

CRITERIA FOR EXPERIMENTS

1. Your experiment begins with a clearly defined **PURPOSE** of something you are trying to demonstrate or prove,
OR it begins with a **TESTABLE QUESTION**.
2. You will form a **HYPOTHESIS** first about the possible results based on prior research and experiences.
3. Most experiments require a **CONTROL** group to verify that it is actually the independent variable that is causing the results.
4. You will need to **REPEAT** your experiment several times to increase the validity of your results.
5. You will create a **TRIFOLD** display board that includes the following:

A catchy title of your experiment

Your name, room number, and grade

Purpose or Question: Why are you doing this project? What do you hope to prove or to learn?

Materials: List all materials used.

Procedure: List all the steps in detail so that someone else would be able to duplicate your experiment.

Results: State the facts of what happened. Cite the data. Include either a chart, table, graph, and/or photographs.

Conclusion: Interpret the results. Explain why you think you got these results and remember to relate it back to your original hypothesis. What would you do differently if you were to try this experiment again?

Adult Assistance: Clearly explain what part of the project needed adult assistance.

(If you used references for your experiment, make sure you cite them on your display board.)



6. If possible, bring in your experiment or some portion of it to **DISPLAY** in front of your trifold. If not possible, make sure you included photographs on your trifold.

Vintage Magnet Science Fair Scoring Rubric for Experiments

Criterion for Oral Explanation:				
	4	3	2	Total Points
1. Knowledge about the topic and project:	<ul style="list-style-type: none"> Gives a clear and accurate explanation of the purpose or question for the experiment and why the topic was chosen. Demonstrates extensive knowledge on the topic. 	<ul style="list-style-type: none"> Good understanding of the purpose or question. Knowledge is equal to what is written on the project. 	<ul style="list-style-type: none"> Purpose or question for the experiment may be a little confusing or unclear. Demonstrates little knowledge on the topic or difficulty level may be beyond grade level understanding. 	± 8 Points
2. Understanding / defense of Procedure:	<ul style="list-style-type: none"> Describes every detail of materials used and the testing procedures. Explains how the experiment was set up. Identifies the controlled variables (remains constant), independent variables (what changes), and dependent variable (results). Explain how and why the experiment was conducted at least three times. Gives credit for any adult assistance, but <u>student</u> clearly did the bulk of the work. 	<ul style="list-style-type: none"> Describes most of the materials and testing procedures Explains how the experiment was set up. Identifies the controlled variables (remains constant), independent variables (what changes), and dependent variable (results) and able to explain OR conducts the experiment three times and is able to explain why. Somewhat acknowledges construction help given. <u>Adult</u> did some work that could have been done by the student. 	<ul style="list-style-type: none"> Cannot explain the experimental process, or does so poorly, or does not know what materials were used Did not use three types of variables and did not repeat the experiment or does not understand why these are necessary Does not acknowledge help given or <u>adult</u> did the bulk of the work. 	± 12 Points
3. Understanding of Results and Conclusion:	<ul style="list-style-type: none"> Demonstrates a clear understanding of the results and why they happened. 	<ul style="list-style-type: none"> Fair understanding of results and why they happened 	<ul style="list-style-type: none"> Unclear understanding of the results and not sure why they happened. 	± 4 Points
Criterion for Trifold:				

1. Trifold: (Work may be typed or <u>hand written</u> .)	<ul style="list-style-type: none"> Every component listed in the criteria chart is on the trifold. Title, Student I.D., Purpose/Question, Materials, Procedure (photos are strongly recommended), results with Graph/ Table/ Chart, Conclusion, Adult Assistance, (References are optional.) All work is neat and proofread. 	<ul style="list-style-type: none"> Most of the components listed in the criteria chart are on the trifold. Some of the work may be incomplete or lack proofreading or neatness. 	<ul style="list-style-type: none"> There are several missing components on the trifold. The work is poorly executed, or the trifold is missing. 	± 8 Points
Criterion for Display:				
1. Display:	<ul style="list-style-type: none"> Experiment is displayed in front of the trifold, AND photographs of the experiment are on the trifold. 	<ul style="list-style-type: none"> Experiment is displayed in front of the trifold OR photographs of the experiment are on the trifold. 	<ul style="list-style-type: none"> Neither the experiment nor photographs are on display. 	± 4 Points
				Total Possible Points: 36

Total points earned: _____

Note:

- In order to advance to the Science Fair Finals, the project must receive 33 points or above. Projects that receive a score of 2 in any subsection will be disqualified from advancing to the Science Fair Finals.

Does this project qualify to enter Vintage Science Fair Finals?

Yes No

Teacher Signature: _____