



OBJECTIVES

- Students will learn about the wide variety of pollinators.
- Students will research pollinators and understand their impact on the environment.

MA STATE FRAMEWORK(s)

- MA.W.7.2, 4, 5, 8, 9, 10
- MA.W.8.2, 4, 5, 8, 9, 10
- MA.W.9-10.2, 5, 4, 10,
- MA.W.11-12.2, 5, 4, 10

ESSENTIAL QUESTIONS

- How do pollinators affect our environment?
- Could we survive without pollinators?
- What role do pollinators play in our food systems?

MATERIALS NEEDED

- Computer for student research

LESSON

Introduction

When you think of pollinators most people think of bees and monarch butterflies, or perhaps birds and bats, but probably not bears, lizards, over 1000 other vertebrates, and over 200,000 other insect species!

According to the USDA, approximately three-quarters of the basic food crops that we eat, use for fiber (and other raw materials), as well as 80% of flowering plants rely on animal pollination. Pollinators also support clean air and prevent soil erosion.

For this project, students will choose a pollinator to explore. They will follow guided questions on an outline and create a presentation of their findings.

Procedure

Introduce this research project by discussing what types of pollinators students are aware of as well as the purpose of pollinators in our environment, and food supply. You can use this Pollinator or Not? (<https://bit.ly/3G1rrnW>) slide deck as a visual to spark class conversation. Assign each student a specific pollinator (suggested list on following page) to research.

PROCEDURE, cont.

POLLINATOR LIST

Noronha Skink	Lesser Long-Nosed Bat	Yucca Moth
Mauritius Ornate Day Gecko	Mexican Long-Tongued Bat	Hoverflies
Ruffed Lemur	Northern Blossom Bat	Hawkmoths
Bush Babies	Fruit Bat	Elephant Shrew
Sugar Gliders	Flying Foxes	Blue Tailed Day Gecko
Squirrels	White Wing Dove	Cockroach
Honey Possum	Drakensberg Crag Lizard	Beetles
Big Eared Possum	Hummingbirds	Wasps

In addition to basic background info on the pollinator (habitat, diet, etc), students should focus on the animal as a pollinator and attempt to answer the following questions:

- 1) How does the pollinator pollinate? (How does it carry its pollen?)
- 2) What is the pollinator's impact on its environment?
- 3) Are there any specific plants whose survival depends on this pollinator?
- 4) Does this pollinator replace a more common type of pollinator?
(i.e; lizards replacing birds/ insects on islands)
- 5) How does this pollinator impact food systems, such as:
 - a) Impact on people
 - b) Plants used for medicine, food,
 - c) Impact on other animals
 - d) Does this pollinator eat other animals or insects that interfere with our agriculture?

Students should follow all steps of the writing process, have multiple drafts, conference with others, use appropriate sources and citations for their information

When student projects are complete, hold a classroom gallery walk or have students share their learning with the class. Students can also publish their work in a group slide deck, magazine, or bulletin board.

EXTENSIONS & VARIATIONS

Share the projects with the greater school community by visiting other classrooms, creating a multimedia project, or writing to their local paper.