



## AMAZING ANIMAL ARCHITECTURE: ANT COLONIES

Build an ant farm to observe colonies in real-time.

### Materials

- Plastic 2-liter bottle
- Sheet of construction paper
- Scissors
- Rubber bands
- Several cups of sand or fine dirt
- A scoop or spoon
- Cotton ball or paper towel
- A teaspoon of syrup
- A small plastic container
- Pantyhose or similar material

*Ants communicate by leaving chemical scent trails for other ants to follow and by rubbing their antennae against each other. Through their antennae, ants can smell, taste, touch, and hear.*



### Procedure

- With the help of a grownup, cut the top off of the 2-liter bottle.
- Roll the sheet of construction paper long-wise into a tube that is about 3 inches in diameter and place tube inside the bottle. There should be about ½ to 1 inch of space between the bottle and the paper tube.
- Holding the tube upright with your fingers, scoop sand into the bottle around the tube. Fill the bottle until you reach the top of the paper tube. Place a wet cotton ball and piece of fruit on top of the sand and place bottle aside until later.
- Place a drop of syrup into the small plastic container and set it outside. You may have to wait a few hours for it to attract some ants, you can also move your trap around to find whatever spot is best for you.
- Once you have caught some ants, bring your bottle outside and carefully drop your ants inside. Cover the top by stretching the pantyhose over it and securing it with the rubber band. Be sure to replace the wet cotton ball every few days and add new fruits and vegetables for them to eat.

### Results

It may take a few days, but soon you will see your ants tunneling down the sides.

### Why?

Ants live in a large group called a “colony,” which is started by a single queen ant that gives birth to all the worker ants. The worker ants create tunnels with “rooms” to store food, raise larva (baby ants), and rest in. Some colonies have millions of ants working together to create these tunnels, which can reach more than 15 feet deep into the ground. Ants are excellent architects—they can build their homes in all sorts of places. Many dig underground nests or build mounds, others make nests in trees, under rocks, or with leaves. Ant nests are designed to be perfect nurseries for eggs and larva. Some nests even have a system to circulate fresh air.