Teacher’s Manual - Table of Contents

IMPORTANT! Some of the items listed in the table of contents are included in the manual you received in the mail, others are available online. The font color and the symbol next to each item indicate where each can be found:

- Indicates items included in the manual
- Indicates items available online

I. PROGRAM ESSENTIALS

- Welcome Letter
- Important Reminders
- Timeline and Requirements
- Program Guidelines… p. 3
- List of birds that breed in your area and winter in your partner class’ country…. p. 11
- Color photos of birds on the above list

Required forms:
- About My Bird (English version)….
- Sobre Mi Ave (Spanish version) ….
  Students use the above form to organize their research on a migratory bird species from the list on p.11.
- Map of the Americas….. p. 15
  Students use this map to show the breeding and wintering ranges of their migratory bird.
- Tell Your Partner Class about Yourselves…. p. 17
  Complete this form with your class to send to partner class.
- Pre-evaluation survey….. p. 19
  For grades 3-8. Have students complete this before introducing any program content. Due Oct 1.
- Post-evaluation survey…. p. 21
  For grades 3-8. Have students complete this after completing the materials to send to your partner class. Due Dec 15.
- Program evaluation form…. p. 23
  Complete and submit at the end of the school year. Due June 30.

Optional form:
- “About Me/Sobre Mi”
- Spanish-English vocabulary list

II. BIRD BASICS

- Our Local Resident Birds…..p. 33
A one-page handout featuring the names and photos of 20 common birds that live in and around Washington, DC all year round.

**Why Birds are Important:**
- Teacher Background: Why Birds are Important…. p. 35
- If There Were No Birds (Grades 1-7)…. p. 37
  
  By imagining what the world would be like without birds, students will identify ways that birds are beneficial.

**Physical Adaptations and Anatomy:**
- Teacher Background: What Makes a Bird a Bird?.... p. 41
- Prime Parts (Grades 2-6)…. p. 45
  
  Simple demonstrations that highlight the unique features of birds
- Pass the Part (Grades 2-6)…. p. 47
  
  A relay game that reinforces knowledge of unique bird characteristics.
- Diagram of the Internal Organs of a Bird
- Fill the Bill (Grades 2-6)
  
  A hands-on activity demonstrating how different bird beaks are adaptations for feeding on different kinds of food.
- How do they do it? (Grades 6-8)
  
  A hands-on activity demonstrating how different bird beaks are adaptations for feeding on different kinds of food.
- Feet Are Neat (Grades 1-3)
  
  Students mold bird feet out of clay and learn how different types of feet help birds survive in their particular habitat.
- How Do You Measure Up? (Grades 1-6)
  
  Students make comparisons between human traits and abilities and those of birds.

**Physics of Flight:**
- Birds and Bernoulli (Grades 2-8)
  
  By making models and observing the effects of air pressure, students learn how the shape of a bird’s wing enables it to fly.
- Flight School (Grades 7-12)
  
  Through simple demonstrations, students see how the shape of birds’ wings and feathers relates to flight.

**Behavioral Adaptations:**
- Dawn Chorus (Grades 1-6)
  
  By imitating sounds that different birds make, students learn that each bird species has its own unique song and calls which are a means of communication for the birds and a means for people to identify them by ear.
- Bird Memory Phrases
  
  A list of select birds and the mnemonic phrases commonly used by people to remember the unique song of each.
- Birds in the Nest (Grades 3-6)
  
  A game that simulates the demanding task parent birds have of feeding a nestful of young birds.
- Bird Behavior Bingo (Grades 1-4)
  
  Gets kids outside observing birds and learning about different bird behaviors.
- The Master Moocher (Grades 1-5)
Through a puppet play, students learn about nest parasitism by the Brown-headed Cowbird.

- What About Those Cowbirds? (Grades 1-5)
  Students read a biased article about cowbirds and discuss what is fact versus opinion.
- Brown-headed Cowbirds: From Buffalo Birds to Modern Scourge
  Fact sheet for teacher background.
- Bird Behavior Scavenger Hunt
  Gets kids outside observing birds and learning about different bird behaviors.

Bird Identification:
- Bird Identification 101 (Grades 2-7)… p. 49
  Students describe some of the physical characteristics of birds, identify birds based on these descriptions, and contrast different kinds of birds.
- Bird Photo Card Activities (Grades 3-8)… p. 59
  Classroom activities for learning about bird identification.

III. BIRD MIGRATION

Background Information and Resources for Teachers:
- Finding the Way: Exploring the Wonder of Migration… p. 63
- Fact sheets:
  - Neotropical Migratory Bird Basics… p. 67
  - Have Wings, Will Travel: Avian Adaptations for Migration… p. 73
  - Travel Alert for Migratory Birds: Stopover Sites in Decline… p. 75
  - The Baltimore Oriole… p. 77
- Birds Over Troubled Forests (booklet)… in binder pocket
- Winged Ambassadors (booklet)… in binder pocket
  Color by number illustrations and range maps of 30 migratory bird species.
- Full color migratory bird fact cards (photos, range maps, facts for 30 species)—A sample is included in your manual on page 78a
- Profiles of 26 migratory bird species
- Printable outline drawings of select migratory birds

Lesson Plans and Activities:
- Ideas for Exploring the World of Migratory Birds… p. 79
- Should I stay or should I go? Resident versus migratory birds… p. 80a
  Based on diet information, students predict which bird species migrate
- Flute’s Journey (Grades 1-5)… p. 81
  Students use information in the book “Flute’s Journey” to create a concept map, compare and contrast Maryland and Costa Rica, and identify actions children can take to help migratory birds.
- Feathered Travelers: Neotropical Migratory Birds of the Americas (Grades 3-5)… p. 87
  Using a coloring book with text in Spanish and English (included with your manual), students learn what kinds of birds migrate and why, about important habitat types birds depend on, and about some of the places birds go in their travels across the Americas.
- Chip the Champ (Grades 3-7)… p. 91
  Students use math to solve problems presented in a script about hummingbirds.
- Geography is for the Birds (Grades 4-8)… p. 99
  With the help of an atlas, students read descriptions of hypothetical migration routes and plot them on a map worksheet.
- Migration Adventures (Grades 1-5)… p. 107
Students plot migration routes on a map and create a puppet play that dramatizes the experiences of migrating birds.

- Mapping Raptor Migration (Grades 5-12)…. p. 115
  Students map the migration of a Swainson’s hawk using latitude and longitude coordinates.

- Tracking Peregrine Falcons from Space (Grades 3-7)…. p. 121
  Article for students about the use of satellite transmitters to track migrating birds.

  - How do Birds Find Their Way? (Grades 1-5)
    Learn about migration using the book “How do Birds Migrate” by Roma Gans

  - Avian Olympics (Grades 6-8)
    Students use math to solve problems relating to migration and birds’ energy requirements.

  - Southward Bound (Grades 1-5)
    A play script written by Michele Cleland of Virginia Beach Friends School. Available in both English and Spanish.

  - From a Bird’s Eye View: An Interdisciplinary Approach to Migration (Grades 3-8)
    A project that includes researching a species, creating a range map and paper-mache model, and writing a fact-based fictional story.

IV.  BIRD CONSERVATION

Background Information for Teachers:

- When Songbirds Sing the Blues…. p. 125
- Fact Sheets:
  Why Migratory Birds are Crazy for Coffee…. p. 131
  FAQ’s about Bird-Friendly Coffee…. p. 133
  When it Comes to Pesticides, Birds are Sitting Ducks…. p. 135
- Planting Habitat for Birds in Trouble….p. 139

Classroom Lesson Plans and Activities:

- Save our Songbirds (Grades 1-6)…. p. 141
  Students read and analyze an environmental action story about a fourth grade class that created habitat for birds on their school grounds.

- I’m For the Bird’s Pledge Card (Grades 1-5)…. p. 147
  Students illustrate a way they can pledge to help birds.

- Soaring into Action (Grades 1-5)
  Students plan and carry out an action project to help birds.

- Conservation Dilemmas: What Would You Do? (Grades 4-8)
  Students learn about the characteristics of birds of prey, and analyze and propose solutions to problems involving conflicts between humans and wildlife.

- Cell Towers and Songbirds (Grades 5-8)
  Students role-play different perspectives in a debate over communication tower restrictions designed to protect migratory birds.

- Home is Where the Forest Is (Grades 3-8)
  Students define the concepts of habitat and carrying capacity, and identify some of the factors that regulate the number of birds an area can support.

- Ranger Rick on the importance of shade grown coffee. (Grades 2-5)

V.  INTRODUCTION TO YOUR PARTNER CLASS’ COUNTRY

Contents of this section of the printed manual differ according to the country. Refer to the contents list at the start of this section to see what is provided.
Powerpoint presentations on all Latin American countries where Bridging the Americas partner classes are located

Online children’s story books about life in Latin America. (Grades 2-7)

**SUPPLEMENTARY MATERIALS**

- International Migratory Bird Day magazines (Grades 3-7):
  - *Collisions: Clearing the Way for Birds*
  - *Exploring Habitats: Special Places for Birds*
  - *Birds in a Changing Climate*
  - *Tundra to Tropics*
  - *Exploring the Boreal Forest*
  - *Birds and Culture*
- Jr. Birder Program magazine
- Why Birds Matter infographic
- International Migratory Bird Day 2014 catalog

**Posters:**

- Bird Migration in the Americas (National Geographic)
- Bird-Friendly Coffee