

YOUR EXPERIMENT PROJECT

GOAL: Design, carry out, and report on an experiment.

STEPS:

1. Identify your problem and make a hypothesis.

What question would you like to answer?

2. Design your experiment by identifying variables and explaining your procedure.

3. Gather materials and set up the experiment.

4. Collect data and take pictures

5. Write a conclusion

6. Display your experiment on a small poster or in a folder. Include diagrams, photos, pieces of materials you used.

BE SURE TO PUT ALL OF THE PARTS TO YOUR EXPERIMENT ON THIS VISUAL..
The Experiment Design Form on the back will help with this..

Timeline:

April 12: Have a topic selected.

April 15: Have your experiment designed on paper.

April 20: Have your materials collected and begin your experiment

April 26: Have your experiment completed

April 28: Have your poster/ display finished. Bring it to school.

You can finish as early as you want. Just be sure your finished product is done with pride and is neat and complete.

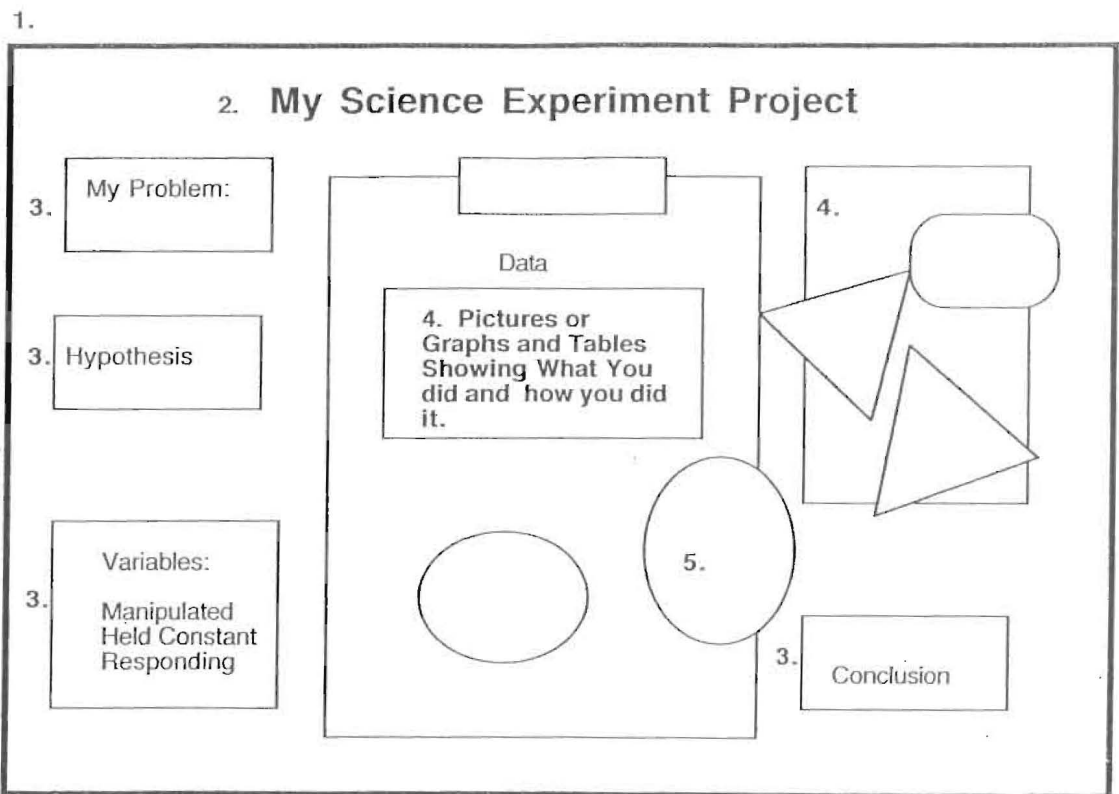
There are hundreds of ideas to do an experiment on. Below are just a few. Use one of these or come up with your own: Many of these ideas come from the book "Science Projects and Activities". Other books are available.

- Does grass seed sprout better in the sun or in the dark?
- How does color of the container cover affect seedling growth?
- How does water temperature affect breathing in fish?
- What age group takes the least time to return to a resting heartrate after exercise?
- What kinds of sounds startle people of different ages?

- What ingredient in pancakes is most necessary for volume (rise and fluffiness)?
- Do all types of beans have the same rate (%) of germination (sprouting)?
- Does root starting hormone really make roots grow faster on plant cuttings?
- How does color affect heat absorption?.
- What kind of nuts produce the most heat when burned? (p. 26)
- Does fertilizer improve the flowering of bulbs?
- How does temperature (or amount of water) affect the growth of mold on bread?
- How does the length of a pendulum affect how fast it swings?
- Is an acid or a base hardest on the growth of bean seeds?
- How deep is too deep when it comes to planting grass seed (or other seeds).

MY FINISHED SCIENCE EXPERIMENT PROJECT
THE THINGS I NEED TO CONSIDER IN MY DISPLAY

NAME: _____ # _____



1. The board should be standard size or smaller. It can be aligned either horizontally or vertically.
2. All Lettering should be even and the title should be up at the top. Typing is great
3. Be sure you show all parts of the experiment...and label each part .
4. Any pictures or diagrams should be explained with some basic information.
5. Use cool shapes and bright colors to make your pieces stand out.

*****Be SURE to Attach or Glue Everything Down Completely

Scientific Method Worksheet

DATE: _____ NAME _____ # _____

TOPIC: _____

Complete the boxes below to show your understanding of the scientific method:

What is the **Problem?** (What **question** were you trying to answer):

What **hypothesis (inference)** do you intend to test (or did you test)?

What **materials** will you need?

Name the **manipulated variable** (also called the **independent variable**)

What is your **Control?** _____
(What you compared your results with.)

Name at least 5 **Variables Held Constant:** _____

What is your **responding variable** (also called the **dependent variable**)?

Data: Put your data in a list or table on the back of this paper. If possible, make a graph of the data.

What **conclusion** (answer to your question) did you come up with in this test? State in a sentence.

Grade

"My Science Experiment Project Scoring Rubric

NAME _____ # _____

Title or Question: _____

Project Board	Superior (5)	Good (4)	Fair (3)	Poor (2)	Accept (1)	None (0)
ID Info...Name,#, Title						
Question Clearly Stated						
Procedure Clearly Shown						
Summary -Clearly Explained						
Pictures, Graphics and other Interesting Features/ Design						
Overall Neatness						
Oral Presentation						
TOTALS	____x5	____x4	____x3	____x2	____x1	____x0
Comments:						Total Points

How To Write Your Experiment Summary

Your experiment project summary (sometimes called an abstract), can be summed up in three parts. First answer the question “What did I want to find out?” Next, “explain what you did to find out”, and finally, “tell what you found out”. In other words, tell the “story” of your experiment.

The first part simply states your problem, or question. Tell briefly what you wanted to find out in your experiment. You should have an entertaining or “grabber” beginning to catch the attention of the reader. You may mention some of the background information you collected and be sure to tell what hypothesis you made to test with your experiment.

The second part of your summary puts into paragraph form how you conducted your experiment. In this part you need to say what materials you used, name your variables (manipulated variable, the responding variable, variables held constant, and control). This will be the longest part of your summary. It may be one long paragraph or several paragraphs if necessary. Again, tell the “story” of this experiment. Try not to make this too long, but be as interesting as possible.

The last part of your summary is your conclusion. In a brief paragraph tell what you found out. Were you surprised, or was your hypothesis correct?

In summary, when writing your project summary, or abstract, tell in an interesting manner what you wanted to know, how you found out, and what you found out when you did your experiment. Remember that, if you worked with a partner, each partner must write up their own summary. Have fun with your project!