

Termite NASCAR™

Like ants, termites use trail-marking chemicals (pheromones) to communicate. A common pen available in stores has a chemical called 2-phenoxyethanol in it that is an analog (a close copy) of the termites' natural trail marking chemical. Your objective is to determine which pen it is.

Divide into groups. Each group will have sheets of plain, white paper, a blue Papermate® pen, a fine tip Sharpie®, a black ink pen, a blue ink pen and a red ink pen. Make a circle on the paper using one of the pens. Place termites in the center of the circle and observe. Record the results of the exercise. You can also change the shape of your lines. Try other designs. Discuss among yourselves the possible reasons for the results.

Each group will have:

1. plain, white paper,
2. different writing utensils

Take each pen and draw a 3-6 inch diameter circle on the paper.

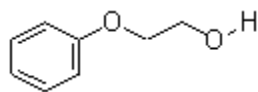
Place termites in the center of each circle. Your professor will do this. Observe the termites' behavior.

What do the termites do when they encounter the circle drawn by:

1. a blue Papermate® pen, _____
2. a fine tip Sharpie®, _____
3. a black ink pen, _____
4. a blue ink pen _____
5. a red ink pen _____

Based on your observations determine which pen has the termite trail marking chemical in it?

How do you know that termites are not responding to just the color of the pen?



2-phenoxyethanol is a chemical found in the Papermate pen.