

**Experimental Design Worksheet  
Scientific Method**

**Definitions: Define the following words and concepts related to the scientific method.**

1. Hypothesis: \_\_\_\_\_
2. Independent Variable: \_\_\_\_\_
3. Dependent Variable: \_\_\_\_\_
4. Control Group: \_\_\_\_\_
5. Experimental Groups: \_\_\_\_\_
6. Constants: \_\_\_\_\_
7. Trials: \_\_\_\_\_
8. Variables (use a dictionary if necessary): \_\_\_\_\_

**Practice: Write a hypothesis for each of the statements and identify the variables, control group, and experimental group.**

**1. Cigarette smoking increases the risk of lung cancer.**

Hypothesis: If \_\_\_\_\_, then \_\_\_\_\_

Independent Variable: \_\_\_\_\_      Dependent Variable: \_\_\_\_\_

Control Group: \_\_\_\_\_      Experimental Group: \_\_\_\_\_

**2. Eating breakfast increases performance in school.**

Hypothesis: If \_\_\_\_\_, then \_\_\_\_\_

Independent Variable: \_\_\_\_\_      Dependent Variable: \_\_\_\_\_

Control Group: \_\_\_\_\_      Experimental Group: \_\_\_\_\_

**3. Hummingbirds are attracted to the color red.**

Hypothesis: If \_\_\_\_\_, then \_\_\_\_\_

Independent Variable: \_\_\_\_\_      Dependent Variable: \_\_\_\_\_

Control Group: \_\_\_\_\_      Experimental Group: \_\_\_\_\_