

**Controlled Experiment Practice**

Name \_\_\_\_\_

Date \_\_\_\_\_ Hour \_\_\_\_\_

Question: Does chewing gum cause cavities?

Hypothesis: Chewing gum causes cavities.

Experiment: A group of 40 people are involved in the experiment. 20 chew gum each day and 20 do not. Their teeth are checked before the experiment and 6 months after.

1. What is the **Independent Variable**? \_\_\_\_\_
2. What is the **Dependent Variable**? \_\_\_\_\_
3. What would be some **Controlled Variables** for this experiment?  
\_\_\_\_\_

4. Which Group is the **Test Group**? \_\_\_\_\_
5. Which Group is the **Control Group**? \_\_\_\_\_
6. Is this a **Fair Test**? Why or why not?  
\_\_\_\_\_

Question: Does eating candy cause children to become hyperactive?

Hypothesis: Eating candy causes children to become more active than without candy.

Experiment: 100 3rd grade children are observed daily for 10 days. 50 children are given 25 grams of candy each day at 3:00 p.m. 50 children are not given the candy. Scientists observed all children's behavior from 3-5 p.m. daily and recorded changes in activity level. The children were all approximately the same size and weight, and had the similar activity levels before testing.

1. What is the **Independent Variable**? \_\_\_\_\_
2. What is the **Dependent Variable**? \_\_\_\_\_
3. What would be some **Controlled Variables** for this experiment?  
\_\_\_\_\_

4. Which Group is the **Test Group**? \_\_\_\_\_
5. Which Group is the **Control Group**? \_\_\_\_\_
6. Is this a **Fair Test**? Why or why not?  
\_\_\_\_\_