

Griffin Elementary School



Science Fair Project Booklet Intermediate Grades 3 - 5

Student Name _____

Teacher _____

Grade Level _____

Table of Contents

Introduction.....	3
Rules and Regulations.....	4
Project Components.....	5
• Notebook	
• Title	
• Table of Contents	
• Statement of Problem	
• Background Information	
• Hypothesis	
• Materials	
• Procedure/Experiment (Variables and Controls)	
• Data and Observations	
• Conclusion	
• Recommendations	
• Acknowledgements	
• Bibliography	
Example Display Board.....	9
Scoring Rubric.....	10
Vertebrate Animal Verification Form.....	11
Certificate Human Subject.....	12
Choosing a Topic.....	13
Project Topic Websites.....	17



Science Fair Projects

Intermediate (Grades 3 – 5)

INTRODUCTION:

Students in the elementary schools need to become science literate and proficient in order to compete and survive in a rapidly changing, highly technical world. Teaching students how to do science projects can develop processing skills and problem solving techniques. From learning how to set up an experiment in the primary grades to solving science problems in an organized manner in the intermediate grades, students learn skills that will help them in everyday life.

In order to prepare students for the future and to maintain high academic standards, it is strongly recommended that the procedures set forth in this booklet be followed. All students submitting science projects are requested to comply with the rules and regulations set forth. These rules and regulations correlate with National Standards.

As part of the science curriculum in the intermediate grades, teachers instruct students in the scientific process. Teachers will instruct students on every aspect of the scientific method and what is required for individual projects. All students in grades 3 – 5 are required to complete an individual science project. Students in grades K – 2 are encouraged to complete an individual project. Classroom teachers are also encouraged to submit a class project to the school's science fair for everyone to enjoy.

All individual projects will be displayed at Griffin Elementary Schools' Science Fair and **judged** by a minimum of two evaluators. The average score will be given for each project and awards will be presented to the top projects in each grade level. The "best of the best" will be entered into the Cooper City Innovation Zone Science Fair, which will be held at Cooper City High School at the beginning of the second semester.

Most of the information you need is contained in this packet. If you have questions, please contact your child's teacher. Thank you for your participation in this worthwhile educational opportunity.

RULES AND REGULATIONS

These rules and regulations, which are adapted from the State and National Science Fair Rules, must be followed to ensure everyone's safety, and to teach students how to properly do a science project. These rules and regulations apply to all grade levels. The Rules and Regulations will be posted on the school's website and will be available in limited supply in the school's main office for those families who do not have Internet access. Only those projects that comply with these standards will be selected for entry into the school and/or Zone Science Fair. It is the responsibility of the entrant's teacher, parent, and school's science contact person (Mrs. Senarens (karen.senarens@browardschools.com)) to ensure that all projects exhibited follow the rules and regulations set forth in this booklet.

WHO SELECTS PROJECTS TO BE DISPLAYED?

The teacher and the zone science committee will be responsible for evaluating projects to be displayed at the school's science fair. Science fair guidelines and judging criteria (attached) described in this booklet will be used to select projects.

WHAT TYPES OF PROJECTS CAN BE DISPLAYED?

Class projects, individual projects, may be displayed. However, for purposes of judging, only individual projects will be scored and eligible for awards. The attached rubric will be used to judge individual projects. Product comparison projects are permitted for school projects but will not be forwarded to the zone science fair.



WHAT ITEMS MAY NOT BE DISPLAYED?

Chemicals, rubber bands, noxious gases, glass containers, open flames, liquids, foods, explosives, animals, plants, sharp and/or pointed objects, and drugs may not be displayed. **Also, pictures of people's faces may not be displayed on the project.**

ANIMAL RELATED PROJECTS

The study of animals by elementary school students under qualified adult supervision is important for learning about the life sciences and for encouraging an interest in careers related to the life sciences. Animal projects must include a concern for the humane and proper treatment of all animals. Elementary School students may only do animal "observation" projects. An example of such a project might be, "Which Color Feeder Attracts Birds the Most?" Students may hang different colored bird feeders in the yard and observe which feeder birds are attracted to the most. Observing the sleeping, eating and playing habits of hamsters and other pets are other animal observation projects that students may do.



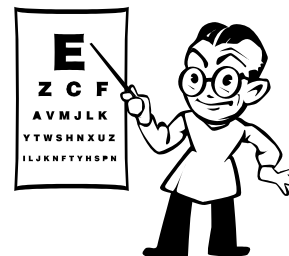
A **vertebrate animal verification form (attached)** must be completed prior to initiation of the project, approved by the teacher and the school's science fair coordinator and must be attached to the back of the show board. It is the responsibility of the parent and school to insure against inhumane treatment of animals. For example: Fish cannot be removed from water even for a short period of time. The temperature of the fish tank or container cannot be drastically increased or decreased. In other words, the water cannot be frozen, boiled, or changed in any way to cause stress to the fish. Please understand that any project that does not follow the

expectations listed above will not be accepted or displayed in the science fair.

HUMAN EXPERIMENTATION

Experiments with human subjects will be permitted provided that the human subjects are not subjected to any physiological or psychological stress. The **human subject verification form (attached)** must be completed prior to initiation of the project, approved by the teacher and the school's science fair coordinator and must be attached to the back of the show board.

A copy of the Human Experimentation Form is included in this booklet.



SURVEYS

Surveys are acceptable providing they follow these guidelines:

- a. No personal questions that involve invasion of privacy are acceptable.
- b. Permission slips signed by parents are required for those students who participate in surveys related to the tasting of foods and/or drinks. (See attachments).

PROJECT COMPONENTS

THE NOTEBOOK

Scientists record the information that they obtain when doing research and experiments so that they have a record of everything that has happened. The notebook will contain a title page, table of contents, background information, hypothesis, list of needed materials, procedure for doing the experiment, data collected, conclusions(s), recommendations, acknowledgments, a bibliography, and other pertinent information that the student wishes to include. Pictures of the students, parents, etc. are "**not**" permitted in the notebook or anywhere on the display board. The following is a step-by-step set of directions for students to follow to help them to learn the scientific method of investigation.

TITLE

There is no specific way in which the title page of the project is to be written. Sometimes it is a declarative statement and sometimes it is in the form of a question. The student may use his/her creative abilities to produce a catchy title. Illustrating or decorating the title page is permissible and encouraged. Do not list the teacher's or student's name on this page.

TABLE OF CONTENTS

The Table of Contents will need to be done after the project is completed. However, in the notebook it comes directly after the title page. All parts of the project should be included in the Table of Contents.

STATEMENT OF THE PROBLEM

The Statement of the Problem tells what the project is going to solve. It may be stated in the form of a question. For example, a student wanted to test if all Band-Aids had the same amount

of “stickiness.” The title of the project could be, “A Sticky Situation”. The Statement of the Problem may have been, “Do All Band-Aids Have the Same Amount of Stickiness?”

BACKGROUND INFORMATION

Students will need to research their chosen topic. Books, encyclopedias, computer programs, internet sites, newspapers, magazines, interviews and information from organizations and institutions are resources that students can use to obtain needed information. Preparing an outline gives the student an organized way of gathering and recording facts. Note taking prevents copying word for word. The more information obtained, the easier it will be to form a hypothesis and to carry out the experiment. If the language appears to be not age appropriate, the researcher will not gain the maximum amount of credit for that section. Refer to Bibliography section below.

HYPOTHESIS

The hypothesis is an educated guess based on information gathered about the particular topic. It should be written using an if/then statement such as: If magnets attract iron, then only those objects that contain iron will be attracted to magnets. It can also be stated as: I think that magnets will attract only those objects that have iron in them because from what I have read, magnets are attracted to iron.

MATERIALS

Make a list of all the materials you need. Try to use inexpensive materials. Check the garage, closets, and cupboards for objects that can be used. Have teachers or parents approve these materials before using them in the experiments. Include the quantity needed (example: 4 paper cups, 3 tablespoons water). Be thorough!

PROCEDURE/EXPERIMENT

The procedure for carrying out the experiment must be written. The procedure is a step-by-step set of directions on how to do the experiment. It is like a recipe. It must be written in such a way that a person repeating the experiment will know exactly what to do to be able to get the same results. Write down what was done first, second, etc. Be sure that the directions are clear.

The student should design an experiment, which will fulfill the purpose of the project and test the hypothesis. In an experiment, comparisons are necessary. Be sure to have appropriate variables.

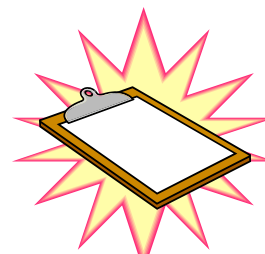
VARIABLES

In an experiment, everything should be the same each time you test, except the one variable you are testing.

The item or factor in your experiment that is changed on purpose in order to test it, is called the independent variable. The measured outcome that occurs in response to your change is the dependent variable.

For example, if experimenting with fertilizers to determine their effect on plant growth, the following is an example of what you could do:

1. Place 6 or more plants in an area in your house or class so that all plants receive the same amount of light (controlled



- variable).
2. Water each plant with the same amount of water (controlled variable).
 3. Add the same amount (controlled variable) of fertilizer (independent variable) to 3 plants.
 4. Leave the other 3 plants unfertilized; these will be the control group.
 5. Measure the rate of growth (dependent variable) of all plants.

Water and light are the controlled variables/constants in your experiment. The fertilizer is the independent variable. The measured amount of growth is the dependent variable. A good experimental design should test only one variable at a time. A log or diary should be used to record the data obtained from the experiment.

When setting up an experiment make sure to do the following:

- Have all materials ready.
- Follow the procedure exactly as written.

Remember that in order for the experiment to be meaningful, the experiment should be repeated a minimum of 2 times (**however, three or more are encouraged**).

DATA AND OBSERVATIONS

Data is the name given to the information obtained during the experiment. The way in which data is recorded is very important. Record the data using charts, graphs, tables, pictographs, logs, photographs, written observations, or anecdotal records. The more data there is, the more accurate the conclusion will be. Doing an experiment just one time does not give sufficient information to draw a conclusion. Therefore, each trial should be documented in the data. Repeated trials are highly recommended. Note: Scientific measurements are typically conducted using the metric system.

CONCLUSION

Once the information and data have been analyzed, a conclusion can be written. In the conclusion, the project is summarized and evidence is given to support or reject the original hypothesis. If the data collected does not support the hypothesis, the student should not consider the experiment a failure. Part of the conclusion then would be to try to explain why the data did not support the hypothesis.

RECOMMENDATIONS

If this experiment were to be done again, what should be done differently? What new ideas have come from this project? Did the experiment need more trials? Should the study be continued?

ACKNOWLEDGEMENTS

This part of the project gives the student the opportunity to thank all of the people who helped with the project. The student should state what the person did to help with the project.

BIBLIORAPHY

This portion of the project lists all of the resources that were used to gather information about the topic. These resources are written in an organized manner. The proper way to cite references in a bibliography is listed below.

If more than one resource is used, they must be listed in Alphabetical Order according to the author.

MOVIE, FILM, LASER DISC, VIDEO

"Title", series name if known, publisher, city, copyright date.

ENCYCLOPEDIA

"Title of article", name of encyclopedia, volume number, publisher, city published, copyright date, page numbers.

JOURNAL

Author's last name, author's first name. Journal title, Title of Article, Volume, Page Numbers, Publisher, city published, date, (if the journal is only about one topic, do not add page numbers).

BOOK/PAMPHLET

Author's last name, Author's first name. Book/Pamphlet Title, Volume, Page Numbers, Publisher, city published, date, (if the book/pamphlet is only about one topic, do not add page numbers). If the book/pamphlet is about many topics, add page numbers after the date.

INTERVIEW

Name of person (last, first) title of person, company the person works for or what the person does, where the interview took place, date of interview.

WORLD WIDE WEB

Author (if known). "Title of page or document". Title of site or larger work (if applicable). Date of document. Online.http/www.address/filename. Date of access.

E-MAIL

Author of e-mail message. "Subject line of message". E-mail to recipient's name. Date of message.

ONLINE ENCYCLOPEDIA

Author. "Title of Article". Title of Reference Work. Title of the Database of Online Service. Date of access.



CD-ROM (PERIODICAL)

Name of author (if available). "Title of article". Publication information for printed source. Title of database. Publication medium (CD-ROM). Name of Vendor (if relevant). Electronic publication date.

CD-ROM (NONPERIODICAL)

Name of author (if given). "Title of part of work". Title of Product, Edition or Release (if relevant). Publication medium (CD-ROM). City of Publication: Publisher, Year of Publication.

AN EXAMPLE OF THE DISPLAY BOARD

Hypothesis	Title	Pictures
Conclusion	Statement of Problem	Variables
Recommendations	Background Information	Materials
	Data / Graphs	
	Procedures	
	Acknowledgements	

No names should appear on the display board. Also, the layout of the required items on the board is the decision of the individual scientist.

The display is an organized and creative way of showing the work that was done on the project. The display contains a summary of the process steps. The Title and Statement of the Problem may be displayed using precut letters or letters designed by the student. The Background Information will be a summary of the research. It may be mounted on colorful construction paper and attached to the board. The total research paper will be kept in the notebook. Display a copy of the Hypothesis, Procedure, Materials, Data and Observation Charts, Conclusion, Recommendations, Acknowledgements, and Bibliography. These should be mounted on colorful construction paper. Include pictures (no faces of people) and graphs, or anything else the student wishes to display pertaining to the project.

Keep in mind that the display board and the notebook compliment each other and both must be submitted.

A display board is required for entry in the science fair. Each classroom will be provided one display board to exhibit a class project. A display board will be provided to individual students for the purpose of completing an individual project. Display boards are also available in many supermarkets, school supply stores, and art stores. Poster board or any other material that is not strong enough for the project to be freestanding should not be used. Wood, pegboard and cardboard boxes are all acceptable materials from which a display board may be constructed. Individual display boards must be no bigger than 48" wide and 36" high. They may be smaller than these measurements.

Finally, please remember that pictures of the child completing the project are not permitted on the show board or in the notebook. This is to insure the project remains anonymous and is judged on content and presentation only.

Griffin / Zone Science Fair
Individual Project Scoring Rubric
Intermediate (Grades 3 – 5)

Project Number: _____ **Title:** _____

- Hypothesis: Is the hypothesis clearly stated? **Score (0 - 5)** _____
- Conclusion: Does it support or reject the hypothesis? **Score (0 – 5)** _____

1. **Creative Ability (Possible 20 points)** _____ **Score (0-20)** _____

- a. Are there elements of originality in the project?
- b. Is the student's approach and/or method utilized in solving the problem unique?
- c. Is the student's method of collecting data and/or use of equipment unique?
- d. Is there practical value of the project?

2. **Scientific Thought (Possible 30 points)** _____ **Score (0-30)** _____

- a. Has the student chosen a real problem to investigate?
- b. The scientific method was followed (observation, hypothesis, test and conclusion).
- c. Experiments were repeated often enough so that data is accurate.
- d. The student's data is displayed and logical conclusions are drawn from the collected data.

3. **Thoroughness (Possible 15 points)** _____ **Score (0-15)** _____

- a. There is evidence that thought, study, and effort went into this project.
- b. Does the overall project demonstrate orderliness and accuracy?
- c. Is the time the student spent appropriate for the project?
- d. Does the student have a thorough research report?
- e. Is the project complete? Does it appear to have been done "last minute"?

4. **Skill (Possible 15 points)** _____ **Score (0-15)** _____

- a. Has the student demonstrated appropriate skills required for obtaining the data?
- b. Did the student carry out the project independently with minimal help from an adult?
- c. Are the arrangement and design of the exhibit clear and well presented?
- d. Does the written material show attention to grammar and spelling?
- e. Is the project appropriate for the child's grade level?

5. **Clarity (Possible 10 points)** _____ **Score (0-10)** _____

- a. Are the student's purpose, procedure and conclusion presented clearly and orderly?
- b. Are the student's written material, research, and **notebook** clearly written and organized?
- c. Is the student's overall physical display neat, well constructed, and easy to read?

TOTAL: _____ **Possible 100** _____

Notebook: Projects must have a notebook containing the items described in this packet.

Comments:

VERTEBRATE ANIMAL VERIFICATION FORM

THIS FORM MUST BE COMPLETED FOR ALL RESEARCH INVOLVING VERTEBRATE ANIMALS PRIOR TO THE INITIATION OF THE PROJECT. NO PROJECT MAY BE DONE WHICH MANIPULATES THE BASIC NEEDS OF ANIMALS SUCH AS FOOD, SHELTER, AND WATER, SO AS TO CAUSE STRESS.

Any project involving vertebrate animals must have the approval of the school's science fair contact person, parental consent and supervision.

(Print or type)

Student: _____

School: _____

Date: _____

Brief Description: _____

I, _____

do state that I have complied with the Florida State Statutes – Chapter 85-70, which prohibits projects involving experimentation, which results in physical or psychological stress in vertebrate animals.

APPROVED _____
(Science Contact Person)

(Teacher)

(Parent Signature)

This form should be approved by the teacher and the science fair coordinator and attached to the back of the child's science fair show board.

CERTIFICATION – HUMAN SUBJECT

THIS FORM MUST BE COMPLETED FOR ALL RESEARCH INVOLVING HUMANS PRIOR TO THE INITIATION OF THE PROJECT. ANY PROJECT INVOLVING TASTING OR DRINKING OF FOODS MUST HAVE A SIGNED PERMISSION SLIP FROM THE PARENT OF THE STUDENTS PARTICIPATING INDICATING THAT THE PARTICIPANT IS NOT ALLERGIC TO THE FOODS BEING SURVEYED. SURVEYS THAT REQUIRE QUESTIONS THAT INVADE PERSONAL PRIVACY ARE NOT ACCPETABLE.

(Print or type)

Student: _____

School: _____

Date: _____

Title of Project: _____

Brief Description: _____

I, _____ state that no stress, physical or psychological
(Student Signature)
 harm will occur to human subjects participating in my project.

APPROVED _____
(Science Contact Person)

(Teacher)

(Parent Signature)

This form should be approved by the teacher and the science fair coordinator and attached to the back of the child's science fair show board.

CHOOSING A TOPIC

A good topic has a problem that can be answered only by experimenting. If a topic is broad or general, then too many factors (variables) will exist that cannot be controlled. The researcher will find it difficult to produce reliable results. There is no one source of ideas for projects; an idea can come in various ways and from many sources. Conferences and conversations with teachers, scientists and other students are sources of suggestions. Ideas can also be found online or from listings of previous projects, from reports of previous fair winners, from articles in magazines and from newspaper stories. Books and periodicals are a fertile source of ideas for projects. An idea can begin with a statement in an article, a question or a reference that causes you to wonder why or why not and motivates you to investigate the problem further. Your topic may fit into one of the following categories. Product comparison projects are permitted for school projects but will not be forward to the Zone Science Fair.

ANIMAL STUDIES

- Does an earthworm react to light and darkness?
- Does surrounding color affect an insect's eating habits?
- Do different kinds of caterpillars eat different amounts of food?
- How do mealworms react to various surfaces?

COMPARATIVE STUDIES

- Which lubricants make a car travel faster down a ramp?
- What factors affect the growth of bread mold?
- What type of oil has the greatest density?
- Which type of sunglass lens blocks the most light?
- Which materials keep ice cubes from melting for the longest time?
- Which amount of air space is the best insulator for storm windows?

CONSUMER TESTING (Not Recommended)

- Which brand of popcorn pops the most kernels?
- Which brand of popcorn pops the fastest?
- Which type of cleaner removes ink stains best?
- Which brand of soap makes the most suds?
- Which plastic trash bag is the strongest?
- Which houseplant fertilizer works best?
- Which brand of disposable diaper absorbs the most liquid?

HUMAN STUDIES

- Can you tell time without a watch or clock?
- Is using two eyes to judge distance more accurate than using one eye?
- Do boys or girls have a higher resting heart rate?
- Do taller people run faster than shorter people do?
- Who can balance better on the balls of their feet – boys or girls?
- Does exercise affect heart rate?
- Does the human tongue have definite areas for certain tastes?
- Does heart rate increase with increasing sound volume?
- Can you see better if you limit the light that gets to your eye?
- How accurately do people judge temperature?
- How does coffee affect blood pressure?

PLANT STUDIES

- What percentage of seeds in a package will germinate?
- How much of an apple is water?
- Does a plant need some darkness to grow?
- What are the effects of chlorine on plant growth?
- How does light direction affect plant growth?
- Do different types of soil hold different amounts of water?
- Will adding bleach to the water of a plant reduce fungus growth?
- Does sugar prolong the life of cut flowers?
- How much of an orange is liquid?
- Does the color of light affect plant growth?
- Do plants grow bigger in soil or water?
- How much weight can a growing plant lift?
- Does it matter in which direction seeds are planted?
- What plant foods contain starch?

PHYSICAL SCIENCE

- Which liquid has the highest viscosity?
- Will more air inside a basketball make it bounce higher?
- Do all colors fade at the same rate?
- Does a baseball go farther when hit by a wood or metal bat?
- What kind of glue holds two boards together better?
- Can you use a strand of human hair to measure air moisture?
- How far can a water balloon be tossed to someone before it breaks?
- Does the shape of a kite affect its flight?
- What gets warmer faster – sand or soil?
- In which way does the wind blow most frequently?
- Will a ball bounce higher if it is dropped at a greater distance from the floor?
- Do sugar crystals grow faster in tap water or distilled water?
- What common liquids are acid, base or neutral?
- What determines how fast a piece of candy dissolves?
- Which type of line carries sound waves best?
- Which metal conducts heat best?
- Can same-type balloons withstand the same amount of pressure?
- Does the viscosity of a liquid affect its boiling point?
- What materials provide the best insulation?
- Which keeps things colder – plastic wrap or aluminum foil?
- Do liquids cool as they evaporate?
- Does the size of light bulb affect its energy use?
- How long a distance can speech be transmitted through a tube?
- Does the color of a material affect its absorption of heat?
- Does sound travel best through solids, liquids or gases?
- Is the amount of erosion affected by the slope of land?
- How much heat does a closed automobile absorb?

WATER

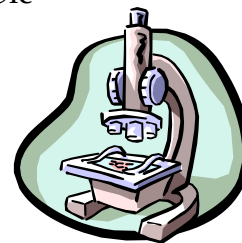
- Does baking soda lower the temperature of water?
- Does the color of water affect its evaporation?
- Can you separate salt from water by freezing?
- Will water with salt evaporate faster than water without salt?
- What type soil filters water best?
- What types of bacteria are found in tap water?

OTHER SCIENCE FAIR PROJECT IDEAS

- Which liquid freezes most quickly?
- Does color affect the rate at which an ice cube melts?
- Through which materials will magnetism pass?
- Does the shape of an ice cube affect its melting rate?
- What can you do to make a toy parachute fall more slowly?
- Which brand of popcorn makes the largest yield?
- Does color affect the evaporation rate of water?
- Do bigger seeds make bigger plants?
- Do bigger wheels roll faster?
- Does the type of soil affect plant growth?
- Which liquid dissolves pills faster?
- Does color affect heat absorption?
- Does the design of paper airplanes affect the distance they will fly?
- Does temperature affect germination of seeds?
- Which liquid evaporates most quickly?
- Does the color of a birdhouse affect feeding habits of birds?
- Do vitamins affect the germination of seeds?
- Does the kind of water absorbed by seeds affect germination?
- Does music affect plant growth?
- Does temperature affect crystal formation?
- Does temperature affect mold growth?
- What is the most effective way to get rid of stains in clothes?
- Which age group has the best memory?
- What do elementary students fear the most?
- Do the phases of the moon affect germination?
- How does the growth of plants under incandescent lighting compare to the growth of plants under fluorescent lighting?
- Does magnetism affect plant growth?
- Does music affect the time it takes children to put a puzzle together?
- Which shampoo is best for your hair?
- How does over population affect the behavior of an ant colony?
- What foods attract different insects?
- Through which materials will magnetism pass?
- Does the way food is stored affect its freshness?
- Does temperature affect germination of seeds?
- Does temperature affect the way ants behave?
- Does color affect peoples ides about the taste of food?
- Do the moon phases affect the way children perform in school?...or behave in school?
- Which materials are effective conductors?
- Do sounds affect the behavior of crickets?
- Does music or sound affect sleep or the time it takes to sleep?
- Which shampoo is best for your hair?
- Which leaves, berries, flowers, or vegetables make the best dyes for cloth?
- Which whitener works best?
- Which toothpaste is best for your teeth?
- Are the same insects attracted to traps placed at different heights above ground?
- Does human hair affect the growth of plants?
- Which type of plant grows best under artificial lights?
- Does temperature affect capillary action in celery plants or carnations?
- How does rotation affect plant growth?

Does the amount of salt in water affect the boiling temperature of water?
What kind of light bulbs last longest and is cheapest?
What metal is the best conductor of heat?
Which plastic zip-lock bag brand is the most secure container?
What is the best method of disposing of plastic garbage bags?
What is the effect of light and temperature on bread molds?
Which household kitchen wrap is best to protect against leakage?
Is there a difference in short term memory skills between males and females?
Does color affect the short term memory of a list of words?
How much information do people recall after memorizing a list?
Does background music have an impact on memory?
Which fast-food burger contains the least grease?
Does photosynthesis take place when there is no light?
How much light do plants need to survive?
What is the effect of temperature on the rate of photosynthesis?
Would soapy water harm or help seed sprouting plant growth?
Does the starting temperature of water affect how long it will take to freeze?
Which bat hits the ball the farthest, aluminum or wood?
What is the best shape or design for a boomerang?
How does the tail affect the flight of a kite?
Does the color of an object determine how much heat it absorbs from sunlight?
Does the color of a liquid contribute to its ability to absorb heat?
Does temperature affect how much salt or sugar can be dissolved in water?
Does surface area affect the evaporation rate of liquids?
Which temperature of water helps detergents remove stains best?

Thank you in advance for making this year's science fair experience enjoyable and a memorable experience. Remember to allow plenty of time to complete the project (a minimum of 4 weeks) and make sure to present your results on an organized display board with an attached notebook. The students, parents and staff are excited to see what topic you researched and how you went about proving or disproving the hypothesis. Enjoy the fun! Now go and experiment!



Project Topic Websites

<http://school.discoveryeducation.com/sciencefaircentral/>

<http://www.sciencebuddies.org/>

http://resources.kaboose.com/kidslinks/science/science-fair/Science_Fair.html

<http://www.all-science-fair-projects.com/>

<http://www.science-project.com/>

<http://scienceclub.org/scifair.html>

<http://members.ozemail.com.au/~macinnis@ozemail.com.au/scifun/projects.htm>

<http://www.sciencemadesimple.com/>

<http://www.kids-science-experiments.com>

<http://scienceprojectideasforkids.com/>

<http://www.stevespanglerscience.com/experiments/>