Dear Students and Parents,

The purpose of the Science Fair Project is to give students the opportunity to perform an experiment to test a hypothesis. **ALL 4th and 5th grade students at Goshen Elementary are required to complete a Science Fair project**. A hypothesis cannot be tested with a model. Students are not allowed to make models. For example, **volcanoes, solar systems, slime/putty and lava lamps are not acceptable project ideas**. Students cannot properly test or use the full scientific method if a model is made. Models will not be graded and a grade of 0 will be given if one is submitted. The science fair projects are due the week of **December 2** **– December 6h**. Students are allowed to turn projects in early, but I will not accept projects after **December 6, 2024**. If you have any questions or concerns, please feel free to message me in Dojo or email me. Students are expected to keep all of their research information in a **marble composition notebook (**log book**)**.

4TH and 5TH Grade Teams

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**PROJECT PROPOSAL**

What will your project be like and what scientific question will it answer? Will your project involve performing experiments? What do you want to learn about?

THE TOPIC OF MY SCIENCE FAIR PROJECT:

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A BRIEF IDEA OF WHAT I’M GOING TO DO:

**PLEASE SIGN AND RETURN**

Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PLANNING PAGE**

Developing a plan is an important step in solving a problem. Scientists use a problem-solving plan known as the Scientific Method. In the plan you need to work through the following steps:

1.What do I want to find out? (state the problem)

2.What do I think will happen or how can I solve my problem? (Hypothesis: If this…, then that…)

3. How can I test my hypothesis? (Experiment)

4.What type of data can I collect? How will I collect and display the data?

5.What will I do with the data and results that I collect?

**RESEARCH**

Gather information that relates to the topic area of your project by reading and referring to different resources.

**QUESTIONS TO GUIDE YOUR INVESTIGATION:**

1.What field of science is related to your project? (human body, physical science, consumer science, plants, animals, earth science, etc.)

2.Do you know anyone who works in the field of science you are researching?

3.Where can you begin looking for information related to your project? (List some internet sites, books, videos…..)

**Bibliography Information** – where did you get your research and information?

**MATERIALS TO CONDUCT EXPERIMENTS**

List the materials you might need to perform the experiments for your project. Even if you have some of the materials around your home, find the cost of the materials you would need. You might try finding the cost of materials in home supply stores, etc.

**PROCEDURE I USED TO TEST MY HYPOTHESIS**

It is very important that you are very detailed in your descriptions so that others can repeat your experiments for themselves. You may attach additional pages if needed.

**GRAPHS AND DATA**

An experiment should give you information to compare. Repeating an experiment more than once helps to confirm your results and gives you even more information to compare. Graph or record your results in detail.

**CONCLUSION**

Think about the scientific processes you used to work on your project. Answer the questions below to extend your thinking about your experience.

1.How has your final project changed from your original plan? Why?

2.Did the outcome of experiments prove your hypotheses to be correct or incorrect?

3.Identify and explain the types of data you used to prove or disprove your hypotheses?

4.What types of problems did you encounter throughout your scientific investigation as you worked on your project?

5.If you developed this idea again, what would you do differently?

6.How is the information you learned through the scientific processes relevant to experiences in your real life?

7.What other ideas did you think of while working on this project?

**Science Fair Project Suggested Timeline**

The following is a list of suggested dates for each section of the project. The only parts that are required to be submitted and checked by the teacher before the project is complete are **Section 1** and **Section 2**. It is better to work ahead of the dates listed, in case there is a problem. Remember, sometimes scientists need to redo a part of their experiment or the entire project.

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| **Assignment** | **Completed by date** | **Check-Off** |
| **Section 1.** | * Science Fair Project Information packet sent home with students. 08/27/24
* Parents and students sign and return project date slip.
 | 08/30/24 | Teacher |
| **Section 2.** | * Write a Title
* Choose a Research Question/Problem
* State your Hypothesis
* List your Materials

All of this information should be in the log book. Students should submit this information as soon as possible, so that the teacher can verify a testable experiment will be conducted.  | 09/30/24 | Teacher |
| **Section 3.** | * Write the Procedure for the experiment
* Conduct the experiment
* Begin Research Paper
* Keep track of notes and data in Log Book

You may need more or less time for this section. | 10/18/24 | Student & Parent |
| **Section 4.** | * Complete the Research Paper (include a Reference page)
* Finalize the Results- include graphs, tables or pictures
* Write the Conclusion
* Keep track of notes and data in Log Book
 | 11/01/24 | Student & Parent |
| **Section 5.** | * Complete Project Display Board
* Review and Finalize Research Paper
* Organize project materials, experiment, Log book
 | 11/14/24 | Student & Parent |
| **Section 6.** | * Submit Project to teacher for grading
* Prepare to present project to class (Science Fair)
 | 12/06/24 12/10/24 | Student & Parent |