Science Fair 2010

What is a Science Fair Project?

A science fair project is a presentation of an experiment, a demonstration, a research effort, a collection of scientific items, or a display of scientific apparatus. It represents the efforts of student's investigation into some area of interest and provides a way for the student to demonstrate the results of those investigations. A science fair project is a unique way for students to satisfy their own curiosity about the world around them.

Science fair projects consist of three essential components.

1. Display Unit:

   The display unit forms the background for the project. It should be built of sturdy materials to provide structure for a vertical display of graphs, charts, photographs, and other printed information. Usually three –sided it includes the name of the project as well as other information that is important.

2. Exhibit Materials:

   The exhibit materials consist of items collected or demonstrated by the student, a set of apparatus, or the experiment the student carried out during his or her investigation. Display materials give the science project a three-dimensional effect and allow the other to observe the actual materials involved in the investigation.

3. Written report

   It is important for students to keep a written record of their investigations. This record outlines the original problem the student chose and the means and methods used to investigate it. The written report should be accurate and easy to read, and it should give a clear summary of the entire project. (This section is not for fifth grade students.)

Keys to a successful Project

Here is a list of factors that you can use to evaluate your project. Use the list throughout your investigations and also upon completion of the project to gauge the appropriateness of project features. Put a checkmark beside each factor to assess the completed project.

- Does the project represent the student's own work?
  Although students may receive help in investigating their topic and designing their respective projects, the final effort must be the student's – not that of the scientist, teacher, parent, or other adult.

- Is the project the result of careful planning?
  Successful projects cannot be accomplished overnight. They are the outcome of a systematic plan of action carried out over a period of time.

- Does the project demonstrate the student's creativity and resourcefulness?
  Students should be permitted and encouraged to contribute their own ideas to the design and development of a particular project.

- Does the project indicate a thorough understanding of the chosen topic?
  Students need to investigate their chosen area as completely as possible. Doing so will take time. The project must reflect the results of investigations done over an extended period.

- Does the project include a number of visual aids?
  Photographs, charts, diagrams, graphs, tables, drawings, or even paintings liven up any display and make it more interesting.

- Are all signs and lettering neat and accurate?
  The quality of a display is often judged by the attractiveness of signs, titles, and written descriptions.

- Is the display three-dimensional?
  In addition to the background and accompanying written report, the inclusion of samples, apparatuses, collections, or other items is vital to the project. These should be attractively arranged in front of the background display.

- Is all information accurate?
  Any data gathered from outside resources, such as printed materials or interviews with experts, and data obtained from experiments must be presented accurately.

- Does the display present a complete story?
  The student should illustrate the topic chosen for investigation, what was done during the investigation, the results, and a conclusion. In other words, the project should have a beginning, a middle, and end.

Choosing an Appropriate Topic

- Interests
  - What kinds of things do you enjoy doing?
  - What area of science interests you the most?
  - If you could be a scientist, what would you like to do?

- Difficulty Level
  - How hard will this topic be for you to understand?
  - What problems have you had with subject before?
  - Are you familiar with this topic or is it brand new?
  - Do you think that you will need to gather a lot of outside information?
  - What special tools or apparatus do you think you'll need?

- Time

  -Will you be able to spend some time on this project every week for 12 (or 6 weeks)
  - How long do you think you will need to gather information about this topic?
  - Are you interested enough in this subject to spend a great deal of time on it?
  - Will you need to set up a special schedule to complete all the things you need to do?
  - Do you have enough free time at home to work on the project?

- Materials
  - What special materials do you think you'll need for this project?
  - Do you have those materials at home or will you need to buy them?
  - Will need to construct anything complicated?
  - Will you need help in putting the display together?
  - Will you need to order any materials through the mail?
  - Will you be able to buy materials in local stores?
  - Will you materials be inexpensive or costly?

Suggestions for projects

Definitions of project types:

Experiments

The type most often presented at science fairs is the experiment. These presentations allow students to pose a problem, design an experiment to investigate that problem, record and report their results, and make conclusions based upon those results. The final project is a display of the steps the student took, any successes or failures, and the implication of the data.

Research

In a research project, the student investigates a chosen area of science by consulting primary sources. That is, students will need to consult reading materials from libraries, museums, and government agencies. In addition, they should interview experts, scientists, health care workers, and county agencies. The intent is for the student to explore a scientific area in depth and detail and to report the findings in a vivid, interesting way through the project.

Listed below are the project types that each grade may use for the science fair project.

Grade 5	**Grade 6, 7 & 8**
Research	Experiments

Components for Science Fair Project

Grade 5: research paper, poster for fair

Grade 6-8: research paper, lab report, and poster for fair, attendance at fair, class presentation

Due Dates:

Topic - **September 30th**

Problem – **October 9th**

Research Paper – **January 15th**

Lab Report (problem, hypothesis, procedure) - **January 26th**

Poster and Final Lab Report (completed) – **April 1st**

Class Presentations: **Weeks April 5th -9th & 12th – 16th**

Science Fair – **April 29th**

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Saint Francis of Assisi Mission Statement: *We are a Catholic community of faith striving to follow Jesus, pledging each day to do our best by imitating Saint Francis of Assisi as "instruments of peace." Our goal is to maintain a safe and healthy environment and to be academically prepared for this technological age.*

Saint Francis of Assisi School Science Fair

2009 - 2010

Student Entry Form: Please print neatly

Last Name: _____ First Name: _____

Grade: _____

Grades 5 Please only fill out the topic that you have chosen. Grade6, 7&8 Please fill out the topic section and then at a later date you will fill out the problem section..

Project Topic: _____

Project Problem: _____

(Remember the problem is why you are doing the experiment)

Student Fair Number : _____

St. Francis of Assisi School

Grade 6-8 Science Fair Research Paper

Name: _____ Topic: _____

	Criteria				Points
	4	**3**	**2**	**1**	
Format	Student properly followed the MLA Citation format.	Student is missing 1-2 of the MLA components.	Student is missing 3-4 of the MLA components.	Student is missing 4 or more of the MLA components.	____
Page Requirements	Paper is within the range of pages allowed. 3minimum5 maximum	Paper is 1-2 pages above the range of pages.	Paper is 3-4 pages above the range of pages.	Paper is below the range of minimum pages allowed.	
Information Gathering	Information is gathered from **multiple** electronic and non-electronic sources and **cited properly**.	Information is gathered from **multiple** electronic and non-electronic sources and not cited properly.	Information is gathered from **limited** electronic and non-electronic sources and cited properly	Information is gathered from **limited** non-electronic or electronic sources and not cited properly.	____
Summary Paragraph	Well organized, demonstrates **logical** sequencing and sentence structure.	Well organized, but demonstrates illogical sequencing **or** sentence structure.	Well organized, but demonstrates illogical sequencing **and** sentence structure.	**Weakly** organized.	____
Punctuation, Capitalization, & Spelling	Punctuation, capitalization and spelling are **correct**.	There is **one error** in punctuation, capitalization and/or spelling.	There are **two or three** errors in punctuation, capitalization and/or spelling.	There are **four or more** errors in punctuation, capitalization and/or spelling.	____
				Total---->	___

Teacher Comments: