2020 Critter-free Modification Why Won't Our Blueberries Grow?

2nd Grade Life Science Storyline to support the Insects kit

With critters no longer a part of ESD 112 STEM Kits, here are some modifications and additional fun activities to get our students learning outdoors about flowers and pollinators!



LESSON 4, SESSIONS 2-4: Milkweed bugs and butterflies as pollinators

Warm-up

Show students <u>the videos</u> of milkweed bugs and butterflies out in the garden using this slides presentation. Ask students to make observations about what they see.

Main activity

After showing students the videos in the slides presentation, ask students: What are the behaviors you are seeing? How might these behaviors help pollinate the plants? Or how might they help spread the seeds? If students listen carefully they will hear in the video that the milkweed bugs eat the seeds, but do not harm the rest of the plant. For the second video about butterflies, ask students, why are the butterflies moving from flower to flower? What body parts might help in transferring pollen? The diagram of the butterfly on the slides presentation can be used to help students identify the different structures and what they are used for.

Wrap-up/assessment

Provide students <u>with a template</u> to draw their observations and write a sentence about how they think the milkweed bugs or butterflies can pollinate plants.

Skip forward to Session 7 and then consider the below outdoor activities as further extensions. Then, return back to sessions 5 and 6 to have students talk about other important pollinators including nighttime pollinators (without actual moth observations).

Additional Field STEM activities:

How many types of flowers are there? The focus of the day is flowers! Have students take their Field STEM notebooks and go outside to study how many different types of flowers they can find! Have students 1) tally the number of flowers they are able to find and 2) draw as many sketches of different types of flowers as they can find.

Flower Dissection: What are the different parts of the flower and how does pollination happen? Challenge students to find and pick a flower from their play yard or school campus. If there are no flowers available in the school grounds, allow students to scavenge at home. Ask students to carefully use their hands or scissors (or a plastic knife) to dissect the flower and identify its different parts. Have students draw their ideas on this Parts of Flower Guide. Ask students, which parts of the flower look like they hold pollen? Which parts look like they receive pollen? Have students describe their thinking to a partner.

So many pollinators! Before going outside, ask students, "what does a pollinator do?" A pollinator is an organism that spreads pollen from one flower to another, helping plants to reproduce. Ask students, "what are some examples of pollinators and why do they hang out on plants?" Today, students will go outside on the search for different types of pollinators. How many different pollinators do they see? Have students tally the number of pollinators that they see and ask them to sketch the pollinators that they are able to take a long enough look at. Which flowers seem to be attracting the most pollinators?

Fun Bee/Pollinator Activities, which can be turned into STEM Stations.



WHY WON'T OUR BLUEBERRIES GROW?

Materials Needed

<u>Videos of milkweed bugs</u> and butterflies Milkweed bug observation

template

<u>Butterflies Observation</u> <u>template</u>