**Scientist in Training-Individual Research Assignment Semester Project**

**DUE DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Your Project must be based on EXPERIMENTATIONor BUILDING OF TECHNOLOGY including testing of the product. ***Research reports are not acceptable for this project!*** A project variable must be measured in some format/replications done, data collected and put into a chart, graphed, and analyzed with a basic statistic such as a percentage for results.
* The Project should be based on a well stated question, include background research on or related to the topic of study. Background research must be in APA format, Double-spaced. 6th grade must be 2 pages in length and 7th grade must be 3 pages in length. There should be a student hypothesis/prediction of outcomes or a statement of purpose if it is a TECHNOLOGY based project.

**I will be giving out a research progress check list in a week or so for homework that will require you to describe your topic and question with a parent signature so that I know you are making progress on this very important assignment for your grade in my class this nine weeks.**

* The BOARD presentation is preferable on a 3-part science fair board, but can be large cardboard or foam core board spliced together with tape and covered by some type of paper.

The Board should be neatly done, typing preferred with PROPER SPELLING AND GRAMMAR, and the following sections should be on it:

1. Title
2. Question, Hypothesis/Prediction
3. Materials List
4. Your Experiment’s Step-by-Step Plan
5. Background Research
   1. All must have minimum of 3 references with proper citations
   2. 6th grade-2 pages APA Format, Double-spaced
   3. 7th Grade- 3 pages APA Format, Double-spaced
6. Data chart, Statistics/Tallies/Averages/Percentages, etc.
7. Discussion of the data and patterns or lack of patterns (Analysis)
8. Conclusion: was the hypothesis supported or not, why/why not, must include statistics, thoughts about the project
9. Pictures enhance the board so the observer can see what the student has done.

**\*I have included a basic judging rubric on the back to give a more complete view of what**

**should be on the project.\***

We will look at sample boards the week before Thanksgiving to help you know what a well done board should look like before you paste your project together.

**Individual Research Project-Science Fair Checklist: EXPERIMENTATION**

**Checkpoint 1: DUE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Put all answers on a separate sheet of paper!**

1. What is the question for study?
2. Describe the experiment of what you plan to do. This must be VERY DETAILED!

* Give a step-by-step plan of how you’re going to carry out the experiment
* What tools are you using in the experimentation? Will you be using a ruler, meter stick, timer/watch, scale/balance, thermometer, etc.?

1. What will specifically be measured/observed for data-the DEPENDENT VARIABLE?
2. What UNIT of measurement will the Dependent Variable be measured in?
3. What is the INDEPENDENT VARIABLE? What are you manipulating or changing that will AFFECT The Dependent Variable?
4. What UNIT of measurement will the Independent Variable be measured in?
5. What is the control or group used for comparison?
6. What is the process/timeline for completion? (Break the project into parts for each week.)

**Parent Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Topic Approved:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Checkpoint 2: DUE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Describe in **DETAIL** what you have done. Describe where you are in your process/timeline:

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**Checkpoint 3: DUE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Describe in **DETAIL** what components have been Completed for your project:

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**\*\*FINAL PROJECT IS DUE ON \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ AND THEY**

**WILL BE PRESENTED ON \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\*\***

**Individual Research Project-Science Fair Checklist: TECHNOLOGY**

**Checkpoint 1: DUE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Put all answers on a separate sheet of paper!**

1. What is your Statement of Purpose?
2. What is the innovation or design change that you’re experimenting on?
3. Explain your design based off of background research completed.
4. What materials will you need?
5. Do you have a Dependent Variable, Independent Variable, or Control?
6. Construct a drawing on paper of your technology design, including measurements.
7. Will you be constructing a prototype before making your final design?
8. After making a prototype, do you have to redesign it before constructing your final product? If yes, what changes have you made and WHY?
9. What is the process/timeline for completion? (Break the project into parts for each week.)

**Parent Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Topic Approved:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Checkpoint 2: DUE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Describe in **DETAIL** what you have done. Describe where you are in your process/timeline:

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**Checkpoint 3: DUE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Describe in **DETAIL** what components have been Completed for your project:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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