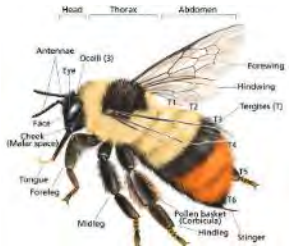
Build an Insect

Create a clay insect sculpture and discover insect anatomy!



Over 95% of the pollinating animals on Earth are insects. Many of them have developed traits that help with pollination, including long tongues, fuzzy bodies, or special hairs that form pollen 'baskets' on their hind legs.

Left: Bumble bee anatomy. Image: Laurel Mundy for NPS.

Materials Needed:

Air-dry clay*, pipe cleaners, popsicle stick, toothpicks, towel, water.
Optional: Other craft materials (foam, feathers, ribbon, etc), paint, markers.

*If air-dry clay is not available, you can use modeling clay or Play-Doh.

Instructions:

Step 1: Decide what kind of insect to build. Look at the pictures of pollinating insects on the next page for inspiration. How are they similar and different?

Step 2: Cover your work surface with a towel. Mold or carve the clay into an insect's three main body parts: head, thorax, and abdomen. Add details with a popsicle stick or toothpick.

Hint: To join two pieces of clay together, dip your finger in water and smooth out the spot where the two pieces meet.

Step 3: Make six legs from clay or pipe cleaners. Attach legs on each side of the body. All insects have six legs!

Step 4: Add eyes, a proboscis (mouth), antennae, and wings. You can make them from pipe cleaners or other craft materials.

Step 5: Let the clay dry for 24 to 48 hours.
Optional: Once the clay is dry, use markers or paint to color your insect!

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All About Pollinators

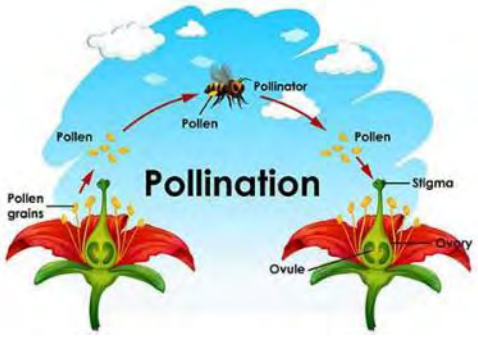

Image: wisconsinpollinators.com.

What is Pollination?

Pollination is the act of transferring pollen grains from the male anther of a flower to the female stigma. The fertilized flower later yields fruit and seeds. *Self-pollination* occurs when pollen from a plant's anther is transferred to the same plant's stigma. This is simple and quick, but reduces genetic diversity.

Cross-pollination occurs when pollen from a plant's anther is transferred to a different plant's stigma. This increases genetic diversity, but requires wind, water, or animals to move the pollen.

Who Pollinates?

Pollinators are animals who move pollen from flower to flower. They visit flowers to drink nectar or eat pollen, and end up transporting pollen grains as they move around. Bees, butterflies, flies, moths, beetles, wasps, birds, and bats are all pollinators. In Alaska, the most important pollinators are bees and flower flies.

Western bumble bee.
Image: Jukka Jantunen, iNaturalist.

Plants have developed many strategies for attracting pollinators, including flower shape, color, and scent. Some plants even have patterns visible in ultraviolet light, which help guide pollinators to the nectar. Similarly, pollinators have physical traits and behaviors that help with pollination. For example, bumble bees have fuzzy bodies that pollen can easily stick to, as well as special hairs that form pollen 'baskets' on their hind legs. Some bees can even grab onto the flower and move their flight muscles rapidly, shaking the pollen out of the flower!

Why is Pollination Important?

Pollination is important for a strong, healthy ecosystem. Nearly 90% of flowering plants rely on about 200,000 species of animal pollinators, and one in three bites of food you eat depends on pollinators. Food such as apples, almonds, oranges, cherries, blueberries, raspberries, tomatoes, peaches, grapes, coffee, and cacao all depend on pollinators!

Discover more about pollination and pollinators:

gardens.si.edu/gardens/pollinator-garden/