

Thinking Like a Scientist

SEEKING SOLUTIONS SCENARIOS

READ THROUGH THE OBSERVATIONS BELOW AND CHOOSE ONE SCENARIO THAT INTERESTS YOU. BRAINSTORM EXPLANATIONS FOR THE OBSERVATIONS AND USE THE EXPLANATIONS TO FORM SEVERAL POSSIBLE HYPOTHESES. THEN DEVELOP ONE OR MORE EXPERIMENTS TO TEST YOUR HYPOTHESES.

Scenario 1

You have often noticed that ants follow one another in a trail to food. How do they know to follow each other in the trail? Do they have a form of communication that we can't hear or see? Or do they follow the trail because they see other ants following the trail?

Make several hypotheses that could explain why ants follow one another in a trail to food. Then design an experiment to test one of your hypotheses. What results would you observe if your hypothesis is true? What results would you observe if your hypothesis is false? List the independent and dependent variables on your experiment(s).