurts. *Teachers will foster each child's capacity to critically identify bias and will nurture each child's empathy for the hurt bias causes.*

**Goal 4: Action** - Children will demonstrate empowerment and the skills to act, with others or alone, against prejudice and/or discriminatory actions. *Teachers will cultivate each child's ability and confidence to stand up for oneself and for others in the face of bias.*

#### Selected Anti-bias Objectives for Birds

- I can describe some ways that I am similar to and different from people who share my identities and those who have other identities.
- I want to know about other people and how our lives and experiences are the same and different.

## A TRAJECTORY OF INQUIRY

### Phase 1 – Beginning a Project: Starting Out And Setting The Stage

Sample Teacher Brainstorm/Planning Web: Add your own ideas!

#### Habitats

Where do birds live?  
How do birds live?  
What types of nest do birds build (materials, size, location)

#### What makes a bird a bird

How do birds fly (feathers and wings)  
How do birds communicate? (songs and calls)  
What is the role of the beak?  
How do talons help birds?

**Birds**

#### Bird Life

Life Cycle-From egg to chick  
Eggs-color and size  
Bird families

#### Backyard Birds and

#### Beyond

Birds that live in our neighborhood  
Birds from around the world  
Migration

Create a new web with children once a direction has been defined

Surface prior knowledge. Set the Stage: Generate curiosity: Pose questions, read a high interest book, take a field trip

#### Questions you might ask children:

- What sounds do birds make? Are they all the same?
- What are nests? How are they made? Do all birds build a nest?
- How are beaks useful to birds? Why are they different?
- What are feathers? How do they help birds?
- Do all birds live in trees?
- What is migration? Do all birds migrate?

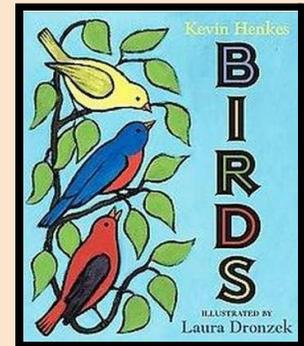
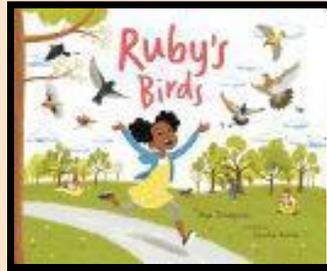
## Make connections to children's lives

**Walk around the school/community and observe the birds in the neighborhood.** Engage in conversations about birds. Some questions you might ask. Chart children's responses.

- Do you hear and see birds at home or on your way to school? What color/size are they?
- Do you know the names of any birds?
- What do you notice the birds doing?
- Have you noticed nests in the trees near your house or school?
- Do you have or know someone who has a bird as a pet?
- How do you think bird families take care of one another? Is that the same or different from your family?

### Suggested Books:

- Birds Make Nests by Michael Garland
- [Ruby's Birds](#) by Mya Thomson
- [Birds](#) by Kevin Henkes and Lauren Dronzek.



### Resources:

#### [All About Birds](#)

[Online bird guide, bird ID help, life history, bird sounds from Cornell](#)

**Prepare the environment with materials to promote discussion and exploration of birds.**

Show children pictures of backyard birds, some they may already be familiar with (robin, cardinal, blue jay & mourning dove). The state bird of Massachusetts is the black capped chickadee

- Invite children to explore a selection of artifacts (feathers, nest, an egg, toy birds)
- Listen to bird calls here [Backyard Birding: Look and Listen](#) from Zoo New England



## ***PHASE 1 – Beginning a Project -Defining A Possible Investigation or***

### **Direction:**

Generate KW (Know, Want to know) Chart: What do we know or think we know about \_\_\_\_\_ ?

#### [Expand Children's Thinking:](#)

*So, now that we **know** some information and have some ideas about \_\_\_\_\_, what should we investigate?*

*It seems that you are curious about \_\_\_\_\_?*

*Brainstorm a list of all the things the children Want know about \_\_\_\_\_.*

## Possible Investigations to your explore your topic of interest

### Investigate what makes a bird a bird

- Explore the characteristics:
  - 2 feet (known as bipedal)
  - Feathers & wings (most birds fly)
  - Beak or bill with no teeth
  - Lay eggs

### Investigate the life cycle of a bird (egg, hatchling, chick, fledgling, adult bird)

- Choose a bird and explore their life cycle from egg to full grown bird

### Investigate nest building

- Do all birds build a nest? What materials do they use? How & where do they build them?
- Compare bird nests from different countries
- Compare nests of different sized birds (humminbird versus stork)

### Investigate feathers and flight

- Investigate how birds fly, their feathers and wingspan.
- What birds don't fly? Why?

### Compare two backyard birds.

- How are they the same? How are they different?

### Investigate and compare other birds.

- A backyard bird with a bird from a different region of the United States or another country.
- How are they the same? How are they different?

**Birds Around the World:** there are many species of each bird and this list highlights some of the countries they live in. Click [here](#) for picture word cards

**Emu:** Australia

**Torogoz:** El Salvador & Nicaragua

**Quetzal:** Guatemala

**White-Headed Mousebird:** East Africa, Somalia & Kenya

**Toco Toucan:** South America

**Mandarin Duck:** China, Japan & Siberia

**Flamingos:** South America, Africa & North West India

**Adelie Penguin:** Antarctica

**Peacock:** India

**Red Crowned Crane:** China

**Atlantic Puffin:** Europe

**Bee Hummingbird:** Cuba

**Crested Caracara:** Mexico, Central America

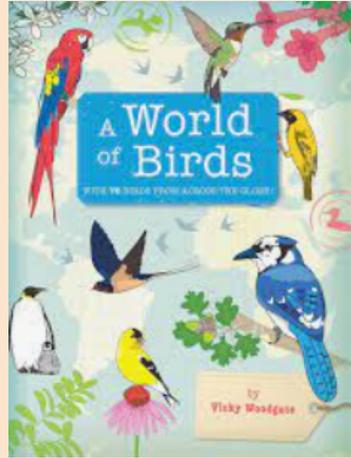
**Birds of Paradise:** Papua New Guinea

**Kiwi:** New Zealand

**Common Nightingale:** Iran

## Literacy Connection

- A World of Birds by Vicky Woodgate



## EXPLORING AND LEARNING MORE *(Phase 2 – Developing a Project)*

Continue to add to the knowledge base, add activities and experiences, field trips, find experts, plan classooks, family engagement, etc.

### POSSIBLE FIELD SITES:

- The neighborhood and parks near the school or program.
- Pet store.
- **Drumlin Farm:**

[Go Birding at Drumlin Farm](#)

- **Habitat Education Center:**

[Habitat Education Center & Wildlife Sanctuary](#)

### POSSIBLE FIELD SITES:

- A staff member, parent or family friend who enjoys birding.
- An ornithologist (bird scientist).
- A teacher/parent that has a bird as a pet.
- **Mass Audubon:**

[Programs for Schools at Drumlin Farm](#)

- Tufts Veterinary Students:

[Tufts Wildlife Clinic – at Cummings Veterinary Medical Center](#)

## **Possible Projects (Use one of the following ideas, or co-create an emergent project with your children):**

[https://www.dnr.state.mn.us/mcvmagazine/bird\\_songs\\_interactive/index.html](https://www.dnr.state.mn.us/mcvmagazine/bird_songs_interactive/index.html)

**Bird to Self Connection:** as children learn about birds and how they live, explore the similarities and differences between themselves and their families. Who takes care of you at home?

### **Possible Activities to create Culminating Project**

- Small group can research facts about birds
- Create a bird fact class book.
- Build a Birdhouse to hang at home or school
- Build birdhouse for home or the school garden



## EXTENSIONS/COMPLETION

Reflect on next steps, extensions of content, new directions.

### Ideas for Sharing Learning/Work:

- Family breakfast to share the work.
- Document bird sightings in the neighborhood by photographing and labeling. Create a wall with documentation.

### Possible Extensions:

- Compare a backyard bird and its nest with a squirrel. What is similar, what is different?
- Explore migration. What birds migrate? Where do they migrate to and why? What other animals migrate. Why?
- Visit a wildlife sanctuary such as [www.massaudubon.org](http://www.massaudubon.org)
- Learn about birds from another country.

### Resources:

- Mass Audobon.org [OUR FEATHERED FRIENDS](#)
- [Montessori-Inspired Bird Unit {Hundreds of Resources}](#)

Content and Room Areas	Activities Connected to Big Idea
<b>Blocks</b>	<p><b>Props/Provocations:</b></p> <ul style="list-style-type: none"><li>● Tree blocks</li><li>● Provide items from nature (twigs, leaves, rocks, feathers).</li><li>● Build a giant bird's nest.</li><li>● Wood birdhouses</li><li>● Birds (Beanie babies)</li><li>● Attach bird images to unit blocks with the bird's name on one side.</li><li>● Binoculars (make from paper towel rolls)</li><li>● Bird Puppets</li></ul>  

## Dramatic Play

### Generate play props and themes with children:

**Create a bird habitat.** Explore the different types of birds nest and where they are built (tree branches, grassland, ground, bushes and shrubs, holes in trees or buildings) and the different types of materials used (twigs, yarn, ribbon, grass, stones, mud)



Pretend you are a bird. What type of nest will you build? What materials will you use?

**Act Out:** Are you my Mother by PD. Eastman

## The Arts

### Group and Individual Projects:

- Create bird themed scenery for dramatic play (a tree, sky, a pond)
- Make binoculars
- Make bird puppets
- Feather art
- Art for a class book on birds
- Loose parts: create a bird
- Sculpt bird with clay
- Bird observational drawing.



**Watercolor birds:** Encourage children to choose a bird they would like to draw.

**Step 1:** sketch out the bird. This can take multiple tries.

**Step 2:** The teacher goes over the lines with a sharpie pen.

**Step 3:** child watercolors the bird.

**Step 4:** Label and write a description or story.



## Sensory

**Sensory Table-** add birdseed, birdhouse, toy nests, tiny birds, pipe cleaner worms, eggs, etc.



## Mathematical Thinking

**Places Scene:** a bird scene, dice, and props: toy birds, gems, and sticks or other loose parts.

### To Play:

- Roll the dice (dot or numeral)
- Take that number of items and add it to your scene.
- Repeat.

### Extension:

Ask the child to tell you the story of their scene. Write in down. Create a display with the photo and the story.



**Click here for a selection of [Bird Places Scene](#)**

### Make Comparisons:

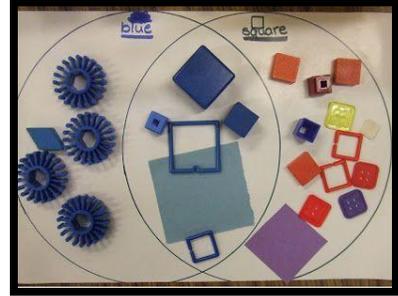
What birds are similar, what birds are different? **You can compare** color, wingspan, beak shape and size, claws, nest, food, egg color, and size where birds live.

### Sort Birds:

- Birds that build a nest in trees and birds that build a nest on the ground.
- Birds that can fly and birds that can't fly.
- Birds that have a big beak and birds that have a small beak.
- Birds that live near cities and birds that live near water.

Use a **Venn Diagram** to make comparisons. You can use two overlapping hula hoops, paper circles, or draw two circles on a piece of paper. Pick two characteristics, for example, color (brown) and size (small). All the brown birds can go on the left, and all the small birds can go on the right. The birds that are both brown and small go in the middle.

**Example with color and shapes.** The items on the left side are all blue, the items on the right are not blue, and the items in the middle are both-square and blue.



**Association between number and quantity:** Numeral cards, bird counters, and a tray with birdseed.

Flip the number card, choose that amount of birds (or eggs), then write the number in the birdseed.

**Extension:** record your answer on paper.

**Modifications:** use dot cards instead of numeral cards. Use dice (dot or numeral)

**Measure** the length of assorted feathers.

**Sort** feathers by size, color, or pattern.

**Count** and **sort** birds by their attributes (size, color, habitat)

Play [Bird Bingo](#)

[Cowbird Vitamin](#)

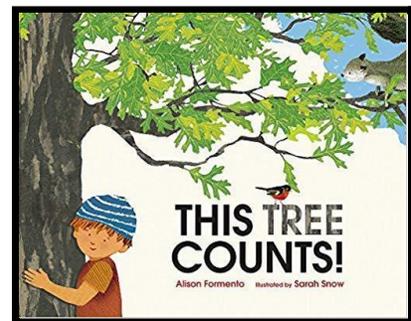


**Literacy Connection:**

[This Tree Counts](#) by Alison Formento and Sarah Snow

**Who makes their home in this oak tree?**

(1 owl, 2 spiders, 3 squirrels, 4 robins, 5 caterpillars, 6 ants, 9 ladybugs & 10 earthworms)



**Resource:**

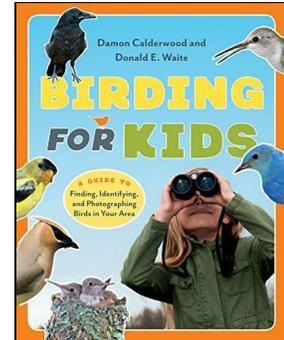
Retell the story using clipart images

Science,  
Technology &  
Engineering

**Make a bird feeder to hang on a tree near the classroom or on the playground.**

**Orange Suet Feeder:** Take an orange - cut it in half - scoop out the inside. Attach twine or jute (I used a wooden skewer to poke a hole and push the jute through).

From: [the garden-roof coop: DIY Suet Feeders](#)



**Create a bird watching station:** journal, pencil, binoculars, camera, and bird book.

- Record the birds that feed. Compare their characteristics; size, color, beak etc.
- Small group observation with binoculars.
- Bird observational drawing.



**Observe** nests in trees near school. Ask children what they see and think. Make observational drawings.

Watch a [Robin Building a Nest](#) and a [Red-wing Black Bird Building a Nest](#)

Compare the nest building between the blackbird and the robin.

What was the same? What was different?

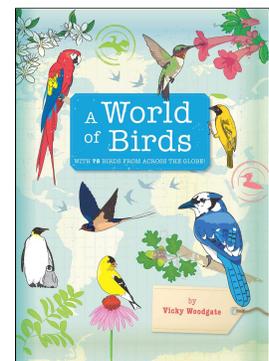
Compare one of the smallest bird nests, a [Hummingbird](#) nest, with one of the largest, a [Bald Eagle](#) nest

Leave nest building materials out for birds to gather such as small leaves, pine needles, feathers, tiny twigs, flat seed pods & yarn

**Literacy Connection:**

- [Bird Builds a Nest](#) by Martin Jenkins and Richard Jones
- Birding for Kids by Damon Calderwood and Donald E. Waite
- A World of Birds by Vicky Woodgate
- Magnificent Birds by Narisa Togo

**Resources:** [Madison Audubon -let's Build-a Nest](#)

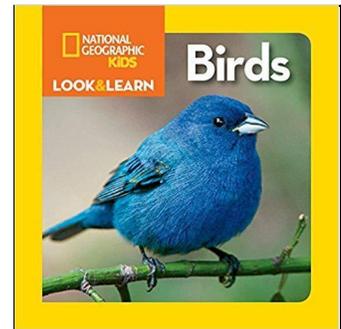


Library/  
Read Aloud

**Books:**

**Non-Fiction:**

- Where Do Birds Live by Betsy Chesen
- Birds (look and Learn) by National Geographic Kids
- Birds of Central America by
- A Nest is Noisy by Dianna Hutts Ashton
- An Egg is Quiet Dianna Hutts Ashton
- Cardinals (backyard birds) by Lisa J. Amstutz (also, blue jays, robins, hummingbirds, mourning doves, American crows, house sparrows, and goldfinches)
- Birds, Nests, and Eggs (Take Along Guides) by Mel Boring
- Bird Builds a Nest by Kevin Jenkins
- Feathers Not Just For Flying by Sarah S. Brannen
- Beaks by Sneed B. Collard III
- Olivia's Birds Saving the Gulf by Olivia Boulter

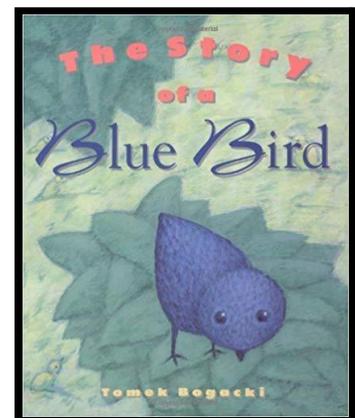
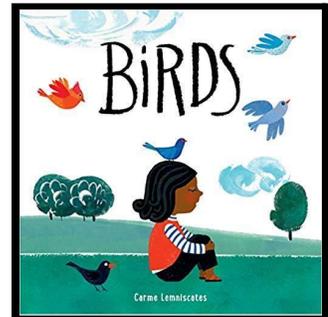


**Interview with Olivia Boulter:** [Jump Into A Book: Olivia's Birds: Saving the Gulf](#)



**Fiction:**

- Feathers for Lunch by Lois Ehlert
- Birds by Kevin Henkes
- Hooray For Birds by Lucy Cousins
- Little Green by Keith Baker
- The Story of a Blue Bird by Tomek Bogacki  
[Mama Built a Little Nest](#) by Jennifer Ward and Steve Jenkins
- [Birds](#) by Carme Lemniscates
- The story of a Blue Bird by Tomek Bogacki
- Ruby's Birds by Mya Thomspson
- [The Subway Sparrow](#) by Leyla Torres
- Every Little Thing by Cedella Marley
- Owl Babies by Martin Waddell



## Balanced Literacy

### Key Vocabulary

#### What makes a bird a bird?

- Warm blooded, backbone, a beak or bill, feathers, plumage, flight, wings

#### Habitats and Nest

- Forest, Rainforest, Savannah, Meadow, Arctic

#### The Life Cycle of a Bird

- Egg, Hatchling, Fledgling, Mature/Adult Bird

#### [Bird Around the World Vocabulary](#)

### Oral language and Concept Development

- Add a bird related survey or question to your **Morning Meeting** message.
- Use anchor charts to gain knowledge about birds
- Create opportunities for group project planning. Encourage children to share ideas, ask questions, and make comments.
- Review relevant bird vocabulary.
- Use [CROWD Strategies](#) during read alouds.
- Play [Bird Bingo](#)



### Fine Motor, Drawing, and Writing

Set up the writing area to support and extend the bird investigation.

Add bird books, artifacts, and provocations.

**Prompt:** "If you were a bird, where would you fly?"

**Vocabulary:** migrate, habitat, wingspan, waterproof, beak, bill, claw, talon

**Bird word cards:** letter tiles to build words

**Clipboards and paper:** bird drawing and labeling

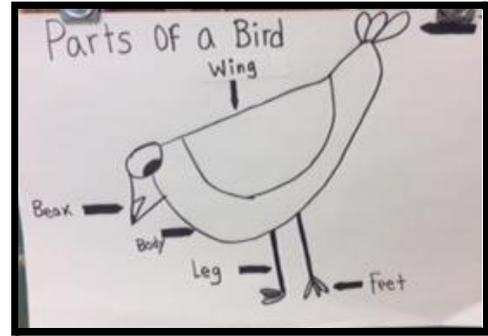
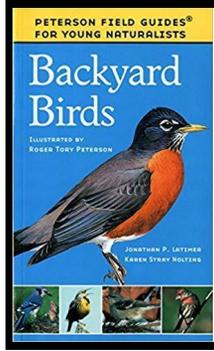
**Egg Scoop Fine Motor Game:** Child scoops the number of eggs that correspond with the printed numeral.



**Expressive and  
Written  
Language**

Start by learning about backyard birds. These are the bird's children see and hear in their daily lives.

- American Robin
- Chickadee
- Bluejay
- Wren
- Sparrow
- Crow
- Bluebird
- Pidgeon
- Owl
- Wild turkey



Use a template and loose parts to create a bird. Tell the story of your bird.



Mi parajito está triste porque su mamá ya no lo lleva más a la escuela.  
My little bird is sad because her mother does not take him anymore to school.



My bird is very cute and fancy. He is ready to go to a birthday party.

**Phonological  
and Phonemic  
Awareness**

**Songs and Poems**

- Make song and poem charts and engage in choral reading.

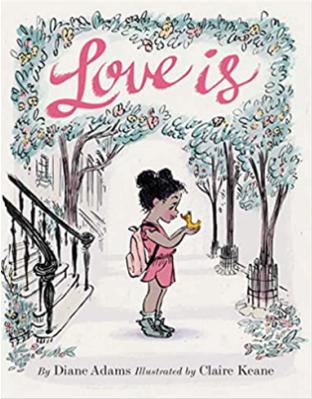
Song [Little Bird, Little Bird](#) by Elizabeth Mitchell

**Add Sound Sorting Baskets:**

- Include bird related props with different initial sounds (robin, nest, chickadee, tree, egg, worm etc.)

**Extensions:**

- Match initial sounds with corresponding letters and words.

<p><b>SEL</b></p>	<p><b>Caring for yourself and others</b></p> <p><b>Literacy Connection:</b></p> <ul style="list-style-type: none"> <li>• Love is by Diane Adams and Claire Keane</li> </ul>  <p><i>By Diane Adams Illustrated by Claire Keane</i></p>
<p><b>Differentiation/ Modifications</b></p>	<p><b>Mathematics:</b> Use bird figurines or pictures for small number counting and simple sorting by different characteristics (color, size, etc.)</p> <p><b>Places Scene:</b> Provide fewer props. Use numeral dice, double dice, have children work as teams.</p> <p><b>Balanced Literacy:</b> Create vocabulary cards with names and pictures of well known birds with simple spelling (owl, robin, parrot, etc.)</p> <p><b>Phonemic Awareness:</b> Make connections between first letters in children’s names and first letters in bird names (<b>P</b>eter - <b>P</b>enguin; <b>O</b>livia - <b>O</b>strich)</p> <p>Make connections by offering bird names and other bird vocabulary words in different languages. (English: Owl; Spanish: Búho)</p>