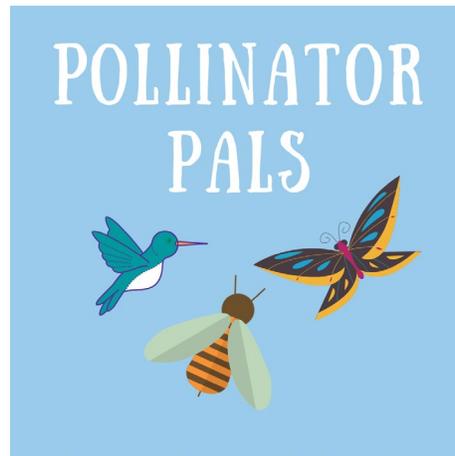




### Week 3



### Pollinator Pals

#### Challenge

Become a pollinator pal! What are some ways you can support pollinators in your neighborhood? From setting up a bee bath or hummingbird feeder, to creating artwork to educate your neighbors on the importance of pollinators, there are many ways you can support the power of pollination! Share your creations with us on Instagram or Facebook by using the hashtag #SOLACEchallenge and tagging @swanerpreserve. You can also send a photo of your completed challenge to [swanerecocenter@usu.edu](mailto:swanerecocenter@usu.edu)!

#### Kahoot

This week's Kahoot quiz explores pollinators. Our Kahoot quizzes require reading, and are targeted toward 3<sup>rd</sup>-5<sup>th</sup> graders, but younger youth should be able to complete them with the help of an adult or an older sibling. Kahoot quizzes are intended to test your child's knowledge, and to help them learn new information!

Kahoot is an online learning platform that allows educators to create quizzes, then engage with their students through their mobile device, tablet, or computer. Your child will need access to the internet for this activity. You can access the quiz [here](#) or download the [Kahoot app](#) then use the game pin 0816708.

#### Story Time

This week's story is Protect the Pollinators by Rachael Rose Zoller. Check out our recorded reading of this story [here](#)! Each week the story will be uploaded to YouTube to view anytime, anywhere.

This week's activities include:

- |                  |                                                           |
|------------------|-----------------------------------------------------------|
| Craft            | <a href="#">Pollinator Costumes</a>                       |
| Outdoor Activity | <a href="#">Is your Neighborhood Pollinator Friendly?</a> |
| Design Challenge | <a href="#">Build a Better Pollinator</a>                 |
| Outdoor Activity | <a href="#">Pollinator Observation</a>                    |



### **Craft: Pollinator Costumes**

Use your creativity to design and make a costume that helps you look like a pollinator.

### **Time Frame**

30 minutes – 1 hour

### **Materials**

- Different types of paper (newspaper, construction paper, wrapping paper, cardboard)
- Crayons or markers
- Recyclable materials (egg cartons, plastic containers, metal cans, etc.)
- Natural and found materials (leaves, pinecones, sticks, etc.)
- Scissors
- Glue

### **Procedure**

1. Brainstorm a list of different pollinators. We often only think of bees as pollinators, but bats, butterflies, beetles, and even geckos can be pollinators! The job of a pollinator is to move pollen from one plant to another, which helps plants to reproduce and create more plants!
2. Decide what kind of pollinator you'd like to dress up as! Once you decide on a pollinator, think about some of the defining characteristics of that pollinator. Below are some ideas:
  - a. Bees: distinct stripes, antennae, compound eyes
  - b. Butterflies: colorful wings, proboscis
  - c. Bats: fuzzy wings
  - d. Birds: pointy beaks, feathered wings
3. Get creative and use your available supplies to create a pollinator costume! You can try your hand at making wings, a mask, a headband, wristbands, or anything else you can imagine!

### **Guiding Questions**

- What are some pollinators that you've seen in our neighborhood before?
- What are some important characteristics of pollinators' bodies?
- What kind of pollinator would you like to dress up as? What materials can we use to create that costume?

### **Extended Learning**

- Create and put on a play about pollinators for your family.
- Wear your pollinator costume out on a nature walk and see how many different types of flowers and other resources for pollinators you can find!



## Outdoor Activity: Is Your Neighborhood Pollinator Friendly?

With pollinator populations on the decline, it's important to have habitats that are pollinator-friendly! Have you ever explored your own backyard and neighborhood to see if there are plants and flowers that would attract pollinators? It's time to get outside and find out!

### Time Frame

45 min – 1 hour

### Materials

- Blank sheet of paper
- Map of neighborhood
- [Checklist of pollinator habitat essentials](#)
- Pencil/Markers
- Clipboard or hardcover book

### Procedure

1. Before heading out for your assessment, create a map of the area you are surveying. Be creative with this! You can label street names and house numbers, or just draw squares and write down notes that will help you identify different areas.
2. Review what makes a habitat pollinator friendly by going over the checklist. This will make it easier to identify an area!
3. Create a rating system to assign to areas. Here are a few ideas for a rating system:
  - Color System - Create a rating system based on the colors of markers, crayons, or pens that you have on hand:
    - Red = area shows evidence of potential threats to pollinators
    - Yellow = area has some evidence of pollinator friendly plants, but could be improved
    - Green = area has many pollinator friendly plants and flowers
  - Number System - Create a rating system numerically:
    - 1 = area shows evidence of potential threats to pollinators
    - 2 = area has some evidence of pollinator friendly plants, but could be improved
    - 3 = area has many pollinator friendly plants and flowers
4. Grab your map, rating system and writing utensil, then head outside!
5. Closely observe the areas you're surveying, looking for pollinator habitat essentials (don't forget to refer to the checklist!)
6. Rate the different areas based on the rating system you created
7. Once you've completed your survey, reflect on your observations. Think about what surprised you most, what made you happy, and what you would change if you could.



8. Share your observations with others! This is a good opportunity to discuss how pollinator friendly your neighborhood is, and how it can improve.

### **Guiding Questions**

- What do you expect to see as you walk around the neighborhood?
- Do you think that most of the neighborhood is pollinator friendly? Why or why not?
- How are you going to create a map of the neighborhood? How much area do you want to survey?
- What kind of rating system are you going to use?
- How much time are you going to spend in each area that you're surveying?
- Do you plan to let neighbors know about your assessment?
- How can we as a household or neighborhood help with the declining population of pollinators?

### **Extended Learning**

- Have another family member, friend, or neighbor complete the assessment. Compare how you rated areas and discuss the similarities and/or differences.
- Select an area you'd like to improve. Brainstorms ways you can make the area more attractive to local pollinators.
- Create an educational resource to hand out to neighbors that highlights the assessment you completed.

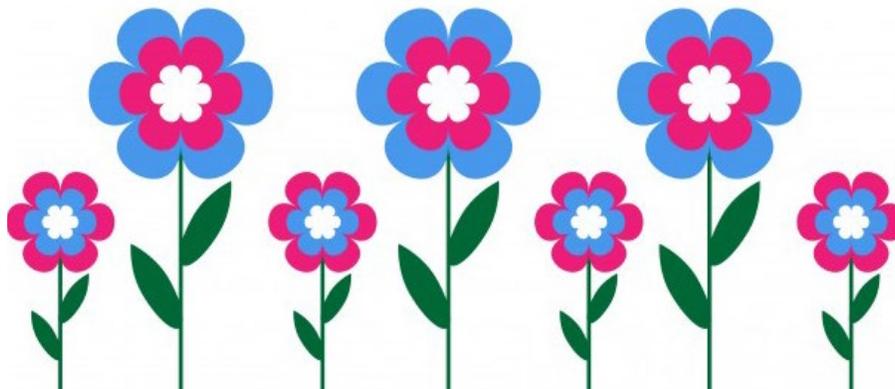


## What makes a habitat pollinator friendly?

Use this checklist while assessing a habitat. The more items you check off, the more attractive the habitat is to a variety of pollinators!

- Use of local native plants (check out this [great resource](#) from USU)
- Plants are a variety of colors
- Flowers are different shapes and sizes
- Plants have varying heights, growth habits, and flowering times
- Includes plants that provide food for larvae, as well as plants that provide nectar and pollen-producing flowers for pollinators

Notes:





### **Design Challenge: Build a Better Pollinator**

The most important job a pollinator has is carrying pollen from one plant to another, so new plants can grow. A few different structures help them to do this, including a hairy body, wings to travel quickly, and a long tongue or proboscis to collect nectar and pollen from plants. In this design challenge, you will create a pollinator that is well adapted for pollination!

#### **Time Frame**

30 minutes – 1 hour

#### **Materials**

- Recyclable materials (plastic containers, egg cartons, metal cans, etc.)
- Paper
- Pipe cleaners, yarn, googly eyes, or other craft supplies
- Natural materials (sticks, leaves, rocks, wood chips, etc.)
- Glue
- Scissors

#### **Procedure**

1. Ask
  - What kinds of animals are pollinators? What is the role of pollinators?
  - What are some important features or characteristics that pollinators have to help them move pollen? For ideas, check out [what makes a good pollinator](#).
2. Imagine
  - Think about what you'd like your pollinator to look like! Draw a picture and label its different features and their function, or talk through your ideas with someone else.
3. Create
  - Build your pollinator out of your available materials
  - Give your pollinator a name! Don't forget scientists give new animals and plants they discover both common and scientific names.
4. Explain
  - Once your pollinator is complete, tell someone about it! You can share with a sibling or adult at your house, or call someone on the phone or through video chat. Make sure to get adult permission before calling anyone.

#### **Guiding Questions**

- What kind of pollinator do you want to build? Do you want to base it off a pollinator that already exists or create a new one using your imagination?
- What does your pollinator eat? Are there specific flowers that it prefers?
- What features of your pollinator help it when they're looking for their food?



- What kind of habitat does your pollinator live in? Does it have any adaptations that help it survive there?
- What on your pollinator's body allows it to transport pollen? Does it have fur or hair? Does it have special sacks that fill with pollen? Something else?
- What is your pollinator's lifestyle like? Is it active during the day or night?
- How does your pollinator eat? Does it use a long sticky tongue, a proboscis, or something else? Does it perch on the plant while it eats, hover above it, or use its tail to hang upside down?

### **Extended Learning**

- Each type of pollinator prefers specific flowers when they're collecting food. Most pollinators rely on color, shape, and smell to tell if a flower is the right food source for them. Try drawing or designing a flower or plant that is your pollinator's preferred food source.



## Outdoor Activity: Pollinator Observation

Have you ever wondered what types of pollinators are in your backyard or neighborhood? Are you curious about which color of flower attracts the most pollinators? Questions and curiosities are a great starting point for an observation activity!

### Time Frame

Varies, depending on activity selected

### Materials

- [Observation sheet](#) (Resource from NAPPC)
- Pencil
- Supplies specific to your activity
- Magnifying glass (optional)

### Procedure

1. Brainstorm different questions you have about pollinators. Try to narrow down questions that can be easily implemented into an observation activity. Here are some of our ideas:
  - How many different pollinators visit this specific flower in my garden?
  - How sweet does nectar need to be for a pollinator to drink it?
  - What color of flower attracts bees the most?
  - Do different types of pollinators prefer different colored flowers?
  - What time of day do pollinators visit most often?
2. Create a plan of how you are going to implement your observation activity. Here are a few questions to think about:
  - What materials do I need to set up my activity?
  - How often will I check in?
  - How will I record my observations?
  - What do I predict is going to happen?
3. Set up your activity! This may include setting out different proportions of sugar water, selecting a patch of flowers to observe, etc.
4. Start making observations! If your activity needs to be completed over the course of a few days, make sure to complete your observations around the same time. Fill out the observation sheet at the end of this document or create your own!
5. After you have completed your activity, reflect on your observations:
  - How did the observation activity go overall?
  - Were you surprised by anything?
  - Were there any frustrating parts of the setup, process, outcomes?
  - How would you do it differently if you were to repeat the activity?
6. Share your observations with family and friends!



### **Guiding Questions**

- What do you wonder about pollinators?
- What do we already have at home that can help with your observation activity?
- How long do you want to engage in this observation activity? A day? Every day for a week?
- What will you record on your observation sheet?
- Do you have a hypothesis about what will happen?
- How will you share your findings with others?

### **Extended Learning**

- Try repeating your activity again! Is there anything you would change from the first time doing it?
- Create something (poster, chart, graph, etc.) that displays your findings. Present to a parent or sibling!



## Session I Nature's Partners: Pollinators and Plants Observation Sheet

Insect	Behavior (flying, crawling, drinking nectar, gathering pollen, # of visits, etc.)	Flower Name	Flower Shape (draw flower)	Flower Color	Flower Scent
Bee					
Butterfly					
Hummingbird					
Fly					
(Other)					



### Nature's Partners: Pollinators and Plants Observation Sheet

Name of Insect / Bird	Behavior flying, crawling, drinking nectar, gathering pollen, where they are on flower, time on flower, # of visits?	Flower Name	Flower Shape Draw / describe	Flower Colors	Flower Scent
_____					
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Nature's Partners: Pollinators, Plants, and You  
 North American Pollinator Protection Campaign [www.napcc.org](http://www.napcc.org)