

**4-H at
HOME**



4-H Pollinator

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POLLINATORS ISSUE

The Ant

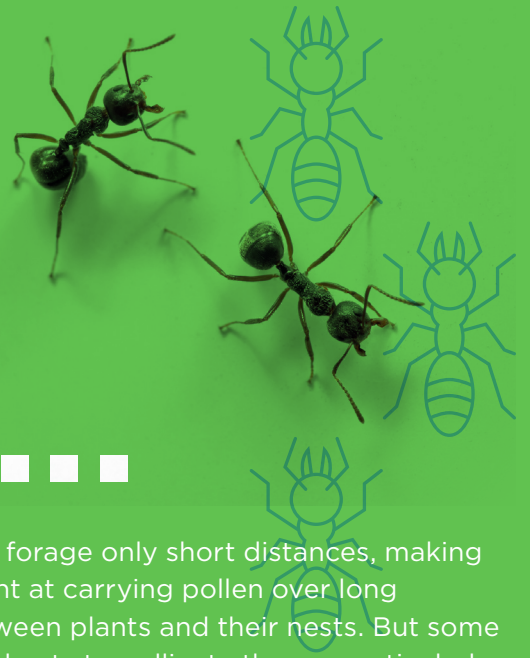


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THE ANTS GO MARCHING...



OVER 22,000 SPECIES

Get this: There are 1.5 million ants for every person on earth! Ants have been around since before the dinosaurs, and today they have colonized every continent in the world except Antarctica (it's too cold). Ants are successful because of their ability to adapt to their existing conditions and diverse habitats. There are about 22,000 species of ants worldwide (the ant family of species is called Formicidae), many of which are found in the earth's tropical rain forests!

ANTS ARE SCAVENGERS

Ants are omnivores, which means they eat both plants and animals. An ant's diet also includes meats, seeds, plants, and fungus. Really, they love to eat almost anything, but especially fruit, nectar and sugary items, including the flowers on fruits and vegetables. That's how they pollinate plants, going from one sweet flower to another. They also drink the dew that gathers on plants.

And ants are very social, working together to forage for food. It often takes many of them to bring back large pieces of plants, animals, and insects to eat and share. They leave a pheromone (smell) trail, to help them and other ants in their colony retrace their route back to the nectar or other food sources.

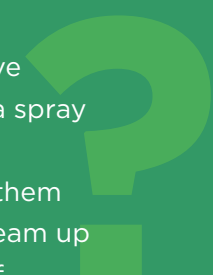
ARE ANTS GOOD POLLINATORS?

Unlike most pollinators, ants can't fly from plant to plant, since they lack wings (at least, most of them). That makes them more likely to take nectar without effectively cross-pollinating flowers.

They typically forage only short distances, making them inefficient at carrying pollen over long distances between plants and their nests. But some plants do need ants to pollinate them – particularly plants in harsh, dry lands, which seem to rely on ants because these are places where there may be few other pollinators available. These busy insects are often observed visiting inconspicuous, low-hanging flowers to collect the energy-rich nectar they crave by crawling into each flower to reach their reward.

DID YOU KNOW?

Black ants and wood ants have no sting, but they can squirt a spray of formic acid when they feel threatened. This can protect them from larger predators. Ants team up and work together to fend off intruders to their colony to protect the queen and babies. Some birds put ants in their feathers and under their wings, using the formic acid the ants produce to eliminate parasites.





TYPES OF ANTS

WHAT COMES IN A COLONY OF ANTS?

- 🍷 **Soldier ants** (females) for protection.
- 🍷 **Working forage ants** (females) to gather food. **Did you know?** A foraging group is called a RAID
- 🍷 **Nursery ants** (females) to care for the babies
- 🍷 **One sizable queen** per colony produces eggs day and night.
- 🍷 **Drones** (males), whose job it is to mate on the queen

Both the queen and the male drones rarely leave the nest area. When a queen ant dies, she isn't replaced and her colony generally dies out in a matter of months. Most varieties of ants do not have wings. When they do, only queens and males have wings. Ants are hostile to other ants, and colonies wage wars and take over other colonies - the losing colony become ants that work for and protect the winning colony.



Queen



Male



Normal-sized worker

Soldier

PARTS OF AN ANT

THE ABDOMEN:


Within the ant's abdomen are two stomachs. One stomach is used for personal energy/fuel storage, while the other one is used to carry food back to the anthill to share with other ants. The abdomen is located at the back end of the ant, and a blood tube and a nerve cord run from the ant's head all the way to the abdomen, in the rear.


THE THORAX:


This is where the ant's six legs attach. There are no lungs in the thorax, because ants don't have lungs - they breathe through tiny holes all over their bodies.

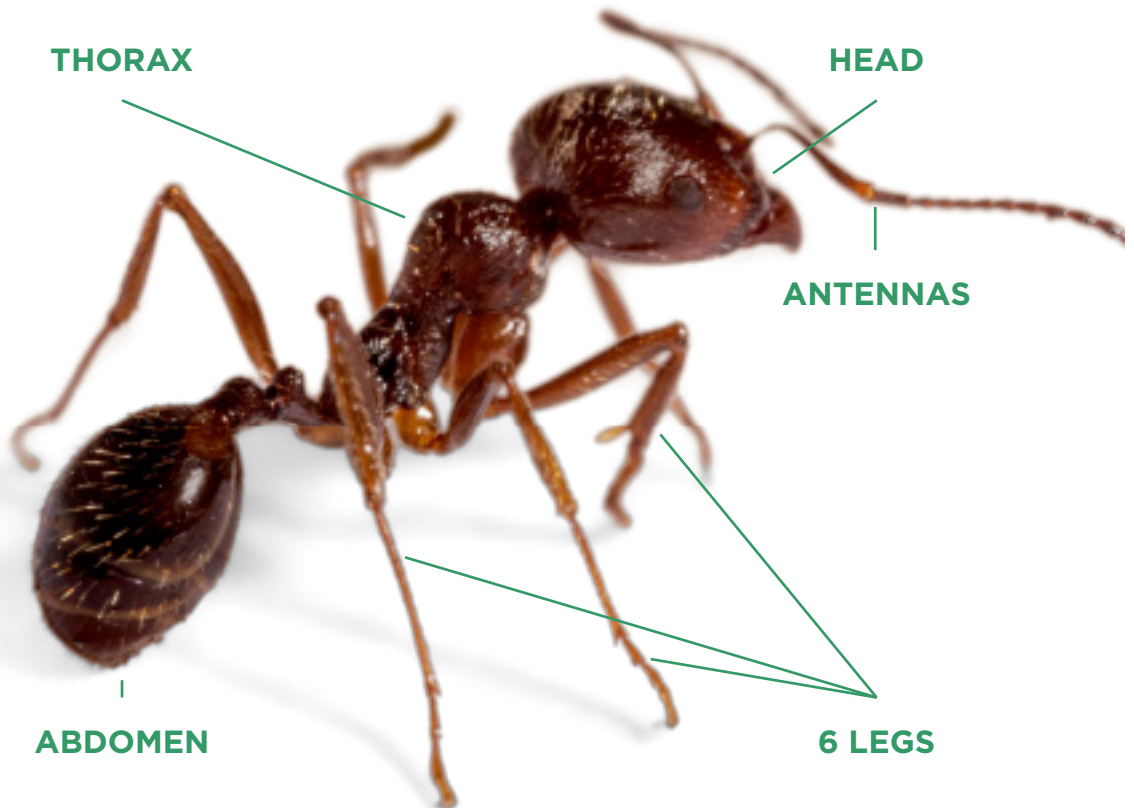
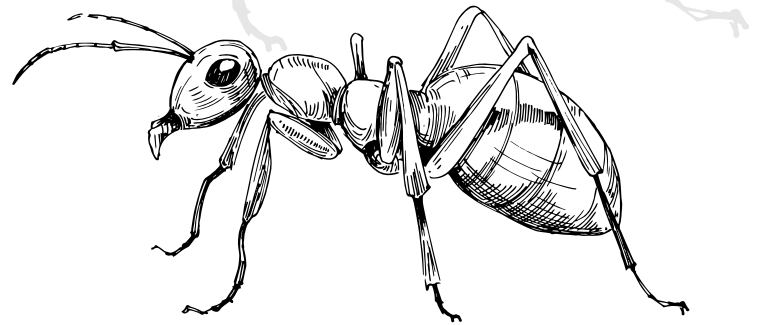
THE HEAD:

The head has three key elements that help ants thrive in any environment.

 **The mandibles:** A pair of strong jaws used to crush food and bite, that open and close almost like scissors

 **Their eyes:** Ant eyes have many lenses, which enables them to see very well.

 **Two antennae:** These are used to smell, touch, taste, and hear. This is how ants communicate, by touching each other with their antennae (antennae is the plural of antenna).



FUN FACTS

THE LIFE CYCLE

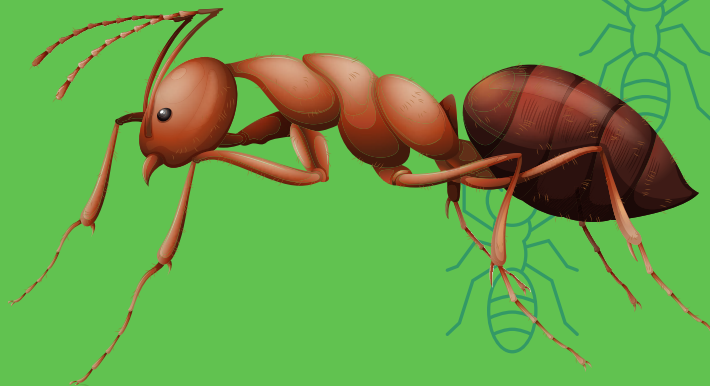
When the queen lays a fertilized egg, the life cycle starts. The egg will turn into larva, then it spins silk to create a cocoon, or pupa, which eventually turns into a white, transparent-looking ant at birth. Ants live about 60 days, except for the queen ant, who can live up to 20 years!

ANT HILLS

What you see as ant hills, the mounds of dirt rising a few inches out of the ground, are the front doors of ant colonies filled with thousands to millions of other ants. These communities go deep into the ground. The ant hill serves as the opening to a maze of tunnels beneath the surface and is the only part of the colony that shows above ground.

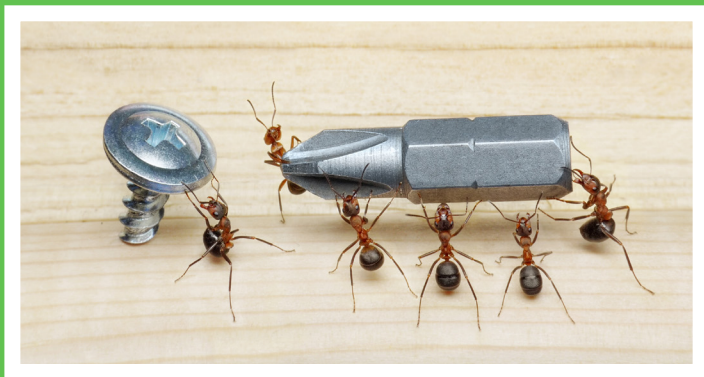
ANTS HAVE DUTIES

Ants never sleep! They spend all of their time caring for their home, newborns and their queen. They build tunnels and gardens of fungus, for food. Ant culture requires that they work together to accomplish their work.



SUPERHEROES

Ants are the superheroes insect world, because their strong muscles and bodies allow them to lift objects that are 20 to 100 times their own body weight. That's like a person lifting a car up over their head. Pretty impressive!



MAKE YOUR OWN

Clothespin Ant



ABOUT THE ACTIVITY

Using pipe cleaners, glue and a clothespin, you'll make a fun craft ant and learn about the role they play in pollination.

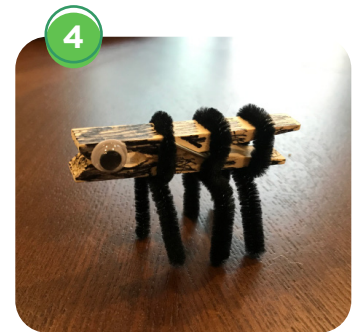
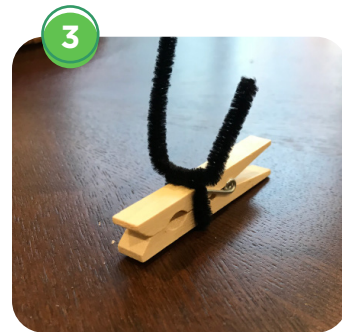
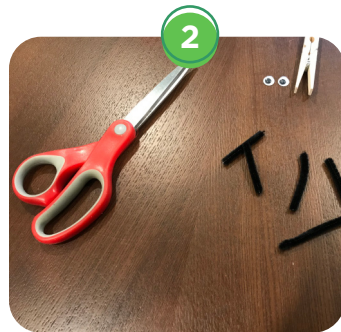
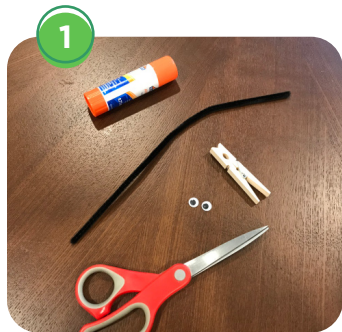
Follow these simple steps to create your ant.

Before you start the activity, think about this amazing fact: Ants have been around longer than the dinosaurs. There are lots of different kinds of ants: 22,000 different species, with many living in the rain forests.

Like butterflies, ants go through three life cycles: larva, cocoon or pupa, and then they become an ant.

MATERIALS

- Mini clothespin
- Pipe cleaner of the same color cut into six equal pieces, 2 inches each
- 2 googly eyes
- Glue
- Black marker
- Disposable table covering



STEP 1:

Glue all six legs onto the clothespin (three on each side), starting around the hinge and going to the rear. Leave room at the front for the ant's head.

Did You Know?

Ants aren't as good of pollinators as butterflies and bees because they can't fly from flower to flower (though some types of ants have wings). But they still love nectar.

- Ants have five main body parts: abdomen, thorax, head, antennae, and legs, of which they have six.
- The thorax is where the ant's six legs attach.
- The ant's abdomen is at its back end.

Did you know an ant has two stomachs in its abdomen? One for energy and fuel for itself, and one to store food for other ants.

- Ants have two antennae. The antennae help them smell, touch, taste and hear. To communicate with each other, ants touch their antennae together.

STEP 2:

Allow to dry. Then glue the googly eyes on the front sides.

Did You Know?

In addition to nectar, ants eat plants and animals, too, meaning that they are omnivores. Like you, ants drink water, seeds and meats. But they also eat fungus. Eww!

STEP 3:

If the legs won't stick by gluing them, cut 3 four-inch strips of the pipe cleaners, and wrap them around the clothespin, twisting them underneath, then bending the legs downward. And if your clothespin isn't a dark color, like an ant, use a marker to color it - you can use black or red, if you want a red ant!

STEP 4:

Enjoy your Ant!

Did You Know?

Ants can lift 20 times to 100 times their own bodyweight. That would be like you lifting a car!

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FIRE ANTS

FIRE ANTS ON WATER

When heavy rain comes or they encounter a large puddle, fire ants can create floating rafts by linking their legs together. So when their home is flooded they are able not just to survive, but to continue to move around and work!

FIRE ANTS

Many people stay far back when they see fire ants – and for good reason. Red ants, or fire ants, are known for being aggressive and having quite a bite. Their bite can be itchy and painful, though otherwise these ants are mostly harmless to humans. That’s not the case for fellow insects – those same bites can be deadly to prey, as they sting them with a toxic venom called Solenopsin. There are over 200 species of these red ants, living all around the world.



Sources: <http://antsandtheplanet.blogspot.com/2012/03/>, <https://www.pestwiki.com/ants-facts/>

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