



The Pollinator Project - Earth Day Challenge

Week 1

Pillar: STEAM/Outdoor Experiences

Outcomes: Learns to identify and solve problems in her community

The Pollinator Project is a 3-week challenge to gear up for Earth Day! Girls like you can take the challenge to help pollinators and the environment in your local communities. The Pollinator Project - Earth Day Challenge is for Girl Scouts of all age levels. Through our Discover, Connect, Take Action framework, girls learn to be aware of their surroundings and scan their world for things they want to change; work together to plan that change and take action to make it happen. Becoming strong, confident leaders along the way.

The Pollinator Project – Earth Day Challenge - Week One – **Discover** the Who, What, When, Where and Why of Pollinators!

Start by Taking the Pledge!

I [insert name here] will commit to work to protect pollinators by: Discovering what they are and what they do. Connecting myself and those around me to the importance of protecting pollinators. Taking Action in my community to help pollinators. I will use my time to live everyday like it is Earth Day and make the world a better place!

Record yourself taking the pledge and tag our council on FB!! We want to see our Earth Day Champions!

Discover - Learn about what pollinators are, who they are, where we can find them, when we can see them, and why they are so important.

1. What are Pollinators? What do they do?

- a. **Pollinator** – A pollinator is an animal that moves pollen from plant to plant! Helping flowering plants multiply and create more plants across the earth!
- b. **Pollen** – Pollen is a fine powdery substance, typically yellow or orange, that exists in the center and on **anthers** of a flower. (Don't worry we will learn about the parts of the flower in a little bit.)
- c. **Pollen Activity** – Cheeto Pollination Experiment
 - i. To understand how Pollination works here is a fun snack and scientific experiment you can use and modify to your girl scout skill level!
 - ii. Materials: a bag of Cheetos or any Cheese Powdered snack, a picture or drawing of two flowers, and your fingers!
 - iii. Directions:
 1. Start by munching on your favorite bag of Cheetos. The Cheetos represent the pollen of a flower.
 2. Next observe your “pollen” covered finger. Your finger represents the “pollinator.”
 3. Finish it off the experiment by flying your finger to one or both of the other flowers that you have drawn or printed out. What do you observe!!
 4. Eureka!! You now understand how pollination works.

5. Take it to the next level! If you want to make your experiment more complex. (Recommended for Juniors and UP) learn about **Cross Pollination!** For this you will need to draw a different flower, and maybe have a couple different flavors of Cheetos.
 - a. [Watch this video to learn about Cross Pollination to learn more](#)
- iv. Check Out the [Full Cheeto Pollen Experiment Activity](#)

2. Who are Pollinators?

- a. Pollinators have a HUGE family across the globe! Here is a list of (Just a few) Pollinators
 - i. Bees – The most famous of all pollinators are Bees. A bee’s entire existence has evolved over time just to pollinate certain plants and flowers. Bees have specialized legs that carry pollen like little shovels. They are fuzzy little furballs that can generate their own static electricity.
 1. **Static Electricity Experiment**– Take a rubber balloon, fill it with air and rub it on your head. What happens to your hair? Fill a plate with salt and pepper and hover that same balloon overtop of the plate, what happens to the salt and pepper? This is exactly how a bee gathers pollen!
 - ii. Other Insects - Pollen wasps, flies, mosquitos, butterflies, moths and beetles.
 - iii. Vertebrates – Vertebrates are any animal with a spinal cord! You know that thing in your back? Vertebrate pollinators are mainly birds and bats. But there are also some types of monkeys, lemurs, possums, rodents, lizards and more!!
- b. ALL help plants reproduce by carrying pollen from one flower to another.
- c. Did any on this list surprise you? Which one surprised you the most?

3. When is it the best time to find and help pollinators? RIGHT NOW!!

4. Pollinator Project Challenge – Discover Week 1

- a. **For Daisies and Brownies**
 - i. Draw or color a picture of your favorite insect or animal from this list. Or find a coloring page of one! Look for some here [Look for some here](#).
 - ii. Find a cool coloring page to learn about the parts of a flower. [Check out this one here](#).
 - iii. **Pollinator Project Challenge** - Go for a walk with your family and see if you can count all of the pollinators and flowers you see! Is there a lot in your neighborhood? Could there be more? How do you think you can help pollinators? Don’t forget to bring a trash bag so you can help make space for pollinators by cleaning up your neighborhood or park!
- b. **For Juniors and Up**
 - i. Deep Dive with Dr. Mia, a Pollination Ecologist – Learn about these awesome relationships between bees and flowers in this video: Trading Food for Fertilizations - [click here](#).
 - ii. **Pollinator Project Challenge** - For One Week for 10-15min a day – Observe and Discover the world around you! Choose 1, 2 or all the options below
 1. Option 1 – Take a survey of pollinators and pollen creators in your neighborhood, park or backyard. Where do you find them? Just like the census counts people you are taking a census of the world around you. For an extra challenge try and identify the animals and insects you can see!
 2. Option 2 - Grab a notebook draw or write down all of the pollinators that you find around your neighborhood, park, or backyard. You don’t have to count them, simply observe what they are. Is it mostly birds? Insects or both?
 3. Option 3 – Combine and record. With the methods above create a nature journal of all the pollinators and pollen creators you see. Make it a collage of photos, pictures of magazines, it can be an digital journal, a notebook or pad. Use colored pencils, paint and more!



5. **Resources:**

- i. [Protect our Pollinators USDA](#)
 - ii. [Podcast – How to protect pollinators](#)
 - iii. [Things kids can do to Help Pollinators](#)
- Learn about how pollination works and the parts of a flower
 - [Flower Anatomy - Proflowers.com](#)
 - How pollination works – [The Cheeto Test](#)

When you're finished: Completing this 3 Week Challenge will help you on your way to earning the following petals, badges, and journey.

- Daisy
 - Petals: Considerate and Caring, Friendly and Helpful, Make the World a Better Place.
 - Badge: Eco Learner and Good Neighbor
- Brownie
 - Badge: Bugs
- Junior
 - Badge: Animal Habitats, Gardener Badge
- Cadette, Senior, Ambassador
 - Badge – Eco Trekker, Eco Explorer, and Eco Advocate

You can order your fun patch for \$1.00 each by emailing shopdept@gksmo.org.

