

# **GET T** KNOШ

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**GRAB N' GO ACTIVITY:** 

Lost Ants

## **OVERVIEW**

Ants, like spiders, rodents, and humans, keep track of where they are, where they're going, and how to get there. They remember the turns they take, as well as the uphills and downhills, as they cross an area.

#### **MATERIALS:**

- Ant bait: a jar lid with sugar water, maple syrup, honey, or jam
- An obstruction: an object to block the path of the ants. Try a book, pieces of wood, or a stack of building blocks. (Your purpose is to see if ants can find their way after meeting your obstruction, not to keep them from going over it.)
- A stopwatch or a watch with a second hand
- A ruler

## **PROCEDURE:**

- Step 1. Find ants. In cool or warm weather, you should be able to find ants in the wild and do the experiment where they are. You don't need to capture them. Just follow them and figure out where they're going. Determine their starting point (probably the anthill) and their destination (probably a food source).
- Step 2. Set the bait. Note what the ants do. Do they approach the bait, investigate it, and go away to find the other ants and let them know? This is the pattern that ants usually follow. Try to observe it. Follow the ants that go away, and find out what they do.

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to find more free resources and activities

MORE RESOURCES: http://kids.nationalgeographic.com/kids/ activities/funscience/ants-science-experiment/ **Ages:** 3 - 8 **Time:** 20 - 30 minutes

- Step 3. Watch your ants closely. Take pictures or video to add to your data. Then find the anthill. You will want to map this area, so take careful measurements. You might consider drawing a chalk line behind an ant to trace its path back and forth from the anthill to the bait.
- Step 4. Once your ants have oriented themselves and have created a path to the bait, see if you can time one ant in its unobstructed path from anthill to bait.
- Step 5. Clock their movements. You have drawn ants to your bait, and these ants have taken the information about your bait's location back to their anthill and left a scent trail for their colony to follow. Now put up your obstruction. Observe what the ants do. Again, try to trace the path of one ant, and time it to see how long it takes for it to go from the anthill to the food source. Time how long it takes for the ant to cross the obstruction.
- Step 6. Analyze the ants. Carefully note what they do when they reach the ground again after crossing the obstruction. Do they seem confused? Do they go the wrong way? How long does it take them to figure out the right way? Do your ants eventually learn the new path over the obstruction?

Step 7. Now, remove the obstruction. Carefully note what happens!