

SCIENCE FAIR PROJECT DIRECTIONS



Kindergarten Through Fifth Grade

Project Begins: January 6, 2012

Projects Due: February 15, 2012

Science Fair: February 23, 2012

January 6, 2012

Dear Parents,

Your child will be taking part in a science fair homework project, an exciting event that encourages students to think like young scientists. During the next few weeks your child will be designing a science project that uses the scientific method to solve a problem. Doing a science fair project will stimulate imagination and independent thinking, increase knowledge in many areas, enable the use of the processes of science, train students in the organization and completion of major tasks, and provide children with an opportunity to enjoy science.

Harbins Science Fair will be held on Thursday, February 23rd. This project will be completed at home and is due on February 15th. There will be a reminder sent home about when and where to bring students projects to school. **Please remember projects may not be transported on the bus.** Arrangements should be made to transport the project to school and home from school the evening of the science fair. **DO NOT PUT NAMES ON PROJECTS OR LAB BOOKS, USE THE INCLUDED ATTACHED NUMBERS ONLY.**

We ask that you encourage your child and monitor his or her progress along the way. Your support is key to a successful project, but please do not allow your involvement to extend any further in order to assure equity and promote student learning. It is important that your child wrestle with problems and try to solve them. Guide your child wherever and whenever you can, but let the final project reflect your child's individual effort and design.

We have attached a step-by-step method to help your child complete their science fair experiment and also a scoring sheet so the students can see what we are looking for in each category and what will be displayed at the fair (Display board and Log Book).

NOTES:

*The students may do any project that does **NOT** involve dangerous substances or cruel or inhumane treatment of animals or humans.*

No project may be done using poisonous animals, blood, live disease carrying organisms, dangerous chemicals, explosives, unsafe electrical work, illegal or poisonous substances, or any other condition judged to be unsafe, if used it will result in an elimination of the project.
SCIENCE SAFETY RULES MUST BE FOLLOWED!!!

Students should write or type all information in their own words. Please do not include text that has been photocopied, printed, or copied by hand. Only include your own original work in your own words.

See website for topic suggestions and Scientific Method details.

If you have any questions, please feel free to contact your child's teacher or Melinda Heimerich at Melinda.Heimerich@gwinnett.k12.ga.us

Sincerely,

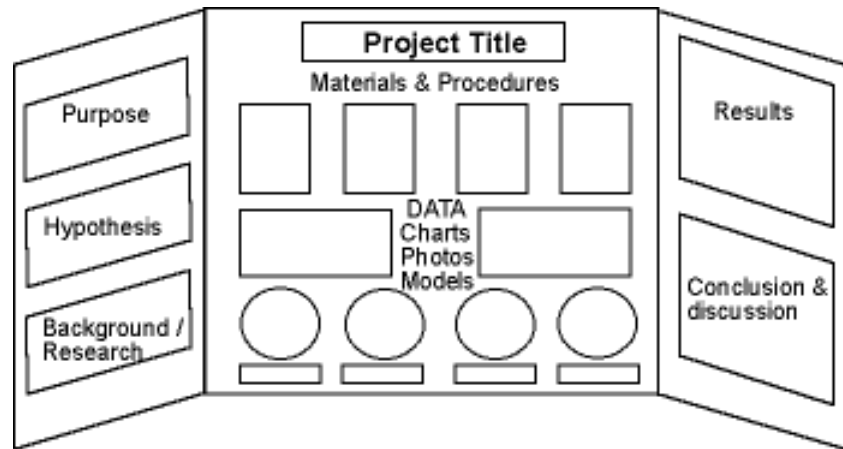
The Science Committee

Science Experiment Safety Rules

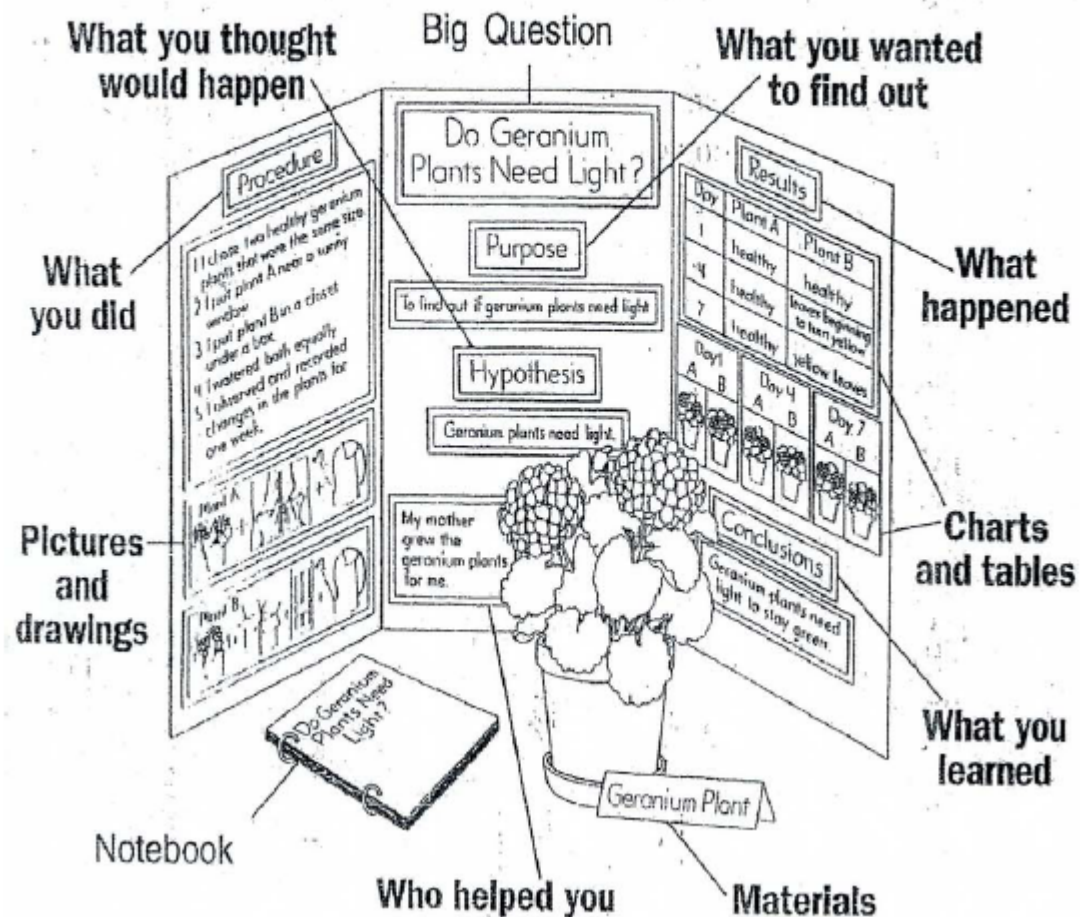
1. Be alert and work carefully. Don't fool around. It could be dangerous to yourself and others. Have an adult present.
2. Follow directions carefully. If you have questions, ask a responsible adult.
3. Report any accidents to an adult.
4. Wear protective clothing when working. Wear an old shirt or an apron to protect your clothes.
5. Wear goggles or safety glasses over your eyes when using chemicals or materials that may be harmful to your eyes.
6. Wash your hands after handling chemicals.
7. Have safety equipment available. Know the location of fire extinguishers, fire alarms, and first aid kits.
8. Keep your work area clean.
9. Never taste chemicals or solutions. DON'T EAT food while doing your experiment.
10. Keep flammable materials away from heat sources. YOU MAY NOT USE GASOLINE or other flammables!
11. Use household batteries only. Do not use electricity unless you are supervised by an adult.

Construction of Projects

All projects/displays must be free standing. The use of a tri-fold board is highly recommended and the dimensions should be no bigger than: 48"W x 36"H open, 24"W x 36"H folded. See examples below.



Displaying a Science Fair Project



Log Book Contents

1. Question- What do you want to find out?
2. Research- What did you learn about your topic? List what resources you used (books, internet sites, etc.)
3. Hypothesis- What do you think will happen in your experiment?
4. Materials - List the materials used in your experiment
5. Procedure- What steps will you follow?
6. Observations/Data- What happened during this experiment? You must have one (1) chart, graph, pictures, and/or diagram for your display. ***When using photographs be sure not to include the child***
7. Results/Conclusions- What did you learn from this experiment? Was your hypothesis correct? Why or Why Not?

Week of	Timeline of Events & Things to do	Check when Completed
January 6 - January 12	<p>Project directions sent home. Choose your topic. Begin learning about your topic. Visit the library and do some research.</p> <p>My experiment question is</p> <hr/> <hr/> <hr/>	
January 13-January 20	<p>Decide how to set up your experiment. Write your research question and hypothesis. Make a list of the materials and procedures for your experiment. Read it to your family and make sure you have listed every step.</p>	
January 23-January 31	<p>Conduct the experiment and record data. (Note: If you are doing an experiment that takes lots of observation over a period of time, you may need to begin the project earlier.)</p> <p>Analyze your data. Include charts, graphs, tables, pictures, photographs, etc. Write your conclusion. Was your hypothesis correct? Tell what factors may have influenced the outcome and what you would change next time.</p> <p>Remember to take photos or draw pictures to document your experiment if appropriate.</p>	
February 1-February 12	<p>Make the display board. It should be neat and colorful. Include color drawings or photos of your graphs, data, and project. Mount them for an attractive looking display.</p>	
February 13-February 15	<p>Bring your project to school the week of February 13th - February 15th in the morning. February 23rd is the school-wide science fair. Parents are invited to view the exhibits at the Science Fair. Projects must go home the night of the event. Any projects not picked up will be disposed of!</p>	

Science Project Grading Rubric

Log Book

	Description	Points Possible	Points Received
Question	Question being investigated is present.	2	
Research	Notes taken on the topic are present and relevant. Resources of information are listed.	4	
Hypothesis	Hypothesis is clearly stated and is based upon appropriate student reasoning.	3	
Materials	Materials are listed .	4	
Procedure	Concise, step by step directions, includes independent, dependent, controlled variables. If control is needed, it is clearly identified. All entries are dated.	4	
Observation/Data	Data is presented in an organized way (Chart, Graph, Pictures and/or Diagram is included.)	4	
Conclusion	Reasonable conclusion that compares to the hypothesis included.	4	
	Total	25	

Display Board

Question	Clearly identifies the problem statement/question/purpose of the experiment, gives background information. The project is appropriate for this grade level.	10	
Hypothesis	Hypothesis is testable and includes reasoning.	5	
Materials	Materials are listed.	5	
Procedure	Concise, step by step directions, includes independent, dependent, controlled variables. If control is needed, it is clearly identified.	10	
Results/ Data	Includes a sufficient number of trials. Data is directly related to hypothesis. Photographs of the experiment in progress are optional although enhance the project. Graphs and charts are directly related to the experiment. Graphs and charts are correctly shown, appropriate for the data and make sense.	15	
Conclusion/ Next Time	Restates purpose or hypothesis. States if Hypothesis is supported or not and uses data to explain whether or not the hypothesis is supported. Discusses other factors or errors that might have affected the results.	10	
Creativity	Research area or topic is novel to student or audience. Approach to the testing show creativity. Interpretation of data is reasonable and thorough. Display arrangement is eye catching and interesting.	10	
Neatness	Display board is neat, organized and easy to follow, few or no spelling, grammar or punctuation errors.	10	
	Total	75	

Experiment Planning Form/Log Book Total _____

Display/Presentation Total _____

Score _____