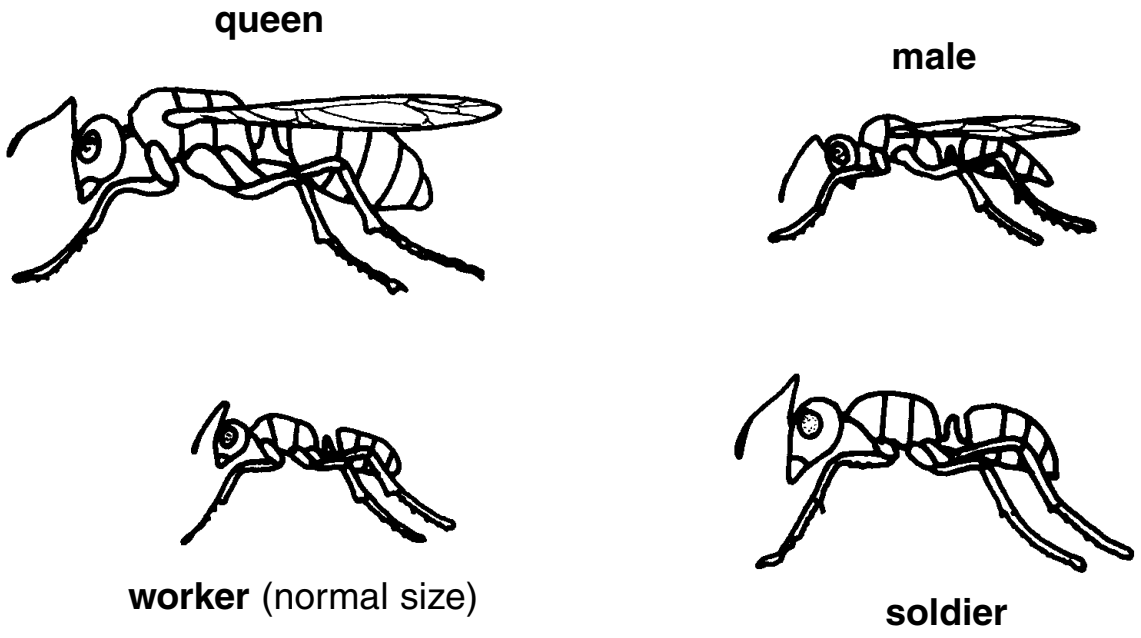
Ants

Teacher Information

There are over 2,500 species of ants, all social animals which live and work together in colonies. They are the most familiar of insects and have often been compared to human societies. Each ant in a colony has specific duties. A single *queen* ant reproduces all of the colony's members. She may live as long as 20 years. The *male* ant is responsible for mating with the queen. This occurs outside the colony when the queen and males develop wings. After mating, the males die and the queen tears off her wings and returns to her nest as an additional queen or begins her own nest. The *soldier* ants are responsible for protecting the members of the colony. The *worker* ants are all female and are responsible for the maintenance of the colony. Their jobs may range from husking seeds and carrying out dirt to digging new tunnels and feeding the larvae. An ant colony consists of many (sometimes millions) of ants working cooperatively to form a single society.

Carpenter Ants in a Colony



Ants *(cont.)*

Ants in the Wild

Overview: *Students observe and collect data about ants in the wild.*

Materials

- 3" x 5" (8 cm x 13 cm) file cards
- Observing Ants in the Wild Data Sheet (page 17)
- *optional:* magnifier for each student

Lesson Preparation

- Find a source of wild ants near school for students to observe. Watch how they behave and try the various experiments which will be conducted with the students in this lesson.
- During observations of the ants, you may consider having students use a piece of newspaper to sit on. This will help those somewhat frightened by insects to feel more secure than just sitting on the ground.
- Consider taking photographs of all students observing ants during this study. The photos can be included in the book they will be making of their data sheets.

Activity

1. Distribute a file card to each student and have each draw an ant from memory. It should be as large as the file card to show details. Tell students they will study ants for many weeks, beginning by watching ants near school to see how they behave.
2. Take the students to an area near school to observe ants in the wild. Have them watch ants moving, asking them to describe the movement. (*Usually ants move in a line, following a scent trail laid down by the earlier ants*.)
3. Conduct some simple experiments with the ants so students can see how they react.
   - Draw a line through the line of ants so students can see how the ants react. (*The ants will become disoriented for a while but then find their way again*.) Let them watch to see how the ants reestablish the new trail. Ask students to think what method the ants might have used to find their path again.
   - Place an obstacle (e.g., pebble) in the line of ants so students can watch and discuss their reaction. (*They may go around it or climb over it*.) See if they can guess why the ants behave in the manner they do.
   - Put food (pieces of meat, candy, seeds, sugar cereal) in the ants' path and observe how they react. If they carry off the food, point out how much larger the pieces are than the ants. Have students notice that ants use their mouths to hold the food.
   - Let the students think of ways to study the ants and carry out their experiments.
4. Follow the ants' trail to find where it begins and ends.

Closure

- Return to the classroom and group the students. Distribute the data sheets to the students and have them write illustrated stories about their observations of ants in the wild.
- Collect the drawings to keep for an ant book students will assemble at the end of their study.

Ants *(cont.)*

Observing Ants in the Wild Data Sheet

To the Student: Draw pictures about six different things you learned as you watched the ants in the wild. Write a sentence about the picture in each of the boxes below your picture.

1 _____ _____	**2** _____ _____
3 _____ _____	**4** _____ _____
5 _____ _____	**6** _____ _____