December 7, 2016

Dear Parents,

It is science fair project time! Inside this packet you will find a lot of useful information, a schedule of due dates to keep your child on a timeline, and forms that will be completed in intervals along the way. These forms represent steps in the scientific method and will be completed, turned in, and graded before the entire project is due.

Your child should keep this packet in his or her binder until the project is turned in. Please use **only** the forms provided when your child turns in the information requested. These forms contain much of the information that will be used when the display board is constructed for the project. It is probably a good idea to keep a copy of the complete forms for yourself. These forms will become part of the “log book” and should be placed there.

The last page of this packet details the requirements for the written report. This is separate from the logbook.

Science fair projects will be a **major** grade for science and ELA.

If you have questions at any stage of the process, please don’t hesitate to ask your child’s teacher. We’re here to help.

Sincerely Yours in Christ,

The Elementary Teachers

**Important Dates and Resources for**

**Experimental Science Projects**

|  |  |
| --- | --- |
| December 16-  January 15 | Begin Log Book. Make an entry every time you brainstorm your project or work on your project. Determine title, problem, hypothesis, Bible verse |
| January 13 | **First due date:** Title (in question format) Hypothesis, Bible Verse |
| January 13-20 | Work on experimental design. Begin research using at least 1 book from the library. |
| January 20 | **Second due date:** Experimental design (materials & procedure) |
| January 20-  February 10 | Continue Log Book. Conduct experiment (be sure to repeat it 3 times) and record data in Log Book. |
| February 10 | **Third due date:** Results and Log Book |
| February 17 | **Fourth due date:** Project Conclusion, Abstract and Bibliography |
| February 17-22 | Finalize project, written report, and create display board |
| February 23 | **Final due date:** Science fair projects brought to class (Logbook, Written Report, and Display board). Be prepared to present your project and explain your results to the class for a grade. |
| February 24 | **Southminster School Science Fair** |

**Useful Websites**

General Resources:

<http://pbskids.org/dragonflytv/scifair/index.html>

<http://www.brainpopjr.com/science/scienceskills/scienceprojects/puzzle/>

Scientific Process- <http://school.discoveryeducation.com/sciencefaircentral/>

How to set up the project- <http://faculty.washington.edu/chudler/fair.html>

Ideas for the Science Fair- <http://www.sciencebuddies.org/science-fair-projects/project_ideas.shtml>

Search for Bible verses by keywords or subjects- [www.biblegateway.com](http://www.biblegateway.com)

Connecting Bible verse to project- <http://www.wholesomewords.org/resources/creatvs.html>

Example of videos- <http://www.youtube.com/watch?v=MhNafpxfjcs>

Create a graph- <http://nces.ed.gov/nceskids/createagraph/default.aspx>

Create a bibliography- <http://education.bluevalleyk12.org/KidBib/>

**First Due Date: January 13, 2017**

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

1. Title: (in question format. Example: “How does water purity affect surface tension?”)
2. Hypothesis: (In “if, then” format- Example: *If* you use different sweeteners, *then* sugar will grow the thickest crystals.)
3. Bible verse related to the project (Include the bible version):

**Second Due Date: January 20, 2017**

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

1. Materials needed:
2. Variables:

Independent variable (the part of the experiment you will change):

Dependent variable (the part of the experiment you will observe):

Controlled variable (the part of the experiment you will keep the same):

1. Procedures: (Include step #’s and continue on back of page.)

**Third Due Date: February 10, 2017**

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

1. Log Book (Bring the book to class.)
2. Results (What happened?):

**Fourth Due Date: February 17, 2017**

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

1. Restate hypothesis:
2. Was I correct or incorrect? Why was I correct or incorrect? If I was incorrect, what should have been done to achieve the desired results?

Extension: What could I do to further investigate my hypothesis?

Abstract- A brief description (no more than 250 words) of what happened in the project. Though placed at the beginning of the written report, it is the last thing that is written. Note: it also appears on the display. Example: *“Three brands of tennis balls were tested to determine which one retained its bounce over the longest period of time. The balls were regularly bounced over a five-week period. Of the three brands tested- Brand A, Brand B, and Brand C- Brand B retained its bounce best.”*

Bibliography:

**Written Report Requirements**

This can be hand-written or typed. Bring this to school with your display board and logbook on Feb. 23.

**3rd & 4th grade: 200 word minimum, 5th & 6th grade: 250 word min.**

1. Title page and Table of Contents
2. Abstract
3. Introduction (Begins with hypothesis and any background research used to inform the project. End with a brief statement of what was studied in the project. This section should also include the biblical application.
4. Materials and Procedures
5. Results (e.g. tables, graphs, photographs, etc.)
6. Discussion: This is the explanation of what happened (or did not happen) in the experiment. (Do not repeat the data, just discuss it.)
7. Conclusion (A concise summary of the major discoveries found)
8. Acknowledgements (Acknowledge any help you have had in performing the experiment.)
9. Bibliography (Works Cited) All sources must be identified/referenced.