

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## ***SCIENTIFIC METHOD EXAMPLE***

### **STEPS IN THE SCIENTIFIC METHOD:**

1. Does sitting out in the sun cause a person to get a tan?
2. If a person sits out in the sun, then that person will get a tan.
3. Do an experiment:  
Send 10 people onto the beach for 10 hours without sunscreen.  
Send 10 other people into a basement for 10 hours without sunscreen.
4. In the sun, 9 out of 10 people got a bad sunburn.  
In the basement, 0 out of 10 people got a bad sunburn.
5. The hypothesis is correct. Sitting out in the sun causes a person to get a tan.
6. Another scientist will follow this procedure in order to replicate the results.

### **EXPERIMENTAL DESIGN COMPONENTS:**

1 independent variable: location (beach/basement)

dependent variable(s): number of people who got a bad sunburn

constants: 10 hours  
10 people  
no sunscreen  
same skin types in each group

control group: 10 people in the basement

experimental group: 10 people on the beach