

Ames Test Experimental Design Worksheet

Please download this form, fill it out using Microsoft Word, print the completed form and turn it in by the deadline specified in the syllabus. You will notice you can only type in the gray boxes; they will expand as needed. You should only turn in one worksheet per group.

Project title (think about what the title of your lab report would be):

Research Group Members:

1. _____ | 2. _____ | 3. _____

What chemical or product do you want to test as a possible carcinogen/mutagen?

What do you know about your chemical so far? (How is it used? How/where do people come into contact with it? In what concentrations? If it's a product, what are its active ingredients? Is it toxic? Is anything known about whether it might be a mutagen or carcinogen?)

Give at least one **Reference** to a published, scientific article that you used to obtain information about your chemical. Web references are not acceptable. If you want to test a chemical and can find absolutely no published information on it, check with your instructor to see if the information you have will be acceptable.

Based on what you have learned about your chemical or product, do you expect it to be a mutagen, or not? Justify your hypothesis.

Summarize how you will carry out an **Experiment** to test your chemical as a potential mutagen. Include details such as the starting concentration of your chemical (in units such as % or mg/ml) and the concentrations of the dilutions you will make. Don't forget to include the number of trials you will do.

What **Concentrations** of your chemical will you test? Briefly indicate why these concentrations are appropriate.

Controls are especially critical for this experiment. In the first week, you did three different controls that are essential in validating your experiment. Describe each of the three controls and how they help you verify that your data are valid. Indicate which control(s) from last week can