

## **Lesson: Where in the world is the Ruby-Throated Hummingbird?**

**Grade Level:** Second Grade, Life Sciences

**Overview:** In this lesson, students will learn about the Pennsylvania state hummingbird, The Ruby-Throated (R.T.) Hummingbird. Students will learn how this special hummingbird is a natural pollinator and its amazing annual journey through the United States. Students will work together to discover this pollinator's migration route through North America. Students will receive 5 diary passengers written from R.T. Hummingbird who is migrating north for the summer months. Each diary passage has geological context clues. Students will use the clues and a physical region map as a key to help guide them into finding the correct 5 locations. Students will then connect the 5 location spots to observe the northern migration route of the R.T. Hummingbird. Students will also learn about different types of flowering plants that grow due to an environment and how animals adapt to change.

### **Science Content & Standards:**

#### **Pennsylvania New Academic Standards for Science-**

<https://www.pdesas.org/Page/Viewer/ViewPage/11>

**Life Science-** Biological Evolution: Unity and Diversity

**Standard- 2-LS4-1:** Make observations of plants and animals to compare the diversity of life in different habitats.

### **Science Practices:**

#### **APPENDIX F – Science and Engineering Practices in the NGSS**

<https://www.nextgenscience.org/sites/default/files/Appendix%20F%20%20Science%20and%20Engineering%20Practices%20in%20the%20NGSS%20-%20FINAL%20060513.pdf>

#### **Practice 8 Obtaining, Evaluating, and Communicating Information**

- Compare and/or combine across complex texts and/or other reliable media to support the engagement in other scientific and/or engineering practices.
- Obtain and combine information from books and/or other reliable media to explain phenomena or solutions to a design problem.
- Communicate scientific and/or technical information orally and/or in written formats, including various forms of media as well as tables, diagrams, and charts.

### **Social Studies Content & Standards:**

#### **Pennsylvania Academic Standards, Social Studies**

<https://www.pdesas.org/Standard/View>

**Geography:** 7.2: Physical Characteristics of Places and Regions

**Standard- 7.2.2.A:** Identify the physical characteristics of places.

**Standard- 7.2.2.B:** Identify the basic physical processes that affect the physical characteristics regions.

**Social Studies Practices:**

<https://www.pdesas.org/Standard/View>

**Geography:** is the science of space and place on Earth's surface. Its subject matter is the physical and human phenomena that make up the world's environments and places. Geography helps students understand spatial contexts, recognize places and regions as human concepts, and understand physical processes that have shaped the Earth's surface and the patterns resulting from those processes.

**Materials:**

- Pencils
- Optional: U.S. regional maps

**Resources:**

- Read a-loud, "My Tiny Life By Ruby T. Hummingbird" by Paul Meisel  
<https://www.amazon.com/Tiny-Life-Hummingbird-Nature-Diary/dp/0823443221>
- Physical U.S. Map, <https://gisgeography.com/physical-map-united-states/>
- "Where in the World is R.T. Hummingbird?" student guided worksheet
- Student resource videos:
  - <https://youtu.be/PQ8ESSsjiKq>
  - <https://youtu.be/1lpE8NaGVKA>
  - <https://youtu.be/dUHSiFphyVU>

**Learning Objectives:**

- Students will learn about the state hummingbird and pollinator, The Ruby Throated Hummingbird.
- Students will learn about these hummingbirds' amazing migration.
- Students will learn about how hummingbirds are pollinators.
- Students will find the correlation between context clues and using a physical region map.
- Students will work together to communicate and evaluate context clues to find the correct location of the Ruby-throated Hummingbird.

**Procedure:**

1. The teacher will introduce the lesson by showing students one of the student resource link videos, "Ruby-throated Hummingbird Facts". Students will gain knowledge about the hummingbird with the video.
2. The teacher will then read aloud the following book, "My Tiny Life By Ruby T. Hummingbird" by Paul Meisel. The teacher will check student participation by asking questions during the reading.
3. The teacher will then start the activity by explaining the great northern migration of the Ruby-Throated Hummingbird.
4. The teacher will model to students how to read a physical region map by using the "U.S. Physical Map" in the listed resources, as a way to demonstrate understanding.
5. Then the teacher will put students into small groups. Groups will receive the student guided worksheet, "Where in the World is R.T. Hummingbird?".

6. Students will have 15-20 minutes to work together in small groups to locate the northern migration journey of the Ruby-throated Hummingbird. Students will need to use the two maps on the guided worksheet as a guide to locate the 5 “pit stops” the hummingbird took in his journey.
7. Once students have completed the activity, the teacher can guide students into checking the completion of work.
8. Once the activity is completed, the teacher can show another short resource video about the Ruby-Throated Hummingbird, *“How do Hummingbirds Help Pollinate?”*



Dear Pollinator Friends,



Read the 5 diary passages to figure out the location of our pollinator friend, the Ruby-Throated Hummingbird. As a helpful tool, use Map A and Map B on page 2. Both maps will serve as a guide to help you locate the migration route of our hummingbird! When ready, complete the questions on page 3.

March 02, 2022

As I start my migration north, I am at a large lake. I want to make sure I am ready for a big flight. The Gulf of Mexico is to the west of me.

I am between the two cities, Miami and Tampa. I can smell the orange blossoms that have bloomed here. What state am I visiting?



March 26, 2022

I have made it to my second stop. My wings are tired and I found some beautiful barrier islands to rest at, the Sea Islands. I love to stop here because my favorite nectar is here! This state flower is shaped tubular and makes it easy for me to drink from. I love to drink from these Yellow Jessamine flowers. The North Atlantic Ocean is to my east. What state am I in?



April 11, 2022

I have stopped at an area with high elevation. I'm located in the Appalachian Mountains. Did you know this mountain range was formed over 480 million years ago! There are lots of pink and white flowering dogwood to drink from. The Cumberland Plat is to the left of me. I am currently on Mnt. Rogers. What state am I in?



April 26, 2022

From the mountains, I headed north-east and landed in a city close to the North Atlantic Ocean! A city full of history and where the Declaration of Independence was signed. In fact, I even got to visit the Liberty Bell. In the summer, there will be lots of Mountain Laurel flowers that will bloom here. Even though I am not in the capitol city of Harrisburg, there are lots of people here. What state am I in?



May 07, 2022

I have made it to my last stop! I am at the Great Lakes. This area is located right at the border of Canada. I made a nest where there is a big waterfall and I have heard people call it the Maid of the Mist. There are lots of blooming red roses here. Did you know red is my favorite color! Even though I don't drink nectar from roses there are lots of insects to eat here because of the large amount of water. What state am I in?





# Canada



Map A



Map B

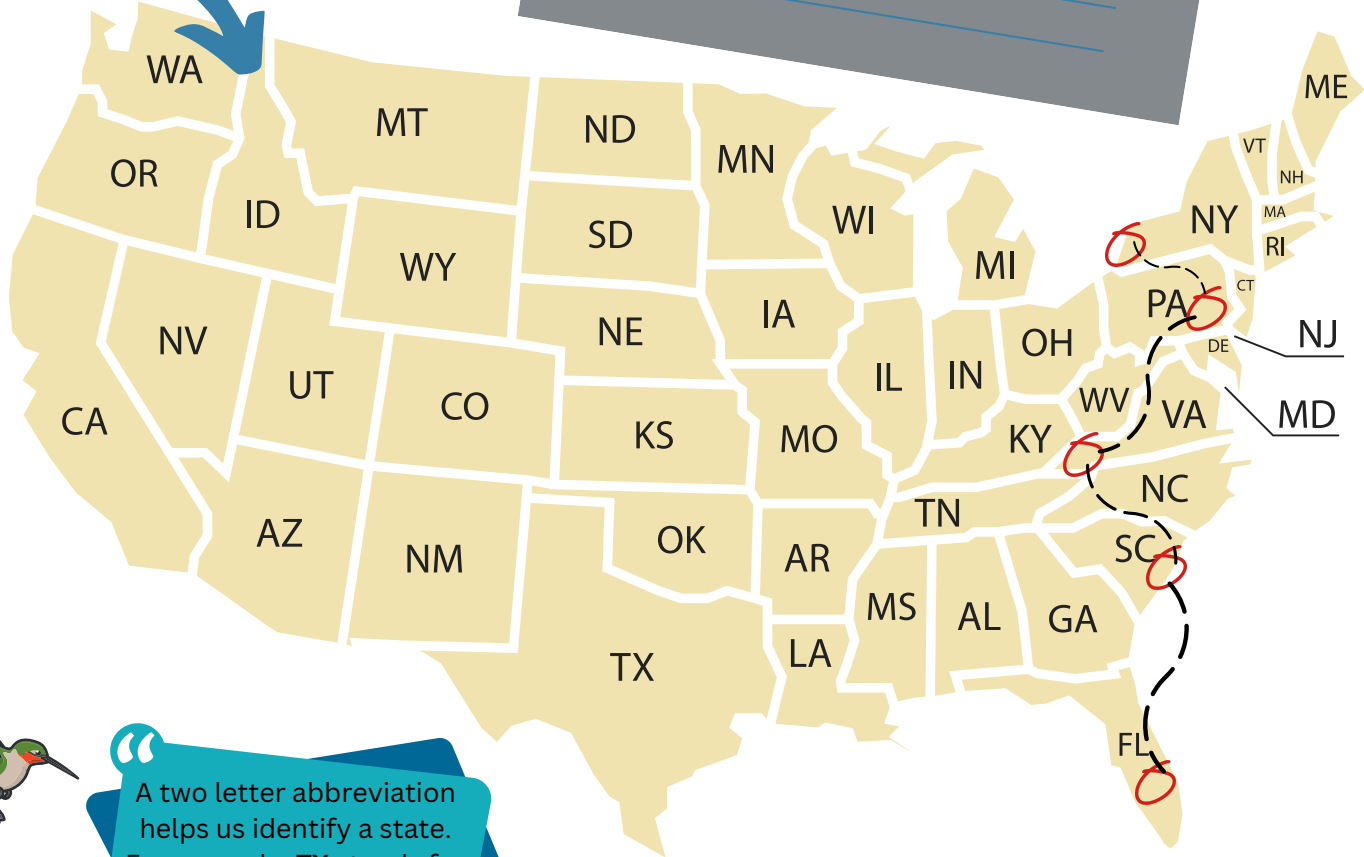
**Direction:** The key map below shows you R.T. Hummingbirds route. Use the map to list in order the states that R.T. Hummingbird visited on his migration route.



- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_

*I Wonder...*  
 Based on the diary passages and the map, where do you think R.T. Hummingbird is heading to next?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Key Map**



“ A two letter abbreviation helps us identify a state. For example, **TX** stands for the state **Texas**! ”