

LETTER TO BE SENT HOME EXPLAINING SCIENCE FAIR

St. John of God School
November 14, 2011

Dear Parents and Students,

Grades 5-8 are invited to participate in our annual science fair. Due to limited space, only class projects will be accepted from students in Grades K-4. The fair will be held on Friday, January 27, 2012. You may enter one of the following projects:

Experiment - a display and an explanation of an experiment which follows the scientific method. Volcanoes will not be accepted.

Invention - a working model which solves a specific problem or makes a job easier to do. Inventions should test a variable and follow the scientific method. Biological and zoological projects are not acceptable.

Please refer to your Science Fair Handbook for assistance (paper or online). Mrs. Marquez, Mrs. Ontiveros, and Mrs. Guzman are available to help you plan and develop your project. Please make an appointment if you need help.

All fifth, sixth, seventh, and eighth grade students are **required** to turn in a project. Your science teacher will give you additional instructions on his/her requirements.

Parents are encouraged to **guide** students, but not build the project. Remember, a good project is planned and developed over a period of time. Start planning now!

Sincerely,
The Science Fair Committee

SCIENCE FAIR REGISTRATION FORM

NAME _____ GRADE/TEACHER _____

The name of my project will be

___My project needs an electric outlet. ___My project involves liquid.

PARENT SIGNATURE _____

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TEACHER PAGE

How do I make a science fair a successful experience for my students?

On this web site you will find lots of helpful information on how to set up a successful science fair, both for you, your students, and their parents. A science fair is a great way to cover many skills in our already crowded curriculums. It is an opportunity to assess what your students have learned in a real world setting. It is a way to let the community know the wonderful learning that is going on in your school and classroom. It is a lot of work but the rewards are well worth it. It gives students an educational experience they will remember long after they leave your classroom. Use any or all parts of this web site but if you do, please include the web address.

www.rst2.edu/portfolios/slautz and click on science fair project.

Frequently Asked Questions

-  What is the philosophy behind a successful science fair?
-  How does my school set up a science fair?
-  How should the parents get involved?
-  What do I do in my classroom to get my students ready for the science fair?
-  What are the steps in the scientific method?
-  How do I help my students choose appropriate topics?
-  What are possible science fair topics for my students?
-  How should my students display their projects?
-  How do I guide my students in writing a good research paper?
-  How do I assess my students' work?
-  How does this all relate to the New Jersey Core Curriculum Standards and the National Science Standards?
-  What other references are available to me?

PHILOSOPHY

What are the benefits of a science fair project for the students?

In addition to reinforcing the scientific method as an organized system of conducting an experiment, a science fair project should have the following objectives for the students:

- Develop their organizational skills
- Develop their study and research skills
- Develop a positive attitude toward science in particular and learning in general by encouraging them to search out answers to unanswered questions that interest them
- Improve their self-esteem by giving them an opportunity to display their work for a variety of audiences
- Select and complete a project that focuses on their individual learning style and/or intelligence(s)
- Acquire a variety of skills in a cross-curricular format that gives sense and meaning to their learning such as:
 - data collection, organization, and computation
 - research and report writing including note taking and outlining
 - higher level thinking skills such as summarizing, inferencing, and drawing conclusions
 - increase problem solving skills
 - written and oral presentation skills

How do I help my students select their science fair projects?

Students often select a project because it looks easy or it looks like fun. When they start doing them, they are often disillusioned with their choices and their projects are less than successful. [What makes a good project?](#) In order to guarantee success, teachers should guide their students in the selection of their projects. Students should select projects that meet the following criteria:

- It is of interest to the student. They should have a purpose for wanting to explore this topic.
- It should be a question that is answered by an experiment.
- It shouldn't be too general. Help students [limit](#) their choices.
- It should be challenging but not impossible to complete. It doesn't have to be complex to be successful.
- It should be a project that meets their learning style:

Howard Gardner of Harvard University defines intelligence as "the capacity to solve problems or to fashion products that are valued in one or more cultural settings" (Gardner, 1983). He suggests that all people possess at least eight different intelligences which operate in varying degrees depending upon each person's individual profile of intelligences. The general characteristics associated with each of these intelligences are described below

Linguistic intelligence - refers to an individual's capacity to use language effectively as a vehicle of expression and communication.

Logical-Mathematical intelligence - refers to an individual's capacity to think logically, use numbers effectively, solve problems scientifically, and discern relationships and patterns between concepts and things

Spatial intelligence - refers to the capacity to think visually and orient oneself spatially. In addition, spatially intelligent people are able to graphically represent their visual and spatial ideas.

Musical intelligence - refers to the capacity to appreciate a variety of musical forms in addition to using music as a vehicle of expression. Musically intelligent people are sensitive to rhythm, melody, and pitch.

Bodily-Kinesthetic intelligence - refers to the capacity of using one's own body skillfully as a means of expression or to work skillfully to create or manipulate objects.

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Interpersonal intelligence - refers to the capacity to appropriately and effectively respond to other people and understand their feelings.

Intrapersonal intelligence - refers to the capacity to accurately know one's self, including knowledge of one's own strengths, motivations, goals, and feelings.

Natural intelligence - refers to the capacity to understand the natural world including plants, animals and scientific studies and to recognize and classify individuals, species and ecological relationships. People with natural intelligence interact effectively with living creatures and can discern patterns of life and natural forces.

Ideas for Science Fair Projects

There are many sites on the internet to assist you in selecting a science fair project.

Still don't know what to do? Here are web sites that might help you.

[Beakman's World](#) (Click on "Interactive Demos" or "50 Terrific Questions")

[Bill Nye the Science Guy](#)

[Experiments and Activities](#) (These all deal with how we think.)

[Exploratorium](#)

[The Exploratorium Learning Center](#)

[The Exploratorium Science Explorer](#)

[Franklin Institute](#) (Search "Science Fair Projects")

[Homework Spot: Science Fair Center](#) (Ideas by "grade level" and "subject".)

[Kid's Guide to Science Fair Projects Ideas](#) and [Sample Projects](#)

[Mad Scientist Search](#) (Put an idea in the "search" box and see what you get.)

[Newton's Apple](#)

[Reeko's Mad Scientist Lab](#)

[Sample Experiments](#)

[Science Fair Central at School Discovery.Com](#) - **GREAT SITE**

[Science Fair Idea Exchange](#)

[Science Fair Ideas](#) (Click on "Primary" or "Elementary" projects for ideas)

[Science Fairs on The Web](#) - Go to "Experiments"

[Science Fair Project Ideas](#)

[Science Fair Projects](#)

[Science Fair Projects: A Resources For Students and Teachers](#)

[Science Hunt](#)

[Science Learning Network](#) (go to "Explore Our Resources")

[Science Made Simple](#)

[Science Net](#)

[Sciencz Fair Project Ideas](#) (or [Search This Site](#)).

[700+ Great Sites for Children - Science and Technology](#)

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The Thinking Fountain

Still stuck? [Ask Janice VanCleave](#), a nationally known science fair expert or [Ask an Expert](#), science experts in many different areas. These are two different sites with search engines in which you can enter your question and get some information, or perhaps, a science fair idea.

GUIDING YOUR STUDENTS

How do I guide my students in completing their science fair projects?

SELECT A TOPIC: Help your students select an appropriate topic that best meets their individual learning style and interest. Give them an opportunity to search the web and/or go the library to find an appropriate topic. Have them turn in a project proposal.

2. **GATHER INFORMATION :** Students need to read background information in order to create a hypothesis and to write a research paper, if required. They can be doing this concurrently as you work through the steps involved in creating a science fair project. (See below).

3. **TEACH THE SCIENTIFIC METHOD:** Familiarize the students with the scientific method. Here are some web sites that will give you additional information on the scientific method:

School Discovery.com

Kapili.com

4. **EXPLAIN A CONTROLLED EXPERIMENT:** Students need to know the difference between a constant (control) and a variable and how they need to test only one variable. Here is an example of a controlled experiment.

5. **MODEL THE SCIENTIFIC METHOD:** Give your students an opportunity to do experiments in class that utilize the scientific method. Have them fill out lab reports for any experiment you do so they get practice in identifying the different components of the scientific method.

- Pick experiments that are easy to do, fun, and at the same time exemplify the scientific method.
- Click here for some simple experiments that really get the students' attention.

6. **SET EXPECTATIONS DEADLINES:** Make your expectations clear to your students. Use a calendar and set realistic deadlines for the following:

- **Topic selection**

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- **A proposal for your approval** (if applicable)
This insures students have selected a topic that can be tested and follow the scientific method.
- **Completion of research**
Students cannot create a hypothesis unless they have some background information on which to base it.
- **Statement of hypothesis**
By checking the hypotheses you can tell if you students have actually done research and if they are on the right track.
- **Start and finish dates of experiment**
This helps the students make sure that they have left enough time, especially for experiments that need time (i.e. plant growth).
- **Experiment outline**
This provides an opportunity to see if students are following the scientific method. Have they isolated one variable to test? What are the controls/constants they will use?
- **Lab Report**
This can be handed in separately for teacher approval or it can be made part of display board and/or research paper.
- **Set up of display board**
- **Rough draft and final draft of research paper**(if applicable)

Use your own calendar or make a blank calendar. You can also make a calendar on Print Shop, AppleWorks 6 (Go to "Assistants/Calendar") or Microsoft Word (Go to "Other Documents/Calendar Wizard".) You can create a custom blank calendar for any month (s) of the year at Time and Date.com.

7. WRITE A RESEARCH PAPER: If you require your students to write research paper:

- Make sure the students know what should be in their paper. Direct them to Writing a Research Paper on this site. They will need more extensive information than they did to make the hypothesis.
- Give them guidance in gathering information, note taking, and outlining. Here is an interesting article on teaching note taking: "Reading for Information: The Trash-N-Treasure Method of Teaching Note Taking."
- Let the students know how you want them to cite their sources. Give them a bibliographic form for them to follow, either one your school has devised or a site on the internet.

8. CREATE A RUBRIC: As a class, create a rubric that will be used for assessment of the project and research paper.

If students have input in the design of their assessment tool, they will have a more vested interest in completing a project that meets your expectations.

9. DISPLAY BOARD: Give the students suggestion on how to set up their board. Click here for some guidelines.

It should be stressed that presentation is almost as important as content, even if the projects are

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not being judged. Students experience a great deal of pride and increased self-esteem when they know they are displaying a project that looks great.

On-Line Resources

Many of these sites were used in the development of this web site. Click on each link to take you to the site. The following ones were ones that I particularly liked:

[Brain Pop \(online movies and quizzes related to different science topics\)](#)

[Cyber Fair](#)

[DiscoverySchool.com Science Fair Central](#)

[DiscoverySchool.com Science Fair Handbook](#) (from "A Guide to the Best Science Fair Projects by Janice Van Cleave) - This is a particularly good site and so is the book that it is adapted from.

[DiscoverySchool.com Science Fair Organizer](#)

[Internet Public Library: General Science Links](#)

[The Internet Public Library: Project Resource Guide](#)

[Internet Public Library : Science Net](#)

[Internet Public Library: Science Net/Resources for Teachers and Parents](#)

[Kathy's Schrock's Guide for Educators](#)

These were also very useful:

[The CSMEE Science Fair Companion](#)

[CyberFair](#)

[Education World.com](#)

[Hey Smarty](#)

[Miscellaneous Search Results](#)

[Science Educational Resources](#)

[ScienceFair.org - The Ultimate Science Fair Resource](#)

[Science Fair Experiments](#)

[Science Fair Projects and Ideas](#)

[Science Links](#) (scroll down to also see a list of Teacher Links)

[Science Page](#)

[Scienz Fair](#)

[Yahoo's Lists of Science Fair](#)

Bibliography of science fair related books:

[Available at Amazon.com](#)

[Chicago Public Library](#) (scroll down to book listings)

[Science Project Advisor CD-Rom](#)

Blank forms and letters available on this web site

These forms can be printed out and used in the classroom. You can copy and paste what you need into a word processing document. Please credit this web site if you use any of these forms.

[Bibliographic Format](#)

[Blank Calendar](#)

[Controlled Experiment](#)

[Experiment Plan](#)

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[Hypothesis Statement](#)

[Lab Report](#)

[Letter to Parents](#)

[Project Proposal](#)

[Rubric \(for science fair project\)](#)

[Rubric \(for science fair research paper\)](#)

[Science Fair Project Checklist](#)

[Science Fair Timetable](#)

[The Scientific Method](#)

[Scientific Method Quiz](#)

[Statement of Hypothesis](#)

CLIP ART

These were clip art sites that were used on this web site or ones that you might want to use in your classroom. They contain good educational and science clip art.

[AAA Clip Art](#)

[All-Free Clip Art](#)

[Animation City](#)

[Animation Factory](#)

[Art Today](#) (has clip art searcher)

[Clip Art Guide](#)

[Clips Ahoy - School](#)

[Cool Clips](#)

[GR Sites](#)

[Harry the Cat](#) (animated graphics)

[Hoxie School Clip Art](#)

[Iband](#)

[Icon Bazaar](#)

[Microsoft Design Gallery](#) (has clip art searcher)

[Phyllis's Backgrounds](#)

[School Discovery.com](#)

[School Icons Club](#)

[Teacher Files](#)

[Teacher Net](#)

[Truman School](#) - school graphics

[Tudogs](#)

[Webplaces](#)

CONTACT

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Please feel free to contact me at sandym11@yahoo.com if you need additional information.

Parent Involvement

Parents' involvement in their child's science fair project should be a positive experience for both parents and their children. Parents should guide their students without actually doing it for them. This is your child's project and (s)he will have a greater feeling of self-esteem if (s)he knows that (s)he did it on his/her own. Remember this is a learning experience for your child and you have already gone to school. Hard as it might be, students learn best when they learn from their own successes and failures. Read this [article](#) from the February 7, 2000 issue of U.S. News and World Report for suggestions on what your role should be.

Here are some positive ways in which a parent can help their child:

BE INFORMED: Read the material that comes home from school. Become familiar with the [Scientific Method](#) and other components of a science fair on this web site.

PICKING OUT THE TOPIC: Guide your student in [picking out a topic](#) without actually picking it out for them. The project will be more meaningful if the idea comes from your child. However, you may want to point out the limitations of experiments that may be too difficult to do based on either time restraints or the limitations caused by space, climate, or other external factors. You may also want to guide them if they have picked out a topic that is too broad. [Their topic](#) should be interesting and one that meets their individual learning style. You want your child to think like a scientist and utilize the [scientific method](#). Therefore, their project should be expressed in the form of a question that can be tested by the scientific method.

HELP YOUR CHILD ORGANIZE HIS/HER TIME: Your job is to help your child organize his/her project. Set up a [calendar](#) with realistic deadlines. Remember the experiment might take several weeks to complete. The [display](#) itself also takes some time to put together. If your child has to also do a [research report](#), this may also take some time.

RESEARCH: In order to formalize a hypothesis and complete a [science fair paper](#), your child will have to do research. You may have to make sure they get to the library or supervise their searching on the internet. Make sure that your student puts the information they find in their own words.

CONDUCTING EXPERIMENT: After your child has carefully planned the experiment (s)he will do, make sure your child has all their supplies (s)he will need. Offer support if things don't work out and encourage them to try again, perhaps in a different way but resist the temptation to do it for them. Brainstorm ways to revise the experiment.

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SAFETY FIRST: Try to encourage your child to pick projects that need little parental input. However, you may need to supervise certain experiments especially if heat or sharp instruments are used.

COMPLETION OF PROJECT: Your student might need your "eye" to proofread their display and paper one last time before it is turned in. Make sure you they have already done this on their own before you help them. And certainly, if they ask your opinion as to whether one color goes with another, or what type style still looks better, feel free to offer your opinion (if they ask).

VOLUNTEER IN THE SCHOOL (if applicable): Many schools utilize parent volunteers in actually setting up and taking down the science fair. Look for notes from your school indicating whether they are looking for volunteers or not.

MAKE IT FUN: If you've done all of the above, this project should be a positive experience for your child. Take pictures as (s)he works at home so you have a record of your child's emerging independence as a learner. Remember, an experiment doesn't have "work" for an the project to be successful. As long as your child is learning, even if it is from mistakes, it is a worthwhile project.

Here is a [web site](#) that will give you additional ideas on helping your children.

- www.discoveryeducation.com

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- LETTER TO BE SENT HOME EXPLAINING SCIENCE FAIR

- St. John of God School
November 14, 2011

- Dear Parents and Students,
- Grades 5-8 are invited to participate in our annual science fair. Due to limited space, only class projects will be accepted from students in Grades K-4. The fair will be held on Friday, January 27, 2012. You may enter one of the following projects:
- **Experiment** - a display and an explanation of an experiment which follows the scientific method. Volcanoes will not be accepted.
- **Invention** - a working model which solves a specific problem or makes a job easier to do. Inventions should test a variable and follow the scientific method. Biological and zoological projects are not acceptable.
- Please refer to your Science Fair Handbook for assistance (paper or online). Mrs. Marquez, Mrs. Ontiveros, and Mrs. Guzman are available to help you plan and develop your project. Please make an appointment if you need help.
- All fifth, sixth, seventh, and eighth grade students are **required** to turn in a project. Your science teacher will give you additional instructions on his/her requirements.
- Parents are encouraged to *guide* students, but not build the project. Remember, a good project is planned and developed over a period of time. Start planning now!

Sincerely,
The Science Fair Committee

SCIENCE FAIR REGISTRATION FORM

- NAME _____ GRADE/TEACHER _____

The name of my project will be _____

___ My project needs an electric outlet. ___ My project involves liquid.

- PARENT SIGNATURE _____

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STUDENT PAGE

What do I need to do in order to complete my science fair project?

SELECT A TOPIC: Due November 28, 2011

- Determine your purpose for wanting to know more about this topic.
- Pick a topic that interests you. As you look through [these lists of ideas](#), think about what you like to do or something you want to know more about.
- What are the goals and objectives of your project?
- What relationship does your experiment have to reaching the goals and objective you set?
- You need a pick question that is "testable." You need a [controlled experiment](#).

Testable question (*experiment*): Which type of soda (regular, caffeine free, diet, diet/caffeine free) is the most dense?

Testable question (*invention*): Can you make a chair that won't tip over?

Non-Testable question (*experiment*): What are the different types of rocks?

Non-Testable question (*invention*): How does a telescope work?

Go to [Science Fair Ideas](#) to see a list of many web sites that have lots of ideas.

- GET APPROVAL FROM YOUR TEACHER. Due December 5, 2011
- Print out the [project/topic proposal](#) and submit it to your teacher for approval.
- CREATE A TIMETABLE and CALENDAR. Due December 8, 2011

[Create a timetable](#). You need to get your teacher's requirements and then put your schedule on a calendar. You may use a regular calendar, a [blank calendar](#), or create one in a software program such as Print Shop or AppleWorks, or go to [Time and Date.com](#). You will fill in more after you do your preliminary research and plan your experiment.

- DO YOUR [PRELIMINARY RESEARCH](#) AND CREATE A [HYPOTHESIS](#). Due December 12, 2011

Print out a [Statement of Hypothesis](#) form and fill it out. Turn it into your teacher for approval.

- PLAN YOUR EXPERIMENT. Due January 6, 2012

Make sure you know what a [controlled experiment](#) is. Print out the [science fair experiment plan](#) and submit it to your teacher for his/her approval. Once you have made any necessary changes, you may start your experiment.

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- START YOUR MORE INTENSIVE RESEARCH AND YOUR SCIENCE RESEARCH PAPER. Due January 13, 2012
- CONDUCT YOUR EXPERIMENT AND FILL IN THE LAB REPORT. ANALYZE AT YOUR DATA/RESULTS. WRITE YOUR CONCLUSION. Due January 23, 2012
- PUT YOUR DISPLAY BOARD TOGETHER. Due January 27, 2012

HOW DO I ASSESS MY STUDENT'S WORK?

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ASSESSMENT

Whatever assessment tool you use, students should have a copy of it ahead of time so they know what is expected of them as they work on their project or research paper. In this way, they are aware of these expectations as they design their projects and parents have a guide to help them in assisting their child. Rubrics are a very effective way to assess a student's work, especially if the students have input into their creation. You can look at the project as a whole and grade it appropriately. Half-points can be used to make grading easier and then the numbers can be transferred into grades if necessary by averaging all the point values. An average of 4 = A, 3 = B, 2 = C, and 1 = D. Checklists are also a way of assessing the students work and a quick way to see if the projects have all the required elements. Giving each item on the list a point value makes grading less subjective. Below are some sample rubrics and checklists:

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Science Fair Project Rubric

Student Name: _____

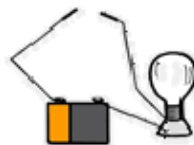
Science Fair Topic/Title _____

1	3	5
<p>Missing many of the following components:</p> <ul style="list-style-type: none"> • Question/Problem • Hypothesis • Experiment: <ul style="list-style-type: none"> ○ Materials ○ Procedure ○ Constants and variable • Analysis of results in form of table, graph, journal sheet, pictures • Conclusion • Lab report or abstract 	<p>Missing some of the following components:</p> <ul style="list-style-type: none"> • Question/Problem • Hypothesis • Experiment: <ul style="list-style-type: none"> ○ Materials ○ Procedures ○ Constants and variable • Analysis of results in form of table, graph, journal sheet, pictures • Conclusion • Lab report or abstract 	<p>Contains all required parts:</p> <ul style="list-style-type: none"> • Question/Problem • Hypothesis • Experiment: <ul style="list-style-type: none"> ○ Materials ○ Procedures ○ Constants and variable • Analysis of results in form of table, graph, journal sheet, pictures • Conclusion • Lab report or abstract
<p>Data is neither clear nor neatly displayed in visuals Visuals don't relate to topic, aren't large enough, lacking captions</p>	<p>Data is neither clear or neatly displayed in visuals: Visuals don't relate to topic or aren't large enough or lacking captions</p>	<p>Data is clearly and neatly displayed in visuals Visuals relate to topic, are large enough to see, and have captions</p>
<p>Project is done in messy and careless manner: no attention is paid to detail; too much white-out cross-outs, crooked writing, done in pencil</p>	<p>Project is somewhat neatly done : some attention is paid to detail; some white-out cross-outs, crooked writing, may be done in pencil</p>	<p>Project is neatly done; creative and organized, great deal of attention is paid to detail; writing or word processing is neatly done; pen, markers and rules are used</p>
<p>Project is poorly written and difficult to understand:</p> <ul style="list-style-type: none"> • Writing is unfocused and off topic • Grammar is poor; many punctuation, grammar and spelling errors • No evidence of proofreading and editing 	<p>Parts of project are difficult to understand:</p> <ul style="list-style-type: none"> • Writing is not completely focused on topic • Difficult to follow because of sentence and paragraph structure • Some evidence of proofreading and editing 	<p>Project is well-written:</p> <ul style="list-style-type: none"> • Focused and on-topic • Good grammar, spelling and punctuation • Good sentence structure • Evidence of proofreading and editing
<p>Oral presentation demonstrates poor knowledge of topic</p>	<p>Oral presentation demonstrates fair knowledge of topic</p>	<p>Oral presentation demonstrates good knowledge of topic</p>

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Science Fair Project Evaluation Checklist



Student name _____

Project title _____

This project contains the following components (a check indicates that it was evident):

- Problem in form of question
- Hypothesis
- A brief statement of research that supports hypothesis
- Materials
- Procedures
- Results/Data (in form of table, graph, photographs, journal sheet, pictures)
- Conclusion
- Does the science fair project demonstrate the question or problem?
- Is the science fair project neatly done?
- Other:

Comments:

Grade _____

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SCIENCE FAIR JUDGING SHEET

Creativity

Does the student demonstrate curiosity? 4 3 2 1 0

Does the project or display demonstrate ingenuity in the design and development of the project? 4 3 2 1 0

Has the student shown creativity in the design of the display? 4 3 2 1 0

Scientific Thought

Is the topic or problem an appropriate subject for scientific investigation? 4 3 2 1 0

Is the problem stated clearly? 4 3 2 1 0

Is it sufficiently narrow? 4 3 2 1 0

Is the method of investigation appropriate to the problem? 4 3 2 1 0

Have variables been eliminated, controls been made and results been double-checked? 4 3 2 1 0

Does the data collected justify the conclusion made? 4 3 2 1 0

Thoroughness

Is the project the result of careful planning? 4 3 2 1 0

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Does the project indicate a thorough understanding of the chosen topic?	4	3	2	1	0
Is all information accurate?	4	3	2	1	0
Does the notebook sufficiently document the student's work?	4	3	2	1	0
Has sufficient data been collected?	4	3	2	1	0
Does the display represent a complete story?	4	3	2	1	0
Skill					
Does the project reflect the student's own work?	4	3	2	1	0
Is the project sturdy and well constructed?	4	3	2	1	0
Is all equipment used within the student's level of understanding or expertise?	4	3	2	1	0
Does the project meet safety requirements?	4	3	2	1	0
Clarity					
Is the project self-explanatory? Can the average person understand it?	4	3	2	1	0
Are all lettering, signs, and diagrams neat and accurate?	4	3	2	1	0
Are lettering, signs and diagrams appropriately used or do they clutter or confuse?	4	3	2	1	0
Are visual aids an asset to understanding the project or do they clutter or confuse?	4	3	2	1	0

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	Totals:
Interview Score Separately - up to 20% of end score	
Notes:	

Excellent = 4; Good = 3; Partial = 2; Attempt made = 1; Absent = 0

Science Fair Project Evaluation Rubric

Student Name _____ Date: _____
Title of Project _____

I. Research

A. Process

10

1. Topic selection: goals and objectives
2. Development of subtopic outline
3. Research notes
4. Rough draft
5. Science Fair notebook notes

B. Research Paper

30

1. Simple plastic cover
2. Title page
3. Dedication
4. Table of Contents
5. Purpose/Introduction
6. Content
 - a. Includes all background research
 - b. Surveys, graphs, etc.

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- c. Additional charts, pictures, visuals
- 7. Scientific testing information
- 8. Conclusion
- 9. Bibliography
- 10. Proofread

C. Experiment Using the Scientific Method **35**

- 1. Does the experiment reflect a question to be answered?
- 2. Hypothesis
- 3. Procedure
- 4. Materials
- 5. *Data Collection: displayed with graphs, charts, journal, record of observations, etc.
- 6. Results and conclusion

II. Display Board

- A. Title name, date and class on display board **15**
- B. Purpose
- C. Scientific process displayed
- D. Overall presentation: neat, creative, organized
- E. Edited for mechanics of grammar, punctuation, spelling, etc.
- F. Completeness: contains evidence of all components of scientific method
- G. Use of visuals: graphs, pictures, models, etc.

III. Oral Presentation

- A. Communicates clearly **10**
- B. Reflects preparation
- C. Faces audience with poise & eye contact
- D. Projects voice, displays enthusiasm
- E. Answers questions confidently

Do you think you achieved your Science Fair goals? Please explain.

Comments: (Teacher or Parents)

Science Fair Research Paper Rubric

Student Name: _____
 Science Fair Topic/Title _____

1	3	5
Project is more than two days late	Project is one day late	Project is on time
Cover is uninteresting and irrelevant to topic, sloppily done and not appealing to reader	Cover is somewhat interesting and relevant to topic, neatly done and appealing to reader	Cover is interesting and relevant to topic, neatly done and appealing to reader
Missing many of the required parts: <input type="checkbox"/> Cover <input type="checkbox"/> Title Page <input type="checkbox"/> Dedication <input type="checkbox"/> Table of contents	Missing some of the required parts: <input type="checkbox"/> Cover <input type="checkbox"/> Title Page <input type="checkbox"/> Dedication <input type="checkbox"/> Table of contents	Contains all required parts: <input type="checkbox"/> Cover <input type="checkbox"/> Title Page <input type="checkbox"/> Dedication <input type="checkbox"/> Table of contents <input type="checkbox"/> Purpose (opening)

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<input type="checkbox"/> Purpose (opening) <input type="checkbox"/> Content (the three subtopics you researched) <input type="checkbox"/> Closing <input type="checkbox"/> Illustrations <input type="checkbox"/> Bibliography	<input type="checkbox"/> Purpose (opening) <input type="checkbox"/> Content (the three subtopics you researched) <input type="checkbox"/> Closing <input type="checkbox"/> Illustrations <input type="checkbox"/> Bibliography	<input type="checkbox"/> Content (the three subtopics you researched) <input type="checkbox"/> Closing <input type="checkbox"/> Illustrations <input type="checkbox"/> Bibliography
Paper is totally out of order	Paper is somewhat out of order	Paper is in correct order
Many sections of report are not clearly marked and do not start new page	Some sections of report are not clearly marked or start new page	Each section of report is clearly marked and starts new page
Title page, table of contents and bibliography have many mistakes in format	Title page, table of contents and bibliography have some mistakes in format	Title page, table of contents and bibliography follow correct format
Only one resource used	Two resources used	Three or more resources used
Much information is inaccurate and irrelevant	Information is somewhat accurate and relevant	Information is accurate and relevant
Project is done in messy and careless manner: no attention is paid to detail; too much white-out cross-outs, crooked writing, done in pencil	Project is somewhat neatly done : some attention is paid to detail; some white-out cross-outs, crooked writing, may be done in pencil	Project is neatly done; creative and organized, great deal of attention is paid to detail; writing or word processing is neatly done; pen, markers and rules are used
Project is poorly written and difficult to understand: <ul style="list-style-type: none"> • Much evidence of copying • Writing is unfocused and off topic • Grammar is poor; many punctuation, grammar and spelling errors • No evidence of proofreading and editing • Much of report is illegible 	Parts of project are difficult to understand: <ul style="list-style-type: none"> • Some evidence of copying; • Writing is not completely focused on topic • Difficult to follow because of sentence and paragraph structure • Some evidence of proofreading and editing • Some parts of report are illegible 	Project is well-written: <ul style="list-style-type: none"> • Written in own words in interesting style • Focused and on-topic • Good sentence structure
Little evidence of proofreading and editing <input type="checkbox"/> Illegible; not neatly typed	Some evidence of proofreading and editing <input type="checkbox"/> Somewhat legible; typed	Evidence of proofreading and editing <input type="checkbox"/> Legible; neatly typed (12 or

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<p>(12 or 14 font, double spaced) or written in pen cursive</p> <ul style="list-style-type: none"><input type="checkbox"/> Many grammar, spelling and punctuation errors	<p>(12 or 14 font, double spaced) or written in pen cursive</p> <ul style="list-style-type: none"><input type="checkbox"/> Some mistakes in grammar, spelling and punctuation	<p>14 font, double spaced) or written in pen cursive</p> <ul style="list-style-type: none"><input type="checkbox"/> Good grammar, spelling and punctuation
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