



All About Bugs

Preschool Activities

QUICK FACTS

Bugs is a catch all term but they are classified in different ways:

- Insects have three body parts and six legs. (e.g. butterflies and bees)
- Arachnids have two body parts and eight legs. (e.g. spiders and scorpions)

True Bugs are insects that have piercing/sucking mouthparts and include aphids and butterflies.

In the garden we have good bugs and bad bugs or beneficials and pests.

Beneficial bugs include:

- Ladybugs who eat aphids. Aphids like to eat our garden plants.
- Butterflies and bees because they are pollinators.
- Woodlice a.k.a. Rollie pollies or pill bugs because they take heavy metal out of soils.
- Ants and worms because they aerate the soil.

Pests include:

- Stink bugs, an invasive species that will eat anything.
- Japanese beetles that look a lot like ladybugs but eat our plants.
- Aphids.

Vocabulary

- Pollinators
- Pests
- Beneficials
- Aphids
- Bug Body Parts: Abdomen, Thorax, Head, and Cephalothorax

BUG HABITATS

ACTIVITY 1: BUG HOTEL

Supplies

- Container
- Shredded Paper
- Papertowel/toilet paper rolls
- Pinecones
- Sticks
- Leaf litter

Quick Facts

- Carpenter bees, leafcutter bees, and mason bees are solitary bees.
- Mason bees are very effective pollinators and are very docile.

Directions

1. Have youths build a bug hotel as a model.
2. *Optional:* Build it for placing outside and have students assist with choosing its permanent location.

Tip: If you build one for actual use by bugs, the materials inside will need cleaned and replaced annually. If building for solitary bees, build the hotel 8 inches deep with a two inch overhang. Fill with wood blocks, bamboo, or other long, hollow cylinders.

Pre-activity:

Discuss why we want bugs in the garden.

Discuss what makes a good bug habitat which depends on the bug: some like it wet, some dry, but a lot of them want dry places to hibernate in the winter. They also want to hide from any predators.

ACTIVITY 2: BUG HABITAT MUSICAL CHAIRS

Supplies

- Chairs
- Music
- Habitat v. Predator Cards

Directions

1. Place one card on each chair. Place in such a way that students cannot see what is on the card.
2. Play like musical chairs except with enough chairs for everyone.
3. After the music stops and participants sit, have them flip their card and determine if they got a predator or a safe habitat. Students with predators are out of the game because they were “eaten.”

Tip: This also works as a simple flip the card game to see who “survives” and who “gets eaten.” Gives the opportunity to talk about why each of the habitats is good or which bugs a particular predator eats/how they eat them.

ACTIVITY 3: BUG EXPLORATION

Supplies

- Bug Hunt
- Plastic Bugs

Directions

1. Hide plastic bugs.
2. Have students “hunt” them like an entomologist. Encourage them to use tweezers and magnifying glasses.

Alternative: Have your youth “hunt” bugs in your yard and observe them from a safe distance. Have them journal by drawing the bugs they spot.

PHEROMONES (IN JMG)

Quick Facts

- Bugs communicate in different ways:
- Fireflies use flashes of light.
- Crickets use sound.
- Moths use odor.
- Some touch antennae and/or mouths.
- Bees use a dance.

Pheromones are chemicals, similar to smells, bugs can use to communicate to signal to other animals.

Technology Connection

Peacock Spiders Dancing

Bee Waggle Dance

Smithsonian Video: [youtube.com/watch?v=LU_KD1enR3Q](https://www.youtube.com/watch?v=LU_KD1enR3Q)

NativLang: NativLang: [youtube.com/watch?v=pb1lRI-YePU](https://www.youtube.com/watch?v=pb1lRI-YePU) (Language connection, good for older youths)

Music and Movement

Bee waggle dance: <https://www.youtube.com/watch?v=NVYh6RyzWLA>

Supplies

- Small plastic containers
- Cotton swabs
- Essential oils

Preparation

- Place 2-3 drops of essential oil on a cotton swab.
- Make at least 2 containers of each scent.

How to Play

- Have youths identify the smells.
- Have a single youth attempt to match the scents to one another. Use only 3-4 scents for this variation.