

Step 4: Designing Experiments

Directions: Analyze the diagrams, and then answer the questions.

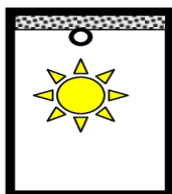


Figure 1

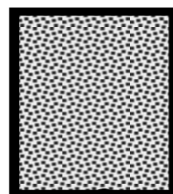
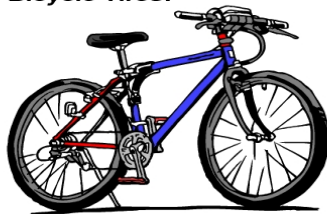


Figure 2

1. What is different between the group in figure 1 and the group in figure 2?
2. What is the responding variable in the above experiment?
3. Name two variables that would have to be held constant in this experiment and explain why.
4. Write a hypothesis for the above experiment.
5. Which figure represents the control in the above experiment? Why?
6. Extra Credit: In graphing this problem what would be on the "X" axis?

Bicycle Tires:



After many observations, you notice that your bicycle tires (and/or basketball) always look flatter on colder days or during the winter, than they do on warmer days or during the summer. You decide to use the scientific method.

What is the problem or question confronting you?

Background information: what happens to the bounce of a basketball when you leave it outside in the winter?