

## Finding Out . . .

### About Ants

1. Get a large, wide-mouthed jar; an unopened can (large enough to leave one and one-half inches between it and the sides of the jar); some soil; bread crumbs, jelly, or sugar; a small sponge; a swatch of loosely woven cloth; black construction paper; a large rubber band; and some ants.
2. Put the sealed can inside the jar and fill the space left with soil to within one inch of the top. Place the food and the sponge dampened with water on top of the soil. Put in the ants. Cover the jar with the loosely woven cloth and secure with a rubber band.
3. When not observing the ants, cover the outside of the jar with black construction paper. Try giving the ants different kinds of foods. Record your observations over a period of a week.





Another hard-working insect is the ant. Even the Bible commends their industry. Ants look something like bees, although rarely do any but queen ants and the males have wings. The ants have distinct body segments: head, thorax, and abdomen. Many ants have no "stingers," but their powerful jaws can deliver a bite that may feel like a sting.

Like bees, ants divide up the work in their colonies. The leafcutter ants, for example, have jobs according to the size of the worker. The largest leafcutter ant is the queen. Her job is to dig the first tunnel, lay the eggs, and begin a colony. Next in size are the soldier ants, big-headed, sharp-jawed insects that can kill enemy insects ten times their size. They guard the queen and the colony. Smaller ants, the workers, give the whole group its name; they are the ones that actually cut leaves. This group goes out into an Amazon forest in long lines sometimes twelve-ants wide. They cut up leaves and carry the pieces home. From a distance these streams of ants, going and coming between forest and nest, look like little conveyor belts in a very busy factory.

To do the same amount of work as a leafcutter, a man would have to run ten miles in forty minutes—carrying an 800-pound weight over his head. And he would have to do that at least seven times a day.

Back at the colony, smaller ants carry the pieces of leaf down the many tunnels and give them to the smallest ants of all. These tiny insects—about the size of an eye in a regular sewing needle—chew up the leaves and use them to grow a fungus. All the ants in the colony eat this fungus and nothing else. Since a colony can contain as many as four million ants, it is important that each ant do its job in this process of growing food.



Some ants are like little dairy farmers. They keep and feed their “cows,” the aphids. When stroked by the ants’ feelers, the aphids give a sweet liquid. The ants need this “milk” and seem to do “chores” to get it.

*“Go to the ant, thou sluggard; consider her ways, and be wise: Which having no guide, overseer, or ruler, Provideth her meat in the summer, and gathereth her food in the harvest.”*

*Proverbs 6:6-8*

### **The Flea Group**

The fleas have a group name, *Siphonaptera*, that means “siphon without wings.” What can you guess about the flea’s mouth? What can you guess about how the flea gets around?

Fleas have sucking tubes for eating and legs designed for leaping. One kind of flea can jump thirteen inches in one jump. You probably think fleas are the pests on dogs. But fleas feast on many hosts, including people. And they hop from one host to another at any opportunity.

Although the flea is a small animal, it has carried death to millions. In the 900s, fleas from sick rats spread a plague known as the Black Death throughout Asia and Europe. The plague wiped out one-fourth of the population of Europe. In the late 1800s, another pandemic began when ships from Hong Kong traveled to many ports around the world with diseased rats aboard. In India alone, 10,000,000 people died within twenty years.

