Classroom Guide – A Warbler's Journey written by Scott Weidensaul and illustrated by Nancy Lane Guide written by HEART (Humane Education Advocates Reaching Teachers) and provided courtesy of The Gryphon Press TheGryphonPress.com

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Story Summary: In *A Warbler's Journey,* readers follow a tiny yellow warbler on an epic voyage. She flies thousands of miles from her winter rainforest home in Nicaragua, across the Gulf of Mexico, to reach her breeding ground home in a northern Canadian park. This story details the incredible endurance and resourcefulness needed for migration, as well as the threats she faces along the way, including climate change and habitat destruction. The amazing warbler encounters three children and their families along the difficult path, demonstrating ways in which people can support migrating birds and the health of the environment.

Note: Some of the activities in the guide are developed with the objective of fostering empathy, compassion, and perspective-taking by asking students to consider a situation from the point of view of an animal, but we recognize that those activities have their limitations, and we want to be cautious of anthropomorphism. We encourage educators to let students know that they are only imagining what wildlife are thinking or feeling, because our knowledge is based on our own personal experiences as human beings. However, we can learn a lot by taking a moment to put ourselves in the paws or wings of another species. We are discovering more about the inner worlds of other species all the time because of diligent animal behaviorists who have dedicated themselves to observing animals in their natural habitats.

Vocabulary and Translation:

English: Ancestors Council Dangerous Darted Dawn

Elected Chief Fiery Fluttered Generations Government Harvest Journey Lush Migrating Ocean Official Peaceful Rainforest Roost Snug Swamp Thousands Tropical Tundra Twitchy Warble Yipped

Spanish to English:

Abuelita - Grandma Abuelito - Grandpa Finca - Farm Niña - Girl Reinita amarilla - Yellow warbler

Dene to English:

įyesaze – Little bird

Lesson 1: Reading and Understanding A Warbler's Journey

Grades: 1-3

Vocabulary:

• See Vocabulary and Translation list on pages 1-2.

Objectives:

Students will be able to...

- listen to or read A Warbler's Journey.
- answer recall and higher-order thinking questions about A Warbler's Journey.
- describe a yellow warbler's migration journey from Nicaragua to Canada.
- identify at least two challenges that a bird may experience during migration.

USA Common Core State Standards (CCSS) CCSS: CCSS.ELA-LITERACY.RL.1.2

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

CCSS.ELA-LITERACY.RL.1.3

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

CCSS.ELA-LITERACY.RL.2.3

Describe how characters in a story respond to major events and challenges.

CCSS.ELA-LITERACY.RL.2.7

Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

CCSS.ELA-LITERACY.SL.1.2

Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

CCSS.ELA-LITERACY.RL.3.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Collaborative for Academic, Social, and Emotional Learning (CASEL) CASEL SEL Competencies: Social awareness, Responsible decision-making

Humane Education Coalition - Core Components of Humane Education (CCHE) <u>CCHE:</u> 1: A, B, C, D, F, G, H, J; 2: A; 3: A, B, E, F; 5: A, B, C

Materials Needed:

- At least one copy of *A Warbler's Journey*
- Warbler Journey Cards (see the Appendix)
- Board or poster paper (consider reusing cardboard)

Lesson Procedure

Opening

- 1. Explain to students that they are going on an exciting journey today. Tell them that they are reading the book, *A Warbler's Journey* and they will make a list of the places the main character in the story (a yellow warbler) goes and who she meets along the way.
- 2. Read the story or allow students to read sections aloud to the group. Make sure all students are also able to view the illustrations on each page.
- 3. Ask students to help construct a list of who the warbler meets and where she travels on her journey. Write that list on the board or on chart paper.

Body

Set up five "stations" by placing the *Warbler Journey* Cards throughout the room. Divide students into small groups and allow them to cycle through the five stations. Give each group a few minutes at each station to read the card and discuss the questions. Groups can also optionally record their answers.

Activity

To allow students to further reflect on the story, ask them to choose one of the following writing prompts to respond to:

• Choose one of the children the warbler met along her journey. Write down

what you think the yellow warbler might say to or ask that child.

• Given the "bird's eye view" that the little yellow bird had as she flew over so many places, what advice do you think she might offer to humans?

Closing

- 1. Gather students and close the lesson with a group discussion. Ask them the following:
 - When the yellow bird flew over the water, it would have been tempting to give up. What is something that you have done that you wanted to give up on but didn't?
 - What advice would you give to someone going through something difficult, to encourage them to not give up?
- 2. Ask students to share their answers with the whole group or simply turn to a peer to discuss. Encourage them to remember this advice when life gets challenging for them.

Extension

• Have students write either a poem or a short paragraph to encourage people to think about a warbler's long migration. Invite students to write from the point of view of the warbler using the sentence starter, "If you knew I just flew 4,000 miles..." or to write from their own perspective using the sentence starter, "If you knew she just flew 4,000 miles..." To enhance this activity, students can draw a picture or create a collage to accompany their writing.

Lesson 2: The People Along the Journey

Grades: 2 - 3

Vocabulary:

- Canopy
- Country
- Culture
- Customs
- Erosion
- Expert
- Fair trade
- Harvest
- Organic
- Pesticides
- Shade-grown
- Sustainable
- Synthetic fertilizers
- Traditions

Objectives:

Students will be able to...

- define culture.
- name traditions that are important to themselves and others.
- describe three distinct locations in the book, A Warbler's Journey.
- compare and contrast specific aspects of cultural diversity.
- identify three specific ways that people support migratory birds.
- describe three specific ways that people can support individuals who are similar to the characters in the book, A Warbler's Journey.

USA Common Core State Standards (CCSS) CCSS.ELA-LITERACY.RL.2.7

Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

CCSS.ELA-LITERACY.W.2.8

Recall information from experiences or gather information from provided sources to answer a question.

CCSS.ELA-LITERACY.SL.2.1

Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.

CCSS.ELA-LITERACY.SL.2.2

Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

CCSS.ELA-LITERACY.SL.2.3

Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

CCSS.ELA-LITERACY.RL.3.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

CCSS.ELA-LITERACY.RL.3.6

Distinguish their own point of view from that of the narrator or those of the characters.

Collaborative for Academic, Social, and Emotional Learning (CASEL) CASEL SEL Competencies: Social awareness, Responsible decision-making

Humane Education Coalition - Core Components of Humane Education (CCHE) CCHE: 1: A, B, C, D, E, F, G, H; 2: A, B, C, G, H, I; 3: A, B, C, D, E, F; 4: A, B, D; 5: A, B, C

Materials Needed:

- Families from A Warbler's Journey Worksheet (see the Appendix)
- Family Site Cards (see the Appendix)
- Family Readings 1, 2, & 3 (1/student, see copies to print out in the Appendix)

Lesson Procedure

<u>Day 1</u>

Opening

Gather students in a circle and facilitate a discussion about culture by asking students the following questions:

- Have you heard the word "culture" before?
- *Do you know what culture means?* (Possible answer: The habits, beliefs, and traditions of a group of people.)
- Can you give examples of something that would be part of someone's culture? (Possible answers include language, food, traditions, music, dance, art, clothing, beliefs, customs.)
- Does anyone want to share something about their own culture? (Remind students that someone's culture is very meaningful to them, so it is important to listen and be respectful whenever someone is sharing, and not to laugh at what anyone shares.)
- How did it feel to share a part of your culture with the class?
- How did it feel to learn about a part of someone else's culture?

Note: As part of this discussion, it will be helpful to provide some explanations and examples of some of these aspects of culture (e.g., traditions can include a specific way a holiday is celebrated such as: fasting during Ramadan, singing carols on Christmas, lighting candles for Diwali, or having a picnic on Juneteenth; a custom can be a way that a group of people greets each other such as a handshake, a bow, or a kiss on the cheek). It is also important to let students know that every person is an individual and not everyone in a certain group expresses the cultural practices of the group they are a part of in the same way (they may have a different belief, speak a different language, celebrate different holidays, or not celebrate any holidays at all). Explain that cultures can change, but it is important to understand and appreciate the beauty in the different ways people express themselves and acknowledge the origins of different types of art, food, and ways of living.

Body

1. Explain that in *A Warbler's Journey*, the warbler lives in and passes through many places, and she encounters different people on her journey. Explain that the

families she meets live in different countries, with their own cultures, and they each do something to support the warbler on her journey.

- 2. Let students know that they will be going on another journey to spend time getting to know more about each family. Divide the students into groups and have them cycle through the five "sites" created around the classroom by placing the appropriate *Family Site* Cards in different areas: *Family Members, Country, Language, Ecosystem Support,* and *Special Fact.* Give each student (or 1 per group) a *Families from* A Warbler's Journey *Worksheet.* Ask students to work together to complete their worksheet with information about each family.
- 3. After each group has visited each site and completed their worksheet, bring students together to share their responses. Facilitate a discussion with students about the importance of appreciating cultures other than their own; recognizing and valuing the lives of all people and the countries where they live, the diverse languages they speak, and the customs and traditions that are meaningful to them; valuing the unique ways that people are connected to animals and the environment; and understanding the special individuality of every person.

<u>Day 2:</u>

Body (Continued)

- 4. Have students review their *Families from* A Warbler's Journey *Worksheet* from the previous day.
- 5. Remind students that each family did something specific to support the warbler, and now they are going to think about ways that people can support other people as well. Pass out the following three readings to each student and/or project them on a screen. Read each text aloud, one at a time, or have student volunteers take turns reading each text aloud. Let students know they are going to play a game after each reading, so they need to pay attention.
- 6. Break students up into groups of three and have one person in each group designate themselves as either: *rainforest, garden*, or *park*. After each reading, there are three follow-up questions. Call out (in random order) *rainforest, garden*, or *park* prior to asking each question, and the student in each group who represents that designation will discuss the question with their group, step forward, and answer

the question. (Example: Tyisha, Jose, and Pat are in a group. Tyisha is "rainforest," Jose is "park," and Pat is "garden." After the first reading, call out "garden" and ask the first question. The group will discuss, and then Pat will share their response. Then, call out "rainforest," ask the question, the group will discuss, and Tyisha will share their response. Finally, call out "park," ask the question, the group will discuss, and Jose will share their response. Repeat this after Readings 2 and 3 (calling out *rainforest, garden*, and *park* in a random order each time).

• Reading 1: The Family from Nicaragua

- o The family in Nicaragua grew coffee trees on their land and used methods of farming called "organic" and "shade-grown." Some farmers spray their trees with harmful chemicals called pesticides that kill insects to prevent them from eating plants. Birds might become sick if they eat insects on trees sprayed with pesticides. Since the family in Nicaragua did not use any pesticides (or any synthetic fertilizers) on their land, their farm was organic, so the insects on their property were healthy and the birds had plenty of food to survive. Shade-grown is a traditional way of growing coffee trees under the canopy of the forest. This is very different from the sun-grown method, through which the entire forest is cleared away. The sun-grown method is often used by large companies because they can plant more coffee trees closer together, making it easier and faster for them to water, manage, and harvest the coffee beans with machines than by using the shade-grown method. However, over time, the sun-grown method damages the land, takes many nutrients out of the soil, and causes erosion. The shade-grown method protects bird habitat and the health of the ecosystem.
- Sometimes farmers work on coffee farms owned by large companies that do not pay their workers fairly for the work they do. The company owners want to make more money for themselves. There are organizations working to help improve labor conditions for farmers, and to support "organic, shade-grown" practices that are better for animals and the environment. Some coffee has a "fair-trade, organic, shade-grown" label, which means that the coffee farmers are paid fairly for their work, and the coffee was grown using environmentally friendly farming methods. "Fairtrade, organic, shade-grown" coffee is usually more expensive than typical coffee because the customer is paying a higher price so that more

money is directed to the farmworkers and toward sustainable farming practices. "Fair-trade, organic, shade-grown" coffee is not sold at as many places as typical coffee, but as more people ask for and buy "fairtrade, organic, shade-grown" coffee, it will become more affordable and easier to find.

(**Optional:** Show students a package [or image] of conventional coffee and a package [or image] of organic, shade-grown, fair-trade coffee.)

• Questions:

- > What does "organic" and "shade-grown" farming mean?
- > Why do you think it was important to the family in Nicaragua to use "organic" and "shade-grown" farming methods?
- How do you think farmworkers should be treated for the work they do?

• Reading 2: The Family from the United States

- The grandma from the United States was an expert in gardening. She had a lot of space in her backyard and, instead of having a grass lawn, she created a beautiful area filled with flowers, shrubs, and a pond. She taught her grandson how to garden with her and to grow the plants that would be most helpful to the wildlife in her community. She grew plants to support pollinators (animals who spread pollen to help more plants grow) such as bees and butterflies. Her garden was a peaceful place for people, and it also provided food, water, shelter, and an area to rest for birds and other animals.
- Many people would like to have a flower or vegetable garden, but they may not know how to get started, or they may not have much space. Most people who live in big cities do not have large backyards, or they may live in an apartment building with no land at all. There are some environmental organizations that help teach people how to garden, provide them with the needed supplies, and even give away seeds. Even if someone does not have a yard, there are ways to grow flowers, herbs, or plants in small pots or window boxes. Also, in some neighborhoods, there are community gardens where people share land and have a nice place to enjoy nature, support wildlife, and grow healthy fruits and vegetables.

• Questions:

- How would you describe the grandma's garden?
- > Why do you think the grandma and her grandson grew the garden?
- Have you ever had a garden or plants? If so, how did you feel about your garden or the plants you took care of? If not, would you like to have plants or a garden?

(**Optional:** Show images of community gardens and growing herbs, vegetables, or flowers in pots or window boxes.)

Reading 3: The Family from the First Nations Indigenous Territory in Canada

- The family from the First Nations Indigenous Territory in Canada supported their elected chief and the ministries of their government in signing an official document called a proclamation to protect the land where they lived for generations to come. The proclamation says that people must live harmoniously on the land and not pollute the ground, air, or water. It is a way to make sure that all the people and animals, including the birds, who live there have a healthy home. The girl and her family celebrated when the leaders of their tribe signed this document into law.
- This action not only protected the environment, but also helped to preserve the Indigenous Peoples' culture and their way of life. With their land officially protected, they would be able to continue their traditional way of life on the land and pass on their cultural practices to their children for many years to come.

Questions:

- How do you feel when you see litter on the ground or lakes that are polluted?
- > What did the elected chief and ministries do to protect the land for future generations?
- Why do you think protecting the land is important to preserving the First Nations Indigenous culture?
- 7. Ask students if they have any final thoughts to share about any of the readings.

Activity

- 1. Explain to students that now that they have had a chance to get to know all the people in the story a little better, they are going to do an art project.
- 2. Ask students to choose one of the children from the story to feature in a three-part "story strip" (similar to a comic strip) and provide the following instructions.
 - Square 1: Introduce the child and share one important detail about the child.
 - Square 2 Describe how the child and the child's family helped wildlife and birds in particular.
 - Square 3 Share a final interesting fact about the child.
 - Write a one-to-three-sentence summary of your "story strip."
- 3. If students are comfortable, post their artwork on a bulletin board or on the wall so that they can learn from and appreciate each other's work.

Closing

Ask students to respond to one of the following questions by either writing a journal entry, talking with a partner, or discussing in a small group, and then sharing with the whole class.

- What are some examples of culture?
- How can we respect cultures that are different from our own?
- What are some ways that people can support wildlife?

Extension

 Provide students with an opportunity to talk with a family member or close friend about their family's culture. Let students know that they can share any part of their identity that is important to them. Encourage students to create a poster, slideshow, or any type of art piece to represent their culture. Provide an opportunity for students to take turns showing their work and sharing their culture. To enhance the activity, let the parents or guardians of your students know that they, or another family member, are invited to come to class to talk about their culture with their child.

- Create a humane backyard at your school to support native birds and pollinators. To learn more about how to create a humane backyard, visit https://www.humanesociety.org/humane-backyard. If growing a humane backyard at your school is not an option, consider teaching your students about the benefits of a humane backyard and provide them with reused materials to create a humane backyard diorama.
- Arrange to take your students on a field trip to a nearby community garden. Have someone involved in the garden provide your students with a tour to show them all the aspects of the garden and the different plants being grown.

Lesson 3: Migration Investigation

Grades: 1 - 3

Vocabulary:

- Migration
- Threat

Objectives:

Students will be able to...

- explain that migration is motivated by survival and the need for access to resources.
- identify at least 2 different kinds of birds during observation outside.
- describe at least 2 interesting facts about yellow warblers.

USA Common Core State Standards (CCSS) CCSS.ELA-LITERACY.SL.1.2

Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

CCSS.ELA-LITERACY.W.2.8

Recall information from experiences or gather information from provided sources to answer a question.

CCSS.ELA-LITERACY.RL.2.7

Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

CCSS.ELA-LITERACY.W.2.1

Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., *because*, *and*, *also*) to connect opinion and reasons, and provide a concluding statement or section.

CCSS.ELA-LITERACY.W.2.8

Recall information from experiences or gather information from provided sources to answer a question.

CCSS.ELA-LITERACY.W.3.3

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

Collaborative for Academic, Social, and Emotional Learning (CASEL) CASEL SEL Competencies: Social awareness, Responsible decision-making

Humane Education Coalition - Core Components of Humane Education (CCHE) <u>CCHE:</u> 1: B, C, D, F, G, H, J; 2: A, C; 3: A, C, E, F; 4: B, F; 5: A, B, C

Next Generation Science Standards (NGSS)

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.

NGSS: LS1.D: Information Processing

Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs.

NGSS: 2-LS4-1 Biological Evolution: Unity and Diversity

Make observations of plants and animals to compare the diversity of life in different habitats.

NGSS: 3-LS4-3 Biological Evolution: Unity and Diversity

Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

Materials Needed:

- Fascinating Facts About Yellow Warblers (see the Appendix)
- Clipboards and paper or notebooks for outside observations and journals

Lesson Procedure

Opening

1. Ask students if they have ever been on a long journey. If so, ask them to reflect on the following questions (**Note:** This can either be a journal writing activity or a

group discussion.):

- What was it like?
- How did you feel when you were on the journey?
- Were there any challenges?
- Did anything exciting happen?
- Compare and contrast your journey to the warbler's journey.
- 2. Remind students about the warbler's journey and project a map to trace her migration path (or simply show them the map at the beginning of the book). Ask a student volunteer to help locate where your school is on the map to see if the yellow warbler migrates (or lives) near your area or to identify how far your location is from the warbler's path. (**Note:** The map at the beginning of the book also shows regions where yellow warblers migrate, breed, and spend their winter, collectively covering almost the entirety of North America. Virtually every young person in North America lives where yellow warblers migrate, even if they do not live near the migratory path of the specific fictional yellow warbler from the book.)
- 3. Explain that birds like the yellow warbler migrate to survive. Ask students to brainstorm what birds need to survive and then explain that migration is usually driven by a bird's need to find food and other resources that may not be available all year long. They move back and forth between places that provide what they need at different times of the year.

Body

- Have the students gather in an open space in the classroom. Pass out one Fascinating Facts About Warblers fact to each student in the class. Invite students to move around the space while you play music. When the music stops, students will share their fact with one classmate who is nearest to them. Repeat three times. Have students share what they learned about warblers with the class.
- Explain that there are many ways to identify birds, and that one fun way is by identifying their songs. Allow students to play *Bird Song Hero** individually or in small groups. (This can also be used as a great homework or downtime assignment for students to prepare for this lesson.)
 *<u>https://academy.allaboutbirds.org/features/bird-song-hero/bird-song-hero-tutorial</u>

Activity

- 1. Bring students outside to find a spot where they can sit quietly and observe the birds in the area for 5 minutes. Ask them to write down their observations and draw what they see. Ask students to share what they learned from watching the birds.
- 2. Have students stay in their outdoor spot and write a "bird's journal entry" (journal writing from a bird's perspective) as they migrate. Ask students to answer the following questions:
 - What are you looking for?
 - What kinds of threats might you experience?

Note: Prior to going outside, make sure that every student has a pencil and a notebook or a clipboard with paper.

Closing

- 1. Invite students to reflect on their experience being outside and observing the birds. Ask students to respond to any of the following questions:
 - How did you feel when you were outside watching birds?
 - What did you see and hear by sitting still and observing for 5 minutes that you might not have noticed before?
- 2. Ask students to share one thing that they found really interesting from the lesson. Challenge the group to not repeat anything another student has said.

Extension

- Research which birds migrate to, from, or over your area. Here is a great resource with regional information: <u>https://www.birdwatchersdigest.com/bwdsite/learn/bird-identification-migration-resources.php</u>.
- Go on a nature walk as a class. Take pictures of the birds you see and try to identify them later and learn about the species. Students can use this resource, if needed, to support them in identifying the birds they see and in learning more about them: <u>https://www.birds.cornell.edu/k12/get-started/</u>.

- Using materials bound for trash or recycling, challenge students to create a puppet of the bird they wrote about in their journal. Allow them to read their journal entries with the help of the puppet.
- Make homemade window clings to protect birds from flying into buildings. You can use this video for instructions on how to make window clings: <u>https://vimeo.com/487266275</u>.

Lesson 4: Exploring the Rainforest

Grades: 1 - 3

Vocabulary:

- Clearcutting
- Climate change
- Ecosystem
- Fair trade
- Organic
- Pesticides
- Shade-grown

Objectives:

Students will be able to

- define the term *ecosystem*.
- explain what "web of life" means.
- identify at least 2 threats to migratory birds.
- describe at least 2 ways people can help migratory birds.

USA Common Core State Standards (CCSS)

CCSS.ELA-LITERACY.RL.1.7

Use illustrations and details in a story to describe its characters, setting, or events.

CCSS.ELA-LITERACY.W.1.1

Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.

CCSS.ELA-LITERACY.W.2.8

Recall information from experiences or gather information from provided sources to answer a question.

CCSS.ELA-LITERACY.SL.1.2

Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

CCSS.ELA-LITERACY.SL.1.5

Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.

Next Generation Science Standards (NGSS)

K-ESS3-3 Earth and Human Activity

Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

Collaborative for Academic, Social, and Emotional Learning (CASEL)

CASEL SEL Competencies: Social awareness, Responsible decision-making

Humane Education Coalition - Core Components of Humane Education (CCHE) <u>CCHE</u>: 1: A, C, E, F; 2: A, B, C, H; 3: A, B, C, E; 4: A, B, D; 5: A, B, C

Materials Needed:

- Copy of the book, A Warbler's Journey
- Map of Central America
- A Warbler's Journey: Web of Life Cards (see the Appendix)
- A Warbler's Journey: Web of Life Teacher's Guide
- Ball of yarn
- Child-safe scissors
- Ecosystem Threat and Protection Cards (see the Appendix)

Lesson Procedure

Opening

- 1. Invite students to sit in a circle if space allows. Explain that you are going to talk about how people, animals, and the environment are all connected by ecosystems.
- 2. Ask students to share what they know about ecosystems. Allow for students to respond. If needed, explain that an ecosystem is made up of all the living beings and nonliving things in an area. This includes all the plants, animals, and other living beings that make up the communities of life in an area.

3. Ask students what they think living beings need in their ecosystem to live. (Possible answers include water, soil, sunlight, food, and space.)

Body

- 1. Show students page 3 of the book, *A Warbler's Journey* (project on a screen if possible so everyone can easily see the page). Ask students if they remember where the story begins. (If needed, show students a map of Central America so that they can identify the starting location, which is in the country of Nicaragua.)
- 2. Let students know that they are going to recreate the warbler's ecosystem in Nicaragua. Reread pages 1 4 of *A Warbler's Journey* and ask students to look at the corresponding illustrations. While reading the story, ask students to touch their forehead every time they hear specific details about the warbler's ecosystem, including anyone or anything that is in the ecosystem such as water, air, sunlight, plants, or animals. When the students touch their forehead, ask them to share what they heard about the warbler's ecosystem. Write their observations on the board. (Ecosystem details include rainforest, snakes, bats, insects, howler monkeys, rainwater, caterpillars, sunshine, flowers, bugs, berries, roosters, people, coffee trees, butterflies, hummingbirds, parakeets, and forest.)

Activity

- 1. Have students sit or stand in a circle. Hold out the *Warbler's Journey Web of Life* Cards facedown. Ask each student to pick a card. (Each card should have a long piece of yarn threaded through it so that students can put the yarn loosely around their necks to "wear" their cards.) The image on the card is who or what they represent in the warbler's ecosystem.
- 2. The activity starts with the person representing the sun. Give that student the ball of yarn. Ask the students to name who in their ecosystem can receive energy from the sun. (Possible answers: trees, flowers.) Ask the students who represent a tree or a flower to raise their hands. Ask the student who represents the sun to hold on to one strand of the yarn and unravel the ball of yarn enough to pass the yarn ball to one of the students whose hand is raised. (Assist students as needed.)
- 3. Next, ask who can receive energy from the flower or tree. Discuss this with students and then have the students who can receive energy from the flower or tree raise their hands. The student who has the ball of yarn will hold on to a strand and unravel the ball of yarn to pass the yarn ball to the next student. (Continue to assist students as needed.)

- 4. Allow this process to continue until you reach a student representing a decomposer. (When you reach animals who do not have a predator, explain that when they go into the earth, they will give energy to the earthworms or beetles.) Then, bring the ball of yarn back to the sun. If there are still some students who are not part of the web, make another web including the students who are not in a web. Continue to make webs until every student is included. Some students will be part of multiple webs, demonstrating how some species are keystone species in an ecosystem because they are connected to so many others, but explain that each species is very important in creating a healthy ecosystem.
- 5. Explain that unfortunately there are external impacts that can hurt an ecosystem. These threats harm the people, animals, and plants who depend on the ecosystem. Hold the *Ecosystem Threat* Cards facedown and ask student volunteers to select one card at a time. Each time a card is selected, discuss how the threat might harm the balance of the ecosystem, and have the students represent this by letting go of the yarn to symbolize that they are no longer in the web and no longer in the ecosystem.

• Pesticides sprayed on the coffee trees

(Pesticides are like poison on the coffee trees, harming the insects who eat the trees and the animals who eat the insects, and they can make the coffee farmers who harvest the coffee sick as well. All the students holding onto the yarn connected to the coffee trees will have to drop their yarn.)

• Clearcutting of the rainforest

(Trees and flowers will all be destroyed in the process of clearcutting the forest. Everyone connected to the trees and flowers will have to drop their yarn. The local people who depended on the coffee trees for their livelihood will no longer have an income and they will struggle as well.)

• Climate change

(Due to human activities that increase the amount of greenhouse gases trapped in the atmosphere, the planet is warming. The hotter temperature melts glaciers and causes sea levels to rise. The heat increases the number of mosquitos who have the potential to spread malaria, a disease that harms humans, bats, birds, and monkeys. The plants struggle to survive in the hotter climate and the animals who depend on the plants struggle to survive as well. All the students who represent bats, birds, and howler monkeys should drop their yarn. Anyone who was connected to those animals should also drop their yarn.)

6. Explain that there are actions we can take to protect the ecosystem as well. These actions can support the people, animals, and plants in the ecosystem. Hold the *Ecosystem Protection* Cards facedown and ask student volunteers to select one

card at a time. Each time a card is selected, discuss how the action might protect the balance of the ecosystem, and have the students represent this by picking up the yarn to symbolize that they are repairing the web, and they have returned to the ecosystem.

• Support organic, shade-grown, fair-trade coffee

(Explain that the farmers in the story did not spray pesticides on the coffee trees [or use synthetic fertilizers], which means the coffee is organic. They also used shade-grown farming practices to protect the entire rainforest. When people purchase organic, shade-grown coffee, they are supporting farmers who are working to keep the ecosystem healthy. Let students know that organic, shade-grown coffee is not always available, and it can be more expensive. Some people write letters to coffee companies asking them to support and sell organic, shade-grown coffee that is fair trade (meaning the workers are paid fairly for their work) or to the government asking that we only import organic, fair-trade, shade-grown coffee. Have the students who represented the coffee trees and any other students who were connected to that thread pick up their yarn.)

• Support rainforest protection

(Let students know that there are some organizations whose mission is to protect the rainforest for the people who depend on it for their livelihood, for the animals who live there, and for the health of the environment. These organizations work to preserve the forest and prevent it from being cut down. People can support these organizations by donating to them or volunteering their time. Have the students representing any trees or flowers, and any students connected to those threads, pick up their yarn.)

• Help tackle climate change

(Discuss the causes of climate change with students and explain how actions that increase greenhouse gases anywhere in the world can affect the entire planet. Talk to students about personal actions that are known to mitigate climate change and let them know about government policies that have been introduced to mitigate climate change as well. [For additional information, see the *Climate Change Fact Sheet* in Lesson 5 of the *Jake and Ava: A Boy and A Fish* classroom guide or visit teachclimate.org.] If there are any other students who have not picked up their yarn, invite them to pick up the yarn.)

7. Acknowledge that the rainforest has been restored and it is healthy again. Collect the yarn and all the cards from the students.

Closing

- 1. Ask students to discuss the following with a partner, and then provide time for them to share with the whole class:
 - What is one thing that you learned about ecosystems?
 - How did you feel when the threats harmed the rainforest?
 - How did you feel when the protection actions were taken to help the rainforest?
 - What is one action we can take to protect the people and animals in the rainforest?
- 2. Ask students to complete a short writing reflection answering the following question:
 - Would you recommend the book, *A Warbler's Journey* to someone who wants to learn more about warblers, their habitats, and their lives? Why or why not?

Extension

- Ask students to create a drawing showing an ecosystem in the rainforest that is healthy. Ask students to label at least three specific images in their drawing.
- Invite students to identify some of the plants, animals, and physical elements in the northern Canadian park where the warbler is living at the end of the story. Ask students to draw a web that includes at least five living beings and nonliving things to show connections in the ecosystem.

A Warbler's Journey: Web of Life Teacher's Guide	
Living Being or Nonliving Thing in the Ecosystem	To Whom They Give Energy
Sunlight	Coffee Tree and Flower
Coffee Tree	Caterpillar, Moth Larva, Yellow Warbler, Green Parakeet, Honduran White Bat (only raw fruit), Howler Monkey, Beetle
Flower	Caterpillar, Moth Larva, Hummingbird, Butterfly, Beetle
Caterpillar, Moth Larva	Yellow Warbler, Long-Nosed Bat (carnivorous), Beetle
Butterfly	Yellow Warbler (sometimes), Snake
Hummingbird	Snake
Yellow Warbler	Snake
Howler Monkey	Jaguar
Honduran White Bat, Long-Nosed Bat	Snake
Jaguar	Earthworm, Beetle
Soil (decomposed plants and animals)	Earthworm, Beetle

Lesson 5: Looking at Our Relationships with Birds

Grades: 2 - 3

Vocabulary:

- Bipedal
- Captivity
- Species
- Traits
- Unique
- Warm-blooded

Objectives:

Students will be able to...

- name at least 4 different birds.
- identify at least 3 characteristics of birds.
- list what birds need to be happy and healthy.
- compare and contrast the yellow warbler to the black-billed magpie.

USA Common Core State Standards (CCSS) CCSS.ELA-LITERACY.SL.2.2

Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

CCSS.ELA-LITERACY.RL.2.7

Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

CCSS.ELA-LITERACY.RL.3.1

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Collaborative for Academic, Social, and Emotional Learning (CASEL) CASEL SEL Competencies: Social awareness, Responsible decision-making

Humane Education Coalition - Core Components of Humane Education (CCHE) <u>CCHE:</u> 1: C, D, F, G, I, J; 2: A, C, D; 3: A, B, E, F; 4: A; 5: A, B, C

Materials Needed:

- *Birds* Poster (see the *Appendix*)
- A Black-Billed Magpie Reading (see the Appendix)
- Yellow Warbler and Black-Billed Magpie Chart (see the Appendix)

Lesson Procedure

Opening

- 1. Explain to students that they are going to think about different species of birds, the lives of birds, and the way that some birds are treated by people.
- 2. Let them know that you want to start by reviewing the life of the yellow warbler in the book, *A Warbler's Journey*. Ask students the following questions:
 - How would you describe the life of the yellow warbler?
 - What do you think she has enjoyed about her life?
 - What challenges do you think she has experienced?
- 3. Explain that there are many different species of birds with very different lives and experiences. Show students the *Birds* Poster and ask them to name the birds. Ask them to look at the birds and think about what traits all birds have in common. (Suggest to students that they think about what these different birds have in common and what is unique about them compared to other animals.) Allow for responses and then share the following:
 - Birds:
 - o are warm-blooded (maintain body temperature, just like humans).
 - o are bipedal (have two legs or limbs to move).
 - o have wings.
 - o are covered in feathers.
 - have a beak (not a mouth with teeth).
 - lay eggs that are developed outside of their body (think of a bird laying eggs in a nest and sitting on them until they hatch).

Body

1. Let students know that you all are going to do some pretending. State the following to help them get into character:

- First, we have to decide which bird we want to be. You can choose to be any bird you want. (If needed, remind them of the birds on the poster, list additional birds, and have student volunteers name birds like hummingbirds, cardinals, ostriches, mourning doves, gray parrots, lovebirds, chickadees, and turkeys.) Stand so that you are an arm's length away from anyone else. Imagine turning into the bird you chose. Think about the color(s) of your body and feathers. Let's try flapping our wings. Imagine putting on your beak. Think about the size of your beak as you put your beak on and move your head around. Imagine what your legs and feet look like.
- 2. Let students know that they are going to explore their surroundings. They need to stay in the designated area and make sure that they do not bump into anyone or anything else (e.g., desks, objects in the room). Explain that when you call out "Freeze," they have to stop what they are doing and wait for further directions. Provide this guidance so that they can practice:
 - First, we are going to practice just where we are standing. When I say "Go," we can move like the bird we chose where we are standing, and when I say "Freeze," we have to stop moving.
 - Go! (Watch students pretend to be birds where they are standing. Provide guidance if needed.)
 - Freeze! (Repeat this step if students need additional practice.)
- 3. Now students are ready to be birds and move around the area. Say "Go" to let students know they can explore the area as birds. Let students act as birds for a couple of minutes and then say "Freeze." Next, let them know that when you say the word "Go" this time, they are going to be birds moving in slow motion. Say "Go" and let students act as birds again for another minute, and then say "Freeze" again. Now, let the students know they are going to move at a regular speed again and they are going to move back to where they started. Once the students have moved back to where they started, say "Freeze."
- 4. Share the following with students:
 - We are going to turn back into ourselves. Imagine your bird legs turning back into your human legs, your beak turning back into your nose, your feathers turning back into your skin, and your wings turning back into your arms.

- 5. Invite students to sit together in a circle again. Ask students to answer the following questions:
 - What was the best part about being a bird?
 - What challenges do you think you might experience as a bird?

Activity

- 1. Have students work either independently, in pairs, or in small groups to read the *A Black-Billed Magpie* document together or read it aloud as a whole class. Then, invite students to complete the *Yellow Warbler and Black-Billed Magpie* Chart independently, with a partner, or in a small group.
- 2. Have students discuss the following as a whole class:
 - How are the lives of the yellow warbler and the black-billed magpie similar? How are their lives different?
 - What do you think birds need to be happy and healthy?
 - What do you think each of these birds might say to us if they could talk to people?

Closing

Ask students to complete an "Exit Ticket" with a short writing reflection by finishing one of the following sentence starters:

- One thing that I have learned about birds is...
- One thing that I think people should know about birds is...
- If I were a bird...

Extension

- Ask students to write an acrostic poem about either the warbler or the magpie. (An acrostic poem is one that uses all the letters in a word or name as the first letter of each line of the poem.) To enhance this activity, students can draw a picture to represent their poem.
- Have students choose a bird who is native to North America. Invite students to research that bird's physical characteristics, natural behaviors, dietary needs, and social life. Provide students with the opportunity to make a mask of their bird with reused and repurposed materials. Then, have students use their masks to speak as the bird they researched and answer the question, "What do you want people to know about you?"

APPENDIX: SUPPLEMENTAL TEACHING MATERIALS FOR LESSONS 1-5

Lesson 1: Reading and Understanding *A Warbler's Journey*

Warbler Journey Cards

Instructions: Print this page and cut on the dotted lines so each station has 1 card.

Station 1: The Rainforest

Welcome to the rainforest. Enjoy the delicious caterpillars and all the rainwater you could want. If you sit still long enough, you can hear howler monkeys. Enjoy your "snug little roost" where you can rest.

- What are the challenges you face in the rainforest?
- What are your favorite parts about living in the rainforest?

Station 2: Start of the Journey

Welcome to the first part of your journey. You are traveling from the rainforest to the Gulf of Mexico and then all the way across the gulf. You are eating everything you can and continuing to fly, no matter what the weather.

- What challenges do you face on this part of your journey?
- What are your favorite parts about this phase of your journey?

Station 3: The Garden

You made it to dry land and ended up in a beautiful garden with a boy and his grandmother. You are enjoying the rest and the food that this garden provides.

- What challenges do you face in this garden?
- What are your favorite parts about your stay in this garden?

Station 4: Flying North

You are now flying north over swamps, pastures, and forests through the United States and Canada. Spring is warming the air and you are encountering many different kinds of plants and animals.

- What challenges do you face in this part of your journey?
- What are your favorite things about this phase of your journey?

Station 5: The Park

You made it to a lake surrounded by trees. This is where you were born and where you will stay until it is time to migrate again. Here, too, you will find your family.

- What challenges might you face in this place?
- What are your favorite parts of this place?

Lesson 2: The People Along the Journey

Family Members





The girl on her family's finca (farm) with her brothers, sisters, parents, abuelito, and abuelita.

The boy with his grandma in her backyard.

The girl walking with her parents near a lake by the tundra hillside.



Family #1

Family #2





The girl lives in Nicaragua, a country in **Central America (the** southernmost region of North America).

The boy lives in the **United States of America**, a country in North America between **Mexico and Canada.**

Family #3



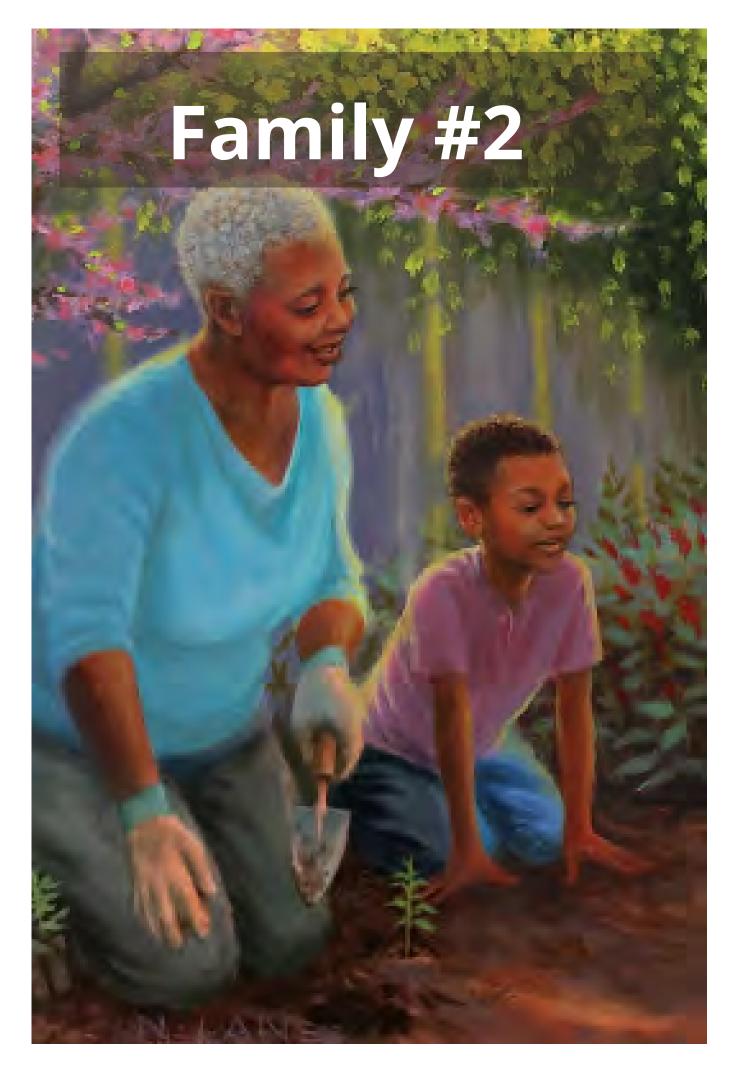
The girl lives on First **Nations Indigenous Territory** in the northwest region of **Canada** in North America.

Language



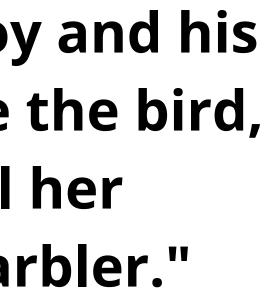
When the girl and her abuelito see the bird, they call her "reinita amarilla."

Spanish

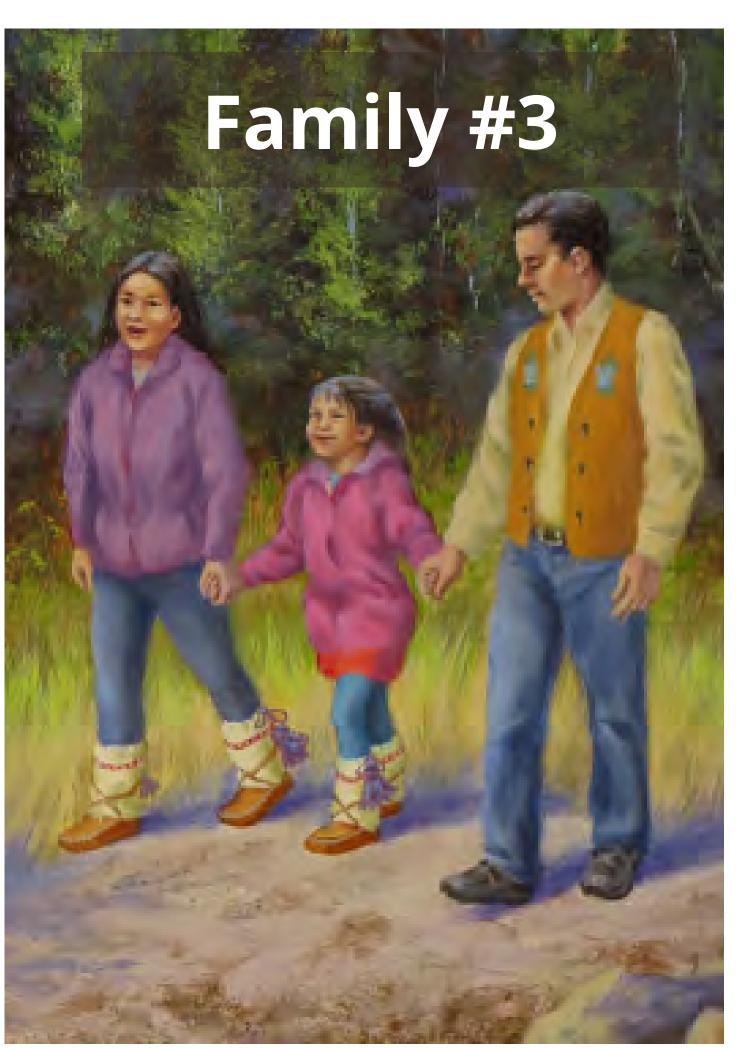


When the boy and his grandma see the bird, they call her "yellow warbler."

English



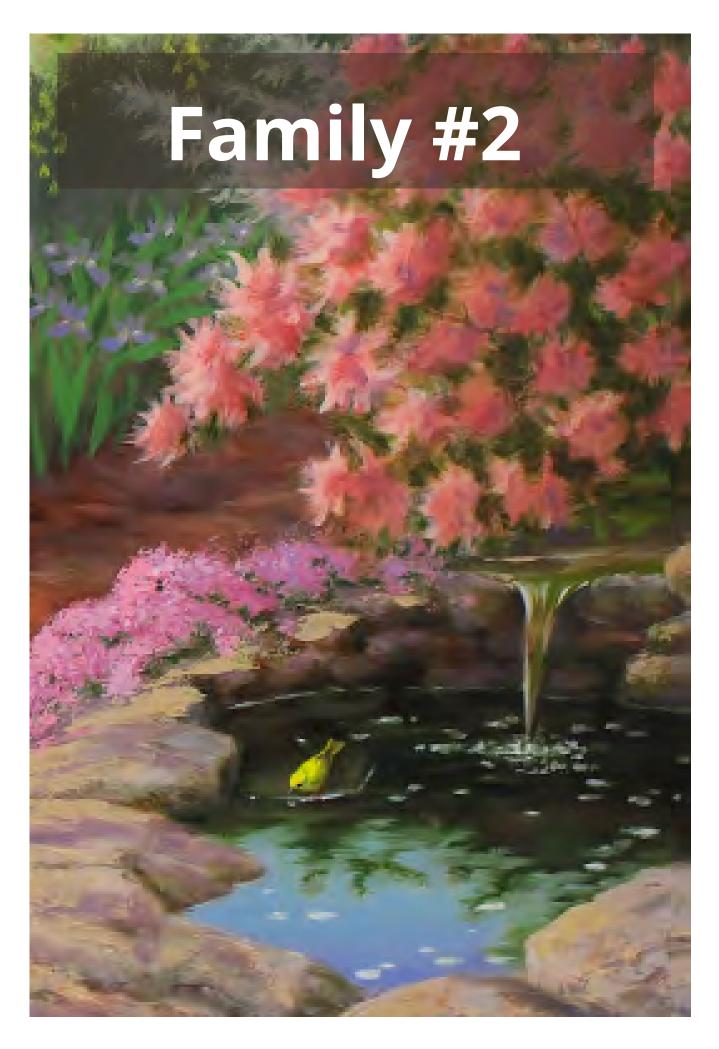
When the girl and her parents see the bird, they call her "įyesaze."



Dene

Ecosystem Support





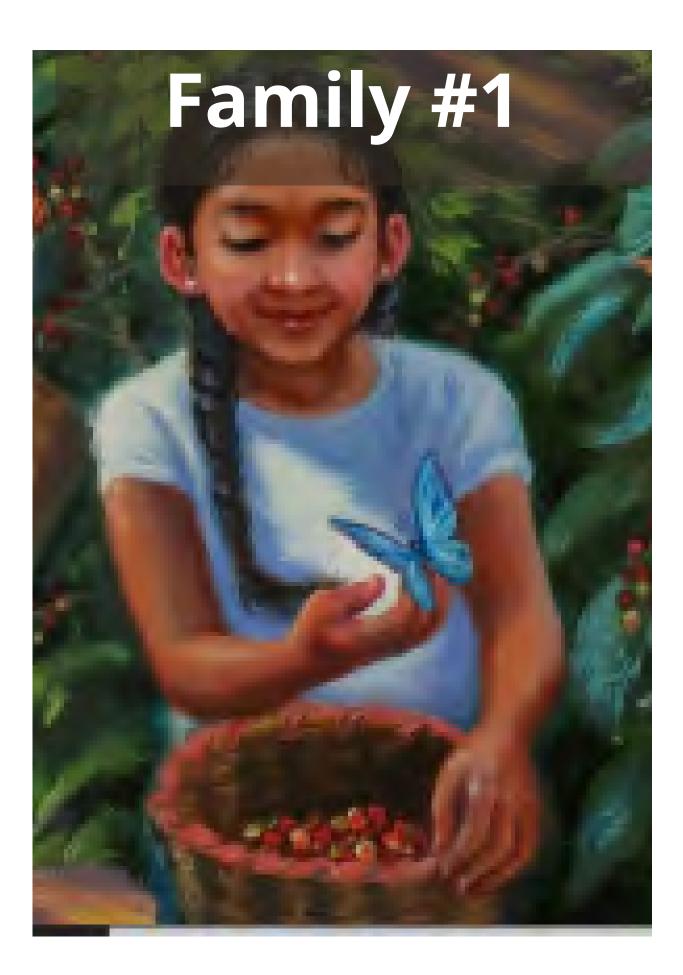
The girl and her family are coffee farmers. The coffee trees produce coffee beans and attract insects, providing the warbler with food.

The boy's grandma planted a beautiful garden with flowers, shrubs, and a pond, providing a good place for the warbler to rest, find food, and drink water.

The girl and her parents cheer as their elected chief and ministers from the government signed papers to officially protect the land forever.



Special Fact

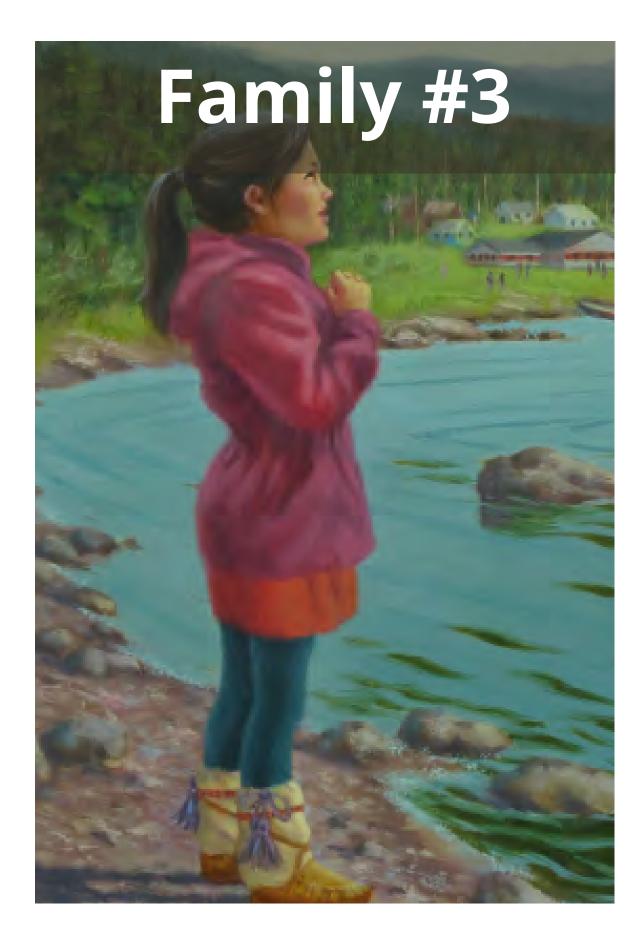


Family #2

The girl was excited because she had "no school." It was the end of the harvest and she needed to help her family gather the last of the coffee. She enjoyed watching the butterflies, hummingbirds, and parakeets.

The boy loved his grandma's backyard garden filled with beautiful colors and smells. He was helping his grandma to plant more flowers.





The girl was so happy that the deep clear lake, the river, and the land were safe, not just for her family, but for the birds, the animals, and all the people.

Families from A Warbler's Journey

Namal	- / -
Name(51.

Date:____

Family Members	Country	Language	Ecosystem Support	Special Fact
	Members	Members	Panny Country Language Members Image:	Members Country Language Ecosystem Members Support

Reading 1: The Family from Nicaragua

The family in Nicaragua grew coffee trees on their land and used methods of farming called "organic" and "shade-grown." Some farmers spray their trees with harmful chemicals called pesticides that kill insects to prevent them from eating plants. Birds might become sick if they eat insects on trees sprayed with pesticides. Since the family in Nicaragua did not use any pesticides (or any synthetic fertilizers) on their land, their farm was organic, so the insects on their property were healthy and the birds had plenty of food to survive. Shade-grown is a traditional way of growing coffee trees under the canopy of the forest. This is very different from the sun-grown method, through which the entire forest is cleared away. The sun-grown method is often used by large companies because they can plant more coffee trees closer together, making it easier and faster for them to water, manage, and harvest the coffee beans with machines than by using the shade-grown method. However, over time, the sun-grown method damages the land, takes many nutrients out of the soil, and causes erosion. The shade-grown method protects bird habitat and the health of the ecosystem.

Sometimes farmers work on coffee farms owned by large companies that do not pay their workers fairly for the work they do. The company owners want to make more money for themselves. There are organizations working to help improve labor conditions for farmers, and to support "organic, shade-grown" practices that are better for animals and the environment. Some coffee has a "fair-trade, organic, shade-grown" label, which means that the coffee farmers are paid fairly for their work, and the coffee was grown using environmentally friendly farming methods. "Fair-trade, organic, shade-grown" coffee is usually more expensive than typical coffee because the customer is paying a higher price so that more money is directed to the farmworkers and toward sustainable farming practices. "Fair-trade, organic, shade-grown" coffee is not sold at as many places as typical coffee, but as more people ask for and buy "fair-trade, organic, shade-grown" coffee, it will become more affordable and easier to find.

Reading 2: The Family from the United States

The grandma from the United States was an expert in gardening. She had a lot of space in her backyard and, instead of having a grass lawn, she created a beautiful area filled with flowers, shrubs, and a pond. She taught her grandson how to garden with her and to grow the plants that would be most helpful to the wildlife in her community. She grew plants to support pollinators (animals who spread pollen to help more plants grow) such as bees and butterflies. Her garden was a peaceful place for people, and it also provided food, water, shelter, and an area to rest for birds and other animals.

Many people would like to have a flower or vegetable garden, but they may not know how to get started, or they may not have much space. Most people who live in big cities do not have large backyards, or they may live in an apartment building with no land at all. There are some environmental organizations that help teach people how to garden, provide them with the needed supplies, and even give away seeds. Even if someone does not have a yard, there are ways to grow flowers, herbs, or plants in small pots or window boxes. Also, in some neighborhoods, there are community gardens where people share land and have a nice place to enjoy nature, support wildlife, and grow healthy fruits and vegetables.

Reading 3: The Family from the First Nations Indigenous Territory in Canada

The family from the First Nations Indigenous Territory in Canada supported their elected chief and the ministries of their government in signing an official document called a proclamation to protect the land where they lived for generations to come. The proclamation says that people must live harmoniously on the land and not pollute the ground, air, or water. It is a way to make sure that all the people and animals, including the birds, who live there have a healthy home. The girl and her family celebrated when the leaders of their tribe signed this document into law.

This action not only protected the environment, but also helped to preserve the Indigenous Peoples' culture and their way of life. With their land officially protected, they would be able to continue their traditional way of life on the land and pass on their cultural practices to their children for many years to come.

Lesson 3: Migration Investigation

Fascinating Facts About Yellow Warblers

Print and cut out

Yellow warblers are small birds. Their average length is 5 inches. (Note: Your thumb is about 1 inch long.)

Yellow warblers have a larger range — meaning they are found in more parts of North and South America — than almost any other warbler.

A yellow warbler's nest is a small cup woven of fine grass, bark weeds, and soft down from plants.

Cowbirds sometimes lay their eggs in the nests of yellow warblers.

Yellow warblers eat mostly insects.

Yellow warblers can form "monogamous pairs," which means that each bird may have the same partner through several seasons.

Snakes, red squirrels, jays, crows, raccoons, weasels, skunks, and cats are all common predators of a yellow warbler's nest, meaning they might eat the eggs laid by a yellow warbler, or eat or attack the yellow warbler.

There is concern that there are fewer yellow warblers now than there used to be. It is important that their habitat is protected so that we can protect the warbler.

To protect yellow warblers from running into buildings when they fly at night, we can encourage people to turn off the lights in large structures and put decals on the windows.

The number of eggs a yellow warbler has at one time is called a clutch and can be anywhere from 1 - 7 eggs.

Sources: <u>https://easyscienceforkids.com/all-about-warblers/</u> and <u>https://www.allaboutbirds.org/guide/Yellow_Warbler/</u>

Lesson 4: Exploring the Rainforest

Sunlight



Coffee Tree (Coffee Beans)



Flower (Sacuanjoche - Nicaragua's National Flower)



Caterpillar (Blue Morpho Caterpillar)



Photo by: © <u>emills1</u> Some rights reserved (<u>CC BY 2.0</u> <u>International</u>).

Moth Larva (Coffee Leaf Miner Moth Larva)



Photo by: © <u>Emily Summerbell, Ph.D.</u> Some rights reserved (<u>CC BY 4.0 International</u>).

Butterfly (Blue Morpho Butterfly)



Hummingbird (Purple-Throated Mountain-Gem)



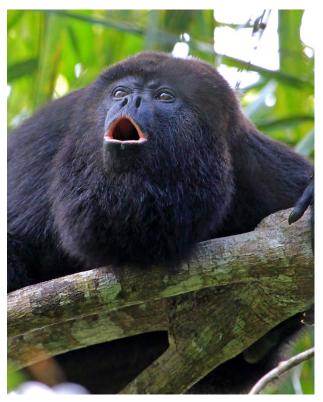
Bat (Honduran White Bat)



Green Parakeet



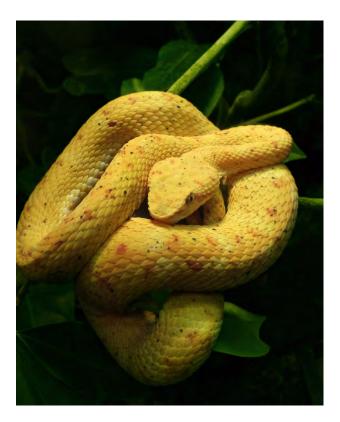
Howler Monkey



Yellow Warbler



Snake (Eyelash Viper)



Bat (Long-Nosed Bat)



Jaguar







Earthworm



Ecosystem Threat Cards

Spraying Pesticides on Coffee Trees

Clearcutting of the Rainforest



Climate Change



Ecosystem Protection Cards

Organic, Shade-Grown, Fair-Trade Coffee





Support Rainforest Protection









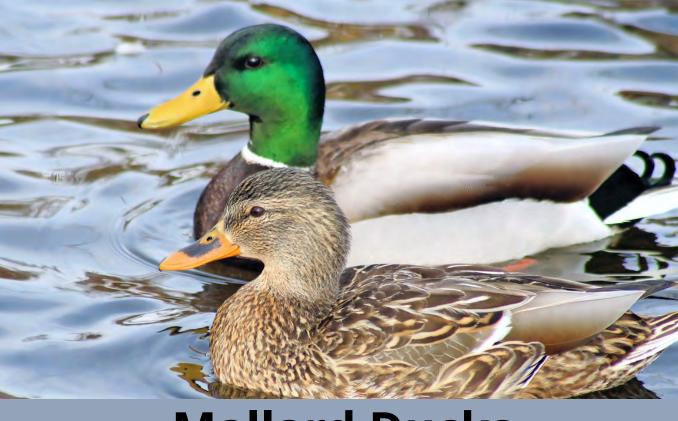
Lesson 5: Looking at Our Relationships with Birds

Birds

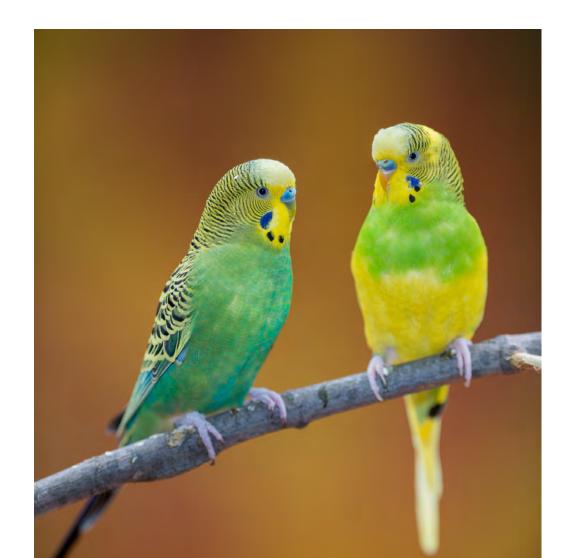


Rock Pigeons





Mallard Ducks



Adélie Penguins



Sandhill Cranes

Budgerigar Parakeets



A Black-Billed Magpie

Black-billed magpies are medium-sized (18 - 24 inches long) black birds with white patches on their lower chest and wings, whose tails are almost as long as their bodies. This black-billed magpie lives in the grasslands of southern Arizona. He does not need to migrate from season to season because he is able to survive in the same habitat all year long. He is part of a flock of about 30 magpies who all live close to each other.





He and his mate built a large, strong nest together that is almost two feet wide and three feet high in a tall tree. (Magpies are known for building great nests, which is an important skill because it can protect birds from predators and other dangers.) They built their nest in a good location, near a stream and a garden, where they are able to have everything they need. There is something extra-special about the nest this spring. It contains the six eggs that this magpie's mate just laid. Now, they are waiting for their chicks to hatch.

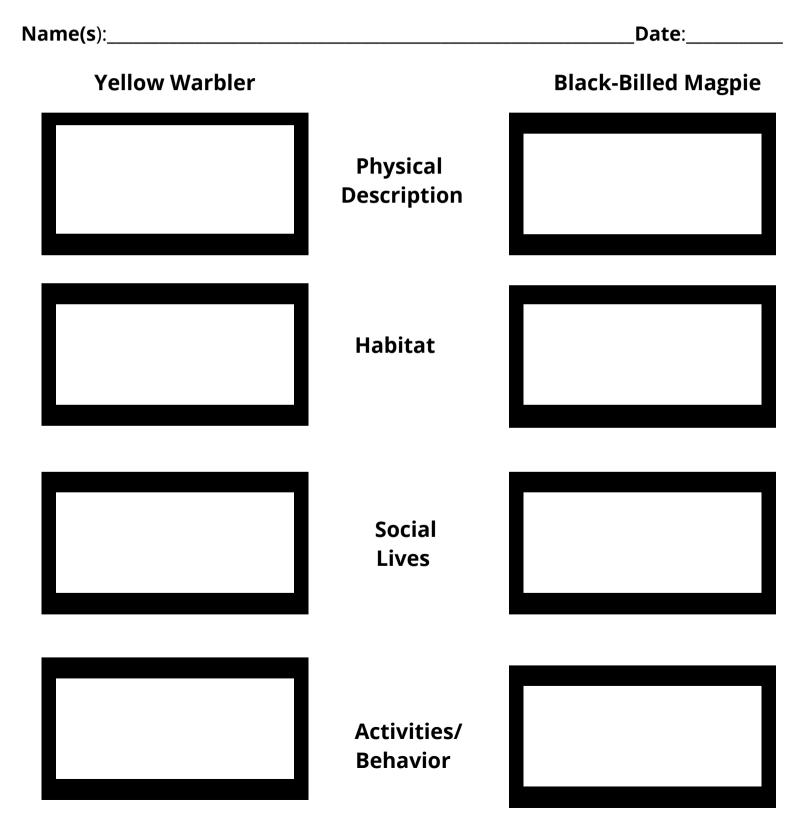
Sources:

Black-Billed Magpie, BioKids, http://www.biokids.umich.edu/critters/Pica_hudsonia/ *All About Birds: Black-Billed Magpie*, The Cornell Lab, https://www.allaboutbirds.org/guide/Black-billed_Magpie/overview# Wall, Susie. *Black-Billed Magpies: Common But Uncommonly Smart*, Montana Natural History Museum. (8 Oct. 2019), https://www.montananaturalist.org/blog-post/black-billed-magpies-common-but-uncommonlysmart/#:~:text=Since%20magpies%20don't%20migrate,human%20and%20other%20animal%20sounds.

Yellow Warbler and Black-Billed Magpie Chart







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