

# Design an Experiment Worksheet

**Directions:** Working with your group create a hypothesis, design your experimental set-up, and identify the different groups in the experiment. Then share your work with your mixed group.

1. You are a doctor working at Kaiser. You want to test a new drug for cancer patients who are being treated in your hospital. You have a good feeling that this drug will work. You have 100 patients on which to test your drug.

a. Hypothesis:

b. Experiment (what are you going to do?):

c. What is the control group?

d. What is the experimental group?

e. The independent variable:

f. The dependent variable:

2. You are on the CHS football team. You want to know if drinking water or drinking Gatorade during a game is more hydrating. The team has agreed to help you test your hypothesis during the next 6 games.

a. Hypothesis:

b. Experiment (what are you going to do?):

c. What is the control group?

d. What is the experimental group?

e. The independent variable:

f. The dependent variable:

3. You have heard that chewing gum during a test can help a student get a higher score. Your spiffy teacher has said that you can test your hypothesis during the next exam.

a. Hypothesis:

b. Experiment (what are you going to do?):

c. What is the control group?

d. What is the experimental group?

e. The independent variable:

f. The dependent variable:

4. You want to test the effect that amount of light has on growing bean plants. You have 20 plants and the ability to adjust the amount of light.
- a. Hypothesis:
  - b. Experiment (what are you going to do?):
  - c. What is the control group?
  - d. What is the experimental group?
  - e. The independent variable:
  - f. The dependent variable:
5. You want to know if feeding rabbits corn is better for their growth than the normal feed pellets that they eat. You have 20 rabbits on which to perform your experiment.
- a. Hypothesis:
  - b. Experiment (what are you going to do?):
  - c. What is the control group?
  - d. What is the experimental group?
  - e. The independent variable:
  - f. The dependent variable:
6. You have heard that listening to Mozart while studying will help a student do better on the exam. Your class at school (about 100 students) has agreed to participate in your experiment. (Hint: you also need to consider the affect that the amount of studying will have).
- a. Hypothesis:
  - b. Experiment (what are you going to do?):
  - c. What is the control group?
  - d. What is the experimental group?
  - e. The independent variable:
  - f. The dependent variable: