



madison
AUDUBON



Curriculum Set: Climate Initiative

Young Ambassadors for Birds in the Face of Climate Change

**Lesson 2: Climate Change introduced through
Habitat Scramble**

Goal: Students are introduced to the scope of climate change, and the impacts it is having on local habitat.

Science

Adaptable for Grades 4-8

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Total lesson time: 1 hr 15 min

Lesson: 30 minutes

Game: 30 minutes

Materials needed:

Presentation on Climate Initiative Lesson 2

Habitats for the Habitat Scramble! game (construction paper of various colors)

Madison Audubon Society Bird Flashcards

Habitat Scramble! game instructions

Lesson


Tips:

- Write the new vocabulary words on the board so that kids know how they are spelled AND teachers can refer to them later throughout the day.

Outline

The Scientific Method

1. Ask the class if they remember what the scientific method is.
2. Review the scientific method
 - a. Ask a question: look at the world around you for inspiration. What would you like to know more about?
 - b. Make a hypothesis: this is a possible answer to your question, kind of like an educated guess. You should be able to say that it is true or false (accept or reject it) at the end of your experiment.
 - c. Collect data: go collect data that will help answer your question. Be sure to discuss the importance of unbiased data with older kids.
 - d. Draw conclusions: Look at your data. Does it support or contradict your hypothesis?
 - e. Share your results: spread the word! Scientists do this by writing papers, making posters, and giving presentations.
3. Ask the class if they remember what “phenology” is.
 - a. Phenology: the natural progression of events as they happen throughout the seasons.
 - b. Why we are recording phenology: to compare our data with long term data sets. We will investigate whether or not there has been a shift in the timing of natural events
 - c. Ask the class if they remember who the man in the picture is (Aldo Leopold) and why he is important (he collected phenology data in the early 1900s, and we will compare our data to his).
4. Ask the class if they can think of anything that might cause a shift in phenology, or a shift in when animals do things.
 - a. Give the example of migration: when do birds usually migrate? What might cause them to decide to migrate earlier or later each year?

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5. Climate change is causing shifts in phenology.
 - a. The Earth is getting warmer, and plants and animals are responding to that.
 6. Vocabulary break!
 - a. Ask the class if they know what a “habitat” is (a home for an animal; the place that an animal can find food, water, and shelter).
 - b. Ask the class if they know what a “diet” is (what an animal needs to survive; the food and water it usually eats).
 - c. Walk the class through defining “generalist” and “specialist”. Use the pictures on the sides of the slide as examples.
 - i. An animal can be a habitat generalist or specialist. The same is true of diet.
 - ii. Ask the class if it is possible to be a habitat generalist and a diet specialist (yes!)
 - iii. Ask the class if it is possible to be a habitat specialist and a diet generalist (yes!)
 - d. Now walk the class through the definitions for “extinct” and “extirpated”.
 - i. The dodo bird used to live on Maurius island in the Indian Ocean. It was hunted for food by sailors. The sailors also brought rats to the island that ate the dodo’s eggs and young. The last dodo bird died in 1681. There will never be another dodo bird living in the world, therefore they are extinct.
 - ii. Gray wolves were extirpated from much of the Midwest, and there were no more left in Wisconsin by 1900. Wolves were extirpated, since there were no more in Wisconsin, but there were still wolves living in other parts of the world.
 7. Introduce Habitat Scramble!
 - a. Show the class the bird flashcards.
 - i. The back is very busy. We don’t need to pay attention to all of it right now, just focus on the top part: whether the bird is a habitat generalist or specialist.
 - b. This bird is a Bobolink, and they live in grasslands. It is a habitat specialist, it needs grasslands to survive, but they are sometimes found in hay fields (agriculture).
 - c. Now, let’s talk about a Herring Gull. It is a habitat generalist. Ask the students how many habitats it can be found in.
 - d. Direct the class to look at the colors. Tell them that each color represents a habitat type.
 8. Pass out the Madison Audubon Society bird flashcards, and get ready to play.