

September 28, 2011

Dear Students & Families,

It's that time of year again! Time to start thinking about the 2012-20112 OLA School Science Fair! The science fair will be held in Assumption Hall during Catholic Schools Week, which is from January 30 to February 3. The Science Fair will be on February 2. It is required that all students in grades 6-8 submit a science fair project. The project is worth 10% of each student's science grade.

The following packet includes materials that will help to create a successful science fair project.

- ✓ Letter to Students & Families
- ✓ Scientific Method Guideline
- ✓ Project Display Board Example
- ✓ Student Proposal Form
(Must be signed by Parents/Guardians & Students)
- ✓ Project Timeline

Proposals are due by **October 10th** and must be approved. Proposals may be turned in earlier. Once the proposal has been approved, the project may begin. Please do not begin any projects without prior approval.

Feel free to contact me with any questions that you may have concerning the science fair. Remember, this project is supposed to be fun! Parents, please allow your student to be creative, and show off their own unique skills. If the investigation does not turn out the way it was planned, that's okay, as long as your student understands why, and what they would do differently next time. Scientists are constantly learning from unexpected results!

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Using the Scientific Method To Create a Successful Science Fair Project

1. Choose a topic that interests you. Narrow your topic. Look for relationships found within your topic. Think of a question about a relationship. The question should point out a **cause and effect** relationship. This will be the **purpose** of your investigation.

Example: Topic – Plants
 Relationship – How plants are helped by the use of fertilizers.
 Question – Will fertilizer “X” or “Y” cause petunias to grow taller?

2. Discuss your idea with your teacher.
3. Research your topics. Find out as much as you can about your topic. Use many different sources.
4. Define the **purpose** of your project. Describe the problem you will be investigating. Decide on your **hypothesis**. Your hypothesis is a statement of what you think will be the outcome of your investigation.
5. Make a list of all the **materials** you will need. Plan your experiment carefully. Keep in mind the amount of time you will have. Determine which variables you will need to control to make sure your experiment will be fair and your results will be accurate.
6. Conduct your experiment. List each step carefully. This will be your **procedure**. Your procedure should be so complete someone else could easily duplicate your experiment. Keep the data you collect organized. Use charts, tables, graphs and pictures. The data shows the **results** of your investigation.
7. Draw your **conclusions**. Did you prove or disprove your hypothesis? Write a paragraph explaining your conclusion.
8. Organize all your written information, charts, graphs, pictures, etc. Begin to prepare your backboard. Organize your information into the given categories:

Title: This should be in the form of a question.

Question: This is the purpose of your investigation.

Hypothesis: This is a statement about what you think the outcome of your investigation will be.

Materials: This is a complete list of all the materials you used.

Procedure: This is a step-by-step list of the steps in your investigation.

Results: This is where you include charts, graphs, diagrams, pictures, etc. that show the results of your investigation.

Conclusion: This is a paragraph about what you learned from your investigation. Did you prove or disprove your hypothesis.

9. Prepare a neat display. Check carefully for complete sentences, correct grammar, correct spelling, and neat writing. All your categories can be printed on the computer. You need to bring the materials used in your investigation as a part of your display.

****Remember** - A Science Fair Project is an *investigation* based on a *question*. It is not a model or a display (i.e. a volcano or a model of the solar system).**

Proposal Form: OLA Science Fair 2011 - 2012

This document is due no later than October 10, 2011.

Name: _____

Grade: _____

Project Title (In the form of a question): _____

Purpose (Why do you consider your project important? The purpose of my science fair project is to...): _____

Method of Obtaining Answer: _____

I understand that each assignment turned in late will be subject to a point/grading penalty.

Student Signature

Parent Signature

Approved

Disapproved

See Me

Science Fair Timeline

2011-2012

(Dates subject to change)

Due dates are in **bold**

September 28

- Introduce Science Fair
- Discuss Timeline
- Hand out Proposal Forms

September 28

- Research Topics In Computer Lab

October 10

- **Proposal Forms DUE**

October 10

- Background Research Plan (in class)
- Pass out note card information

October 17

- **Background Research Plan DUE**

October 31

- MLA Format discussion
- Research Paper discussion

November 1

- Discuss variables and hypothesis

November 3

- Work on bibliography (in class)

November 8

- **Bibliography DUE (MLA Format)**

November 28

- **Rough draft of Research Paper DUE**
- **Hypothesis DUE**

December 5

- **List of materials DUE**
- **Procedure Steps DUE**

December 15

- **Final draft of Research Paper DUE**
- Introduce Backboard Requirements

December 17-January 2

- Christmas Break!
- Do your experiment
- Collect data in a table
- Type one paragraph describing your observations

January 9

- Work on backboards
- **Observation paragraph DUE**

January 10

- Writing a Conclusion
- Writing an Abstract

January 12

- Making graphs

January 17

- **Conclusion DUE**
- **Abstract DUE**

January 26

- **SCIENCE FAIR DUE!**
 - **FINAL PAPER with:**
 - **Title Page, Abstract, Table of Contents, Question, Variables, Hypothesis, Background Research (your paper), Materials, Procedure, Data, Data Analysis, Conclusion, Bibliography**
 - **Backboard Display**

February 2

- Science Fair at OLA!

Maybe I could use these ideas for worksheets when they are ready to turn them in.
Hypothesis (What I think will be the answer to my question. Make sure to include a cause and effect relationship such as: If I water a plant with salt water then it will not grow as well as a plant watered with regular water.)

Materials needed for the experiment (create a list):

Procedure (Step-by-step directions of how you plan to carry out your experiment):