

INSECT COMMUNICATION

Ask students to hypothesize how insects communicate. Do they communicate like humans? After responses have been given, explain to the students the various ways that insects communicate. Some insects communicate by producing sounds while other insects emit light to communicate. Many insects rely on body color and other use chemical odors to communicate. These chemical odors, called PHEROMONES, are used by insects to find mates, to warn other insects about danger, and to mark trails that can be followed by other insects. This inquiry will explore how termites communicate.

Inquiry 1 - The Nose Knows

1. Randomly rub one of the four scents on each student's arm using a cotton ball.
2. Ask the students to find others that have the same scent. This activity requires the students to use their sense of smell.
3. Once the students have identified those having the same scent. Explain to them that this is how insect communicate to find mates, to warn other insects about danger, and to mark trails that can be followed by other insects.

Inquiry 2 - Termite Experiment

Ask the students what they know about termites - important points:

- termites are an important part of the community of decomposers - they help break down and recycle dead wood and plants
- termites become important economic pests when their appetite for wood and wood products extend to our homes, building materials, and forests.

Let's learn about how termites use pheromones to communicate. Conduct termite experiment (refer to PowerPoint Presentation). Explain to the children that chemicals reside in the ink of the PaperMate pens that mimic the termite's pheromones. Show the students that color does not make a difference - the workers are blind. Also demonstrate that termites will not follow lines draw by pencils, other types of pens, or markers - their ink composition does not mimic the termite's pheromones.