

BEE BOTS CHALLENGE | TEACHER GUIDE



Activity Overview:

Students will be creating a 'Pollinator Paradise' to give pollinators a space to access their resources without interference from people! As a class, you will decide on a safe location to place a paradise. A few students will then use the Change is Simple 'Pollinator Paradise' template to create a sign to put at the paradise. This will remind people to not interact with the paradise space. It is also recommended to use a rope to block off the area!

Prep Time: 10-15 minutes (to gather materials)

Activity Duration: 1 hour (poster design, lamination of poster, paradise location search)



STANDARDS ALIGNMENT

MA Comprehensive Health

- *PK.4.PF.1: Demonstrate developmentally appropriate locomotor movements (i.e., hop, gallop, jog, slide, skip, and run) and movement concepts (e.g., traveling in various pathways, showing differentiation of speed) in a variety of situations (e.g., incorporated in a dance or rhythm activity, applied during a game or activity).*
- *PK.7.CE.4: Encourage peers and family members to make choices to help protect the environment (e.g., recycling, using less water, turning off the lights).*

MATERIALS NEEDED

- *Coloring materials*
- *One 'Pollinator Paradise' poster (the whole class is not required to do the poster)*
- *A designated location for your 'Pollinator Paradise'*
- *Stick/stake to attach sign to*
- *Laminator (to laminate the poster when it's completed)*
- *Stakes (optional)*
- *Rope/ribbon (optional)*



BACKGROUND INFORMATION

Native pollinators, especially bees, face extreme competition from non-native pollinator species. In the US, native bee species have declined 23% in recent years. While native bee species are usually specially suited to pollinate a few types of plants, non-native bee species can pollinate any plants, which often means that native species do not get the chance to pollinate those plants. Non-native bee species are often introduced to agricultural areas to pollinate crops by farmers that are unaware of any consequential effects from this. Once they are introduced, it is usually out of our hands. Bees migrate and reproduce which can spread their populations uncontrollably. If native bee species had healthy and strong populations and humans made efforts to preserve their habitats, native bee species could pollinate crops just as well as non-native species. In North America, there are over 5,000 species of native bees, and 365 of them live in Massachusetts! Each bee species is specialized to pollinate a specific plant or plant group, which reduces competition and allows all of the species to coexist. For example, the squash bee is attracted to the yellow flowers of squash and pumpkins, while the carpenter bee is attracted to blue and purple flowers. As humans, we can help protect native pollinators by making bee friendly spaces. This includes planting local flowers and vegetation; not using chemical pesticides, fertilizers, and insecticides; and creating special bee baths. A bee bath can be any shallow dish of water with a place for bees to rest. Making a bee bath creates a safe space in your backyard for bees and other insects to land.

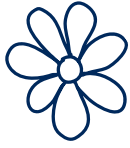
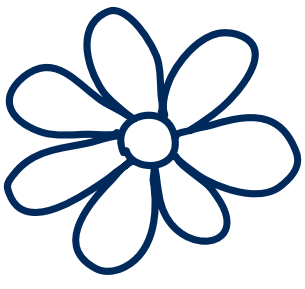
INSTRUCTIONS

1. Go over expectations with students about going outside to identify a 'Pollinator Paradise' location. It is recommended that this location is away from where students have recess or physical education activities!
2. Go on a walk with your students and pick a spot to make a 'Pollinator Paradise'.
3. Return to the classroom and have a group of students work on the 'Pollinator Paradise' poster. This should be eye-catching and neat!
4. *Teacher only:* Laminate the completed poster.
5. Attach the poster to a stake or stick so it can be put in the ground by the 'Pollinator Paradise'. If it is winter, feel free to hold onto the poster until it's warm enough to put outside!
6. *Optional:* Stake and rope off the area to prevent people from interacting with it!

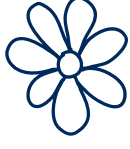




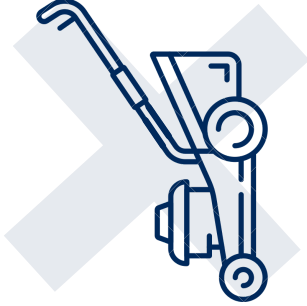
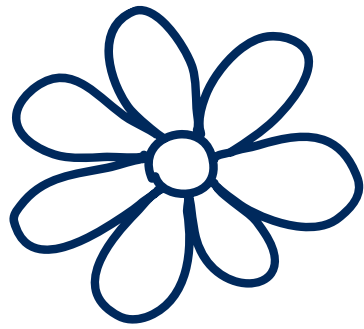
CHANGE IS SIMPLE®



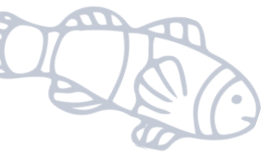
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POLLINATOR PARADISE



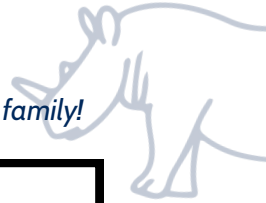
Please no mulching, mowing, or walking!



LESSON REFLECTION

BEE BOTS

Draw or write what you learned with Change is Simple today. Bring your work home to share with your family!



WHO IS CHANGE IS SIMPLE?

Change is Simple is a STEM + Sustainability education nonprofit. We work with your students throughout the year, providing, fun, engaging learning workshops that teach kids how to care for our planet.

Want to learn more? Sign up for our newsletter at <https://www.changeissimple.org/support!>

