Dickinson County Nature Center
Grade 2 — "Pollinator Power"

Core expectations

2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants

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

Activity Time

One 30-minute session

Contact:

Environmental Education Team

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Program Alignment with Iowa Core Curriculum

Disciplinary Core Ideas

- **LS2.A: Interdependent Relationships in Ecosystems:** Plants depend on animals for pollination or to move their seeds around.
- **LS4.D: Biodiversity and Humans:** There are many different kinds of living things in any area, an they exist in different places on land and in water.
- **ESS2.B: Plate Tectonics and Large-Scale System Interactions:** Maps show where things are located. One can map the shapes and kinds of land and water in any area.

Investigative questions

- Why is pollination important?
- Who helps to pollinate our plants?
- What is pollination?
- How can you help pollinators in our community?

Investigative phenomena

Students will get to explore the world of pollination through two interactive lesson plans that focus on the importance of pollination and who our pollinators are.

Practices (SEPs)

- Students and a naturalist will carry out an investigation on what types of plants need our local pollinators.
- Students will make observations about which fruits and veggies are pollinated by pollinators.
- Students will analyze and interpret what pollinators pollinate which foods.
- Students will create a model to show which pollinators pollinate which foods.

Cross Cutting Concepts students will identify

- Structure and function of a flower.
- Structure and function of pollinators' adaptations.
- Systems and system models of local pollinators.
- Patterns of adaptations among pollinators.
- Cause and effect of resource availability in habitats.

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Creation date: December 2017

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Supplies

All supplies brought by the nature center unless otherwise arranged.

- Large world map
- Replica fruits and veggies
- Basket and a stuffed animal for each pollinator
- Magnetic pins

Program Overview

Background

Birds, bats, bees, butterflies, beetles and other small animals help to pollinate plants that bring us one out of every three bites of food. Along with giving people the opportunity to eat a balanced diet, pollinators also help to give us diverse and healthy ecosystems.

Pollinating creatures travel from plant to plant carrying pollen on their bodies. As the pollen is carried by the animal, the pollen grains move from the anther (male part) of one flower to the stigma (female part) of another flower. This is the first step in the process that produces seeds, fruits and the next generation of plants. This can happen in many ways such as self-pollination, wind and water pollination and by animals. The focus of this lesson will be the importance of our worldwide pollinators that help to create food and home goods that make our lives more comfortable.

Procedure

1) The naturalist will start out by helping the students to make a list of the fruits and vegetables that they see in their homes, school or grocery stores.
2) After we have a sizable list of fruits of veggies from the students, the naturalist will add some other fruits, vegetables, foods, flowers and materials to the list.
3) When the list is complete, the naturalist will help students to learn about what pollinators pollinate which foods.
4) The naturalist will talk about some of our main foods and where they are produced in the world. This will be displayed by a pin on a map.
5) The naturalist will talk about each pollinator and where it lives and will place a pin on a map at that location.
6) The naturalist will hand out replicas of each food item and have baskets for each pollinator in the front of the room.
7) Students will than be asked to come forward with their food item and place it in the basket of the appropriate pollinator.

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