

Experiment At Home

Your mission: Create a controlled experiment of your own to solve a problem, perform your experiment at home, and present your experiment to the class.

STEP 1.....DUE – Tuesday, Nov. 8, 2011

- ★ For this step of the project, you must choose a topic for your experiment.
- ★ Pick something you are interested in or wonder about.

Topic: _____

STEP 2.....DUE – Wednesday, Nov. 9, 2011

- ★ For this step of the project, you must create a pretend story with a character who has a problem (related to your topic) and needs to solve this problem with an experiment that requires a TREATMENT.
- ★ Your story must be 1 TYPED paragraph, and have 4-5 sentences.

STEP 3.....DUE – Wednesday, Nov. 9, 2011

- ★ For this step of the project, you must write the QUESTION your character is trying to answer in the experiment to solve the problem. Make sure it is MEASURABLE!!! There must be a TREATMENT stated in your question.

Question: _____

STEP 4.....DUE – Wednesday, Nov. 9, 2011

We have read through the entire experiment project and understand the requirements and due dates, and approve of the experiment that has been chosen.

Your Signature: _____

Parent Signature: _____



STEP 5.....DUE – Thursday, Nov. 10, 2011

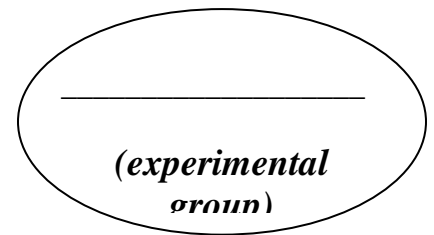
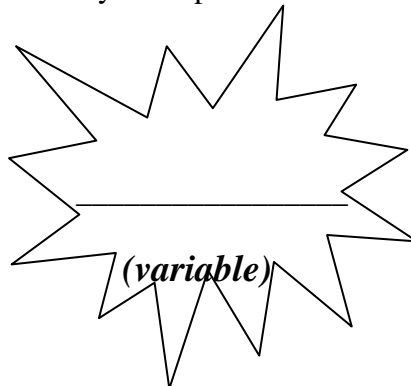
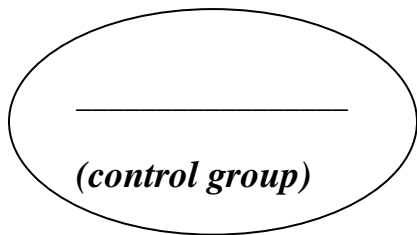
- ★ For this step, you must find some book or online resource (article/webpage/book chapter) that provides you with background (like the bubble gum article) about your topic.
- ★ Print/photocopy your article.
- ★ Write a HYPOTHESIS for your experiment, using your article to cite a reason for your hypothesis.
- ★ Highlight the part of the article you used for your hypothesis.

Hypothesis: _____



STEP 6DUE – Monday, Nov. 14, 2011

- ★ For this step, be sure to write your TEST so it is a *controlled experiment* (Type or put on lined paper)
- ★ Your results **MUST** be measurable.
- ★ Fill in the diagram below for your experiment.



Constants:(at least 4)



STEP 7DUE – Friday, Nov. 18, 2011

- ★ Create a **data table** in which to record your RESULTS. → **IN MICROSOFT WORD**
- ★ For this step, **do your TEST** at home. → **BEFORE Friday**
- ★ **Record your RESULTS.** → **Must be MEASURABLE!!**
- ★ Create a **BAR GRAPH** to show your RESULTS. → **Completed in Create-a-Graph website**



STEP 8DUE – Monday, Nov. 21, 2011

- ★ For this step, use your question, hypothesis, and results to **TYPE conclusions.**
- ★ Remember to answer the following questions:

Conclusions:

1. Describe what happened in your experiment. (What did you find out? You don't have to describe the steps of experiment, just your results)
2. Was your hypothesis proved or disproved?
3. Why do you think the experiment turned out the way it did? (Describe WHY the results turned out the way they did.)
4. Describe any possible sources of error that could have affected your results. Sources of error are reasons why your results may be different from someone else who performs this test.



STEP 9DUE – Monday, Nov. 21, 2011

- ★ For this step, **create a poster** including the following (all work MUST BE TYPED!!):
 - Background story (pretend character with a problem)
 - Question
 - Hypothesis
 - Test
 - Results
 - Data table
 - Graph
 - Conclusions
 - 2-3 pictures of the experiment (pictures can be of the experiment while it is happening OR pictures of materials used –can draw pictures or get from website--- BUT you must CITE all pictures!!)