For families at home

Camp Fire
MINNESOTA

My nature connection

POLLINATION PROJECTS

GRADES: 2-6
TIME: 30-40 MIN

WHAT IS POLLINATION?

Pollination is the process that lets plants make new seeds and reproduce. Pollination relies heavily on animal pollinators and wind pollination. If you want to see pollination in action, visit the pollination garden at Camp Fire.

WHAT YOU'LL NEED

- Paper Plates
- Coloring Materials
- Tape
- Flour
- Salt and Pepper Shaker
- Powder Paint (optional)

INTRODUCTION

Pollen must make its way from the pollen-producing part of the plant, known as the *stamen*, to the pollen receiving part, known as the *pistil*, of another plant. Pollen needs help to make this journey from stamen to pistil.

That's where pollination comes into play. Pollen is moved from stamen to pistil of different plants either with the help of pollinators (animals that assist in pollination) or through the power of the wind.

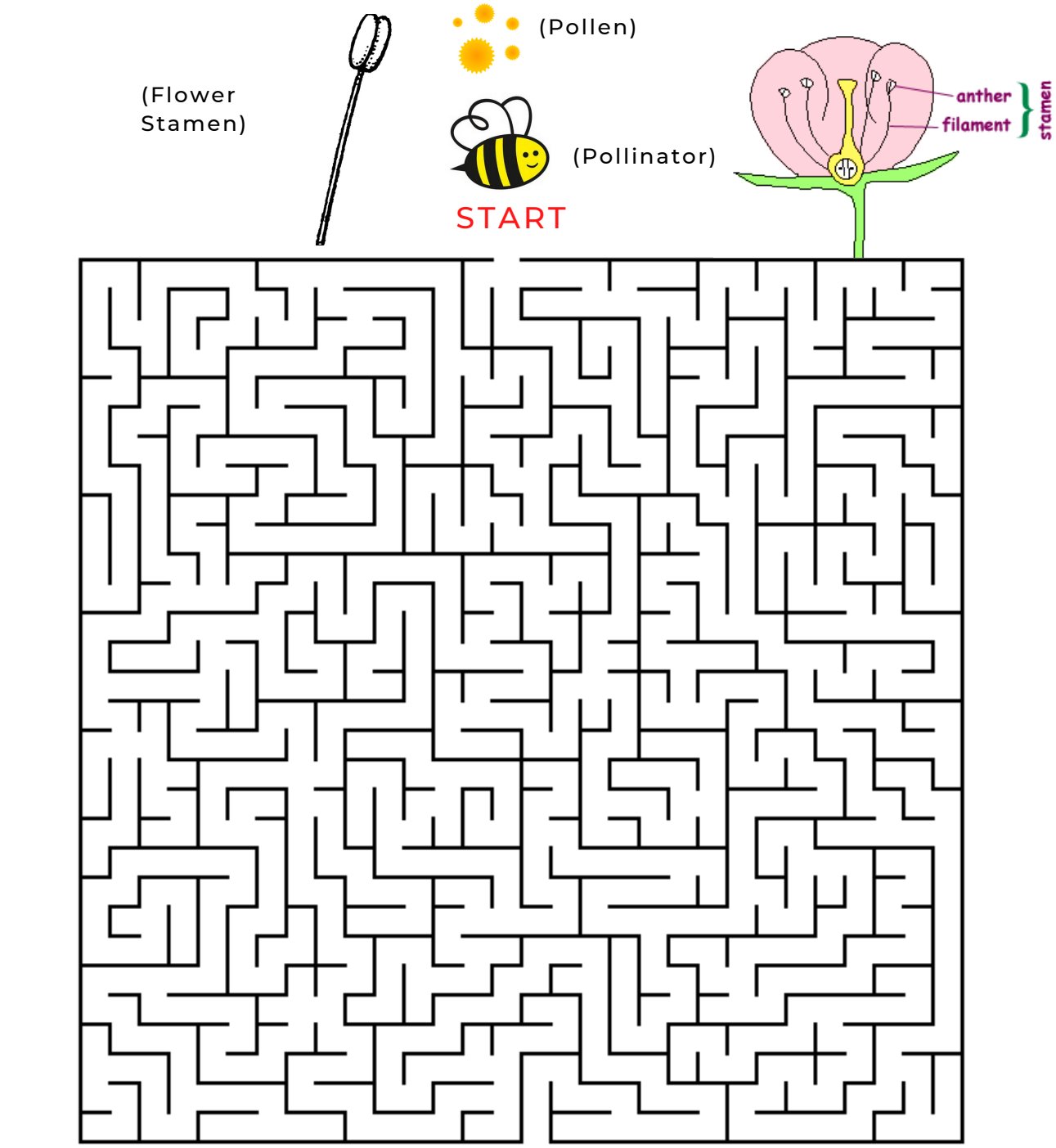
Students will:

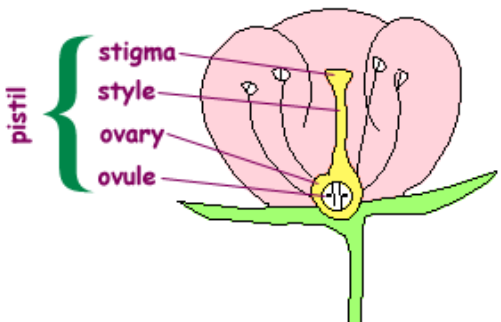
1. Understand the importance of pollination in plant reproduction
2. Learn the different ways in which pollination can occur
3. Create their own pollen-catching flowers

ACTIVITY 1: POLLINATOR MAZE

The most common pollinators are insects, like bees, butterflies, and even wasps. Pollinators visit flowers in order to collect their nectar for food. As a result of interacting with these flowers, pollen from the stamen gets stuck to their bodies. The pollen on their bodies is then transferred to the pistil of the next flower they visit, and pollination is achieved.

Help the bumblebee transport pollen from the stamen of one flower to the pistil of another by completing the maze below. (The solution to the maze is included on the last page of this lesson.)



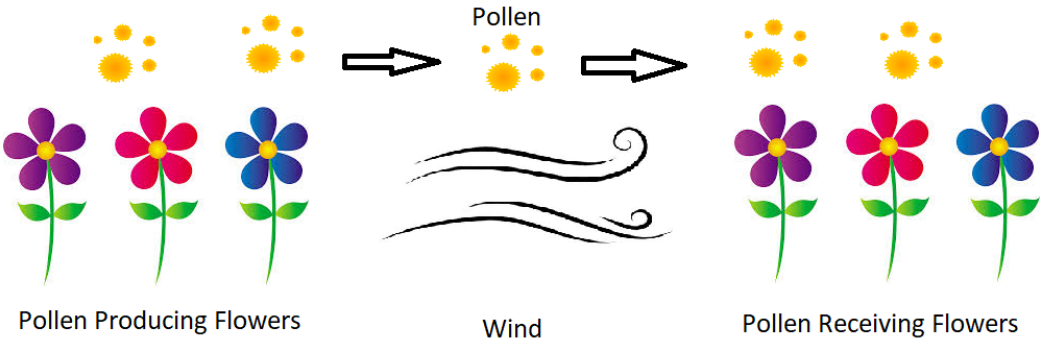


(Flower Pistil)

ACTIVITY 2: WIND POLLINATION

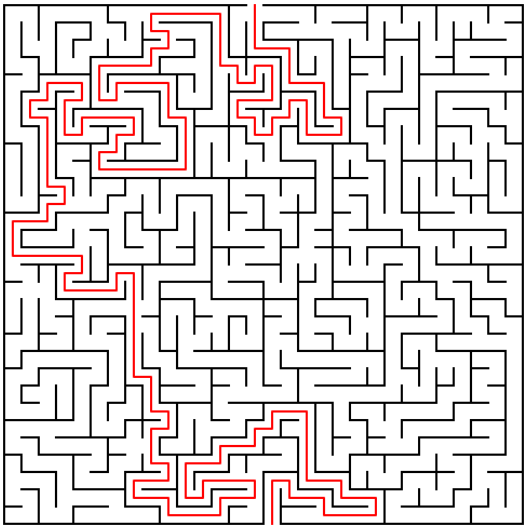
Pollination can also occur without the aid of animal pollinators. Wind pollination relies on the power of the wind to blow pollen from one plant to another (as seen in the diagram at the bottom of this page). This activity will allow you to experience wind pollination first hand.

- Invite youth to draw their favorite flower on a paper plate.
- Use double sided tape or tape loops to cover 5 different spots each flower (center, top, bottom, left, and right)
- Fill a salt and pepper shaker with flour (mix in powder paint for increased visibility). This represents the flowers that release their pollen into the wind. If you do not have a salt and pepper shaker available you can use your hands to disperse the flour.
- Gather your materials and find an open space outside to do the activity.
- An adult will hold the shaker; choose a spot in the area to stand. Explain to the youth that you represent a flower distributing pollen and that they will be playing the role of flowers trying to catch the pollen from the shaker. Have them choose spots in the space to stand with their flower plates.
- Once the youth have chosen their spots, explain that they must try to catch the pollen without moving their feet, just like flowers rooted in the soil.
- Have the adult shake the shaker so that the flour is sent into the air and an easily visible amount is dispersed.
- After the pollen is finished being dispersed, have the youth check how much they were able to catch on their flower.
- Repeat this experiment multiple times with the youth standing in different locations. What location catches the most pollen? What is the farthest distance away youth can stand and still catch pollen?
- Also allow for the members of your group to try out different roles.
- Be mindful of which way the breeze is blowing, and replace the tape on the flowers if needed.



CONNECTING WITH QUESTIONS

- Why is pollination important?
- During the wind pollination activity, did you catch the same amount of pollen in each spot you stood in?
- How does wind direction affect where wind-pollinated plants will grow?
- Why is it important to have animal pollinators like bumblebees?
- If every species of pollinator went extinct, what would happen to the plants that depended on them?



Pollinator Maze solution

RESOURCES

http://childreninnaturepei.ca/pollinationgamesandactivities

https://www.fs.fed.us/wildflowers/features/panels/WayneNFImportancePollinators.pdf