

Science Fair Projects, 2011-12
East Forsyth Middle School
Mr. Anderson's Classes

The East Forsyth Middle School Science Night will be held on the evening of **Thursday, January 26, 2012**.

OVERVIEW of the SCIENCE FAIR PROJECT

- This is a research project that involves solving a problem through experimentation. Each student chooses to investigate a problem in one of these fields: biological science, physical science, Earth science, or technology. The grade earned for the completed project will count toward the third quarter's science grade. There will be grades for intermediate steps during second quarter.
- Though I encourage parental guidance, I ask that all work be done by the individual student.
- Each project will be shown in the school-wide science fair and may be chosen to compete in the district-wide science fair, regional fair, and state fair. There are additional requirements you will need to meet if you are chosen to represent East Forsyth Middle School in the WSFCS district science fair. For this, you must read the WS/FCS DISTRICT SCIENCE FAIR Information Packet and use the website <http://wsfcs.k12.nc.us/Page/41832> for more information.
- There will be intermediate due dates, but the finished science fair display should be in Mr. Anderson's classroom on Tuesday, January 24, 2012.
- If you do not complete a science project, I do not want you to fail. Therefore you can receive a reduced science fair grade for the *Super Newton science fiction story* and *drawings* that you already should have turned in. You can receive up to 85% credit for the story and drawing(s), or up to 70% for the story alone.
- Replacement copies of handouts from class are available from Mr. Anderson's website (*It's time for Science Fair* section). Much additional information is posted there, also.
- Pay attention to the due dates and the grading rubric!

Rubric for Science Fair Project

Name _____

Category	Points possible	Considerations	Points achieved
Creativity	30	<ul style="list-style-type: none"> • The questions asked are student-initiated and original • The approach to solving the problem is creative • Equipment is creatively used or had to be made/modified • Interpretation of the data shows creative and original thinking by student • Student has understanding of project implications beyond their research 	
Scientific Thought	30	<ul style="list-style-type: none"> • Clear and unambiguous statement of problem • Clearly defined procedural plan for obtaining a solution • Variables clearly recognized and defined; proper controls used correctly • Data adequately supports student's conclusions; limitations recognized • Student understands project's ties to other research • Scientific literature cited, not just popular literature (i.e. newspapers, web) 	
Thoroughness	15	<ul style="list-style-type: none"> • Original question was completely addressed • Conclusions are based on repeated observations (not single experiments) • Project notes/lab notebook are complete • Student is aware of alternate approaches or theories • Student spent an appropriate amount of time on the project 	
Skill	15	<ul style="list-style-type: none"> • Data was obtained and analyzed appropriately by student • Student worked largely independently • Student has required skills and understanding to continue research on own 	
Clarity	10	<ul style="list-style-type: none"> • Clear discussion of project (not a memorized speech) • Written material/poster reflects understanding of research project • Data and results are presented clearly. • Presentation is forthright • Student designed and created poster largely independently 	

Total of points possible: 100

Total of points achieved: _____

RULES

- Each student will complete an experiment to be displayed at the January 26th Science Fair.
- The topic can be chosen from any area of science, even if the area is not closely related to what we are learning in class. There will be a list of several hundred possible topics posted in Mr. Anderson's room. You may investigate any scientific question (problem) that YOU can do, given your own limitations of time and resources. Do not do an experiment you have done before.
- The project must meet all of the scientific method specifications and guidelines given to the student and must have **three references** (your bibliography) that support the hypothesis.
- All notes and data should be kept in a notebook (the **Science Fair Log**). The Science Fair Log is the place where you keep your Science Project Proposal form, Lab Report form, notes, and bibliography. Eventually you will draw from the information in the SF Log to make your finished product—a display board.
- The project may be presented on a regulation display board (called a triptych) or a home-made display board. There will be a sample triptych in Mr. Anderson's room. You may make your own cardboard triptych or buy one from a store that sells office and school supplies. A regulation triptych with header board does not exceed 76 cm depth (30 inches), 122 cm width (48 inches), and 183 cm height (72 inches). You may use a header board with your triptych.
- Mr. Anderson has many used triptych display boards that are available to you for the asking. You would have to cover the used triptych before posting your work on it.
- The grade you earn for your experiment *will* depend on how well you design, carry out, and display your experiment. See the grading rubric for specifics.
- Your experiment *will not* be graded for how slick and fancy it is. Some students like to use expensive, impressive-looking materials, while other students look for simple materials they can find at home. Either style is perfectly acceptable, *as long as it is scientifically valid and clearly displayed*.
- The seven parts of your experiment that you will need to display on the triptych are: **Problem, Hypothesis, Procedure, Data, Analysis, Conclusion, and Bibliography**. These parts are described clearly in "Mrs. Whealton's Guidelines for a Better Experiment." You can download Mrs. Whealton's guidelines from Mr. Anderson's website. Printed copies are available, also.

Calendar for Science Fair Projects, 2011-2012

Mr. Anderson's Classes, East Forsyth Middle School

SCIENCE FAIR CALENDAR for (student's name) _____

Please attach this calendar into your Science Fair Log and present it to your teacher on each due date.

1. December 20 –PROPOSAL FORM

(The *Science Project Proposal* form from Science Buddies includes your problem-question, along with a checklist and places for you and a parent or guardian to sign.)

- Science Project Proposal form with signatures and all yeses is **due Tuesday, December 20, 2011.**

2. January 13 – LAB REPORT FORM

(The lab report form has places for you to record your problem (question), hypothesis, Procedure, Data, and Conclusions.)

- Lab Report form or equivalent is **due Friday, January 13, 2012.**

3. January 13 – GET YOUR TRIPTYCH DISPLAY BOARD with or without a header board

(If you have not already obtained a triptych, it is advisable to do so by this date.)

- Get your display board **by Friday, January 13, 2012.**

4. January 24 –DISPLAY

- Finished triptych display is due in Mr. Anderson's room **by Tuesday, January 24, 2012.**

Bring parents/guardians to the East Forsyth Science Night on Tuesday night, January 26th at ____ pm! (You are not required to attend, but if you can come, it will be worth your while.)

Bibliography Worksheet

SCIENCE PROJECT BIBLIOGRAPHY for (student's name) _____

Do you have at least three different **references**? (books, articles, internet sites, primary sources)

List the books, articles, internet sites, and/or primary sources.

Reference #1. _____

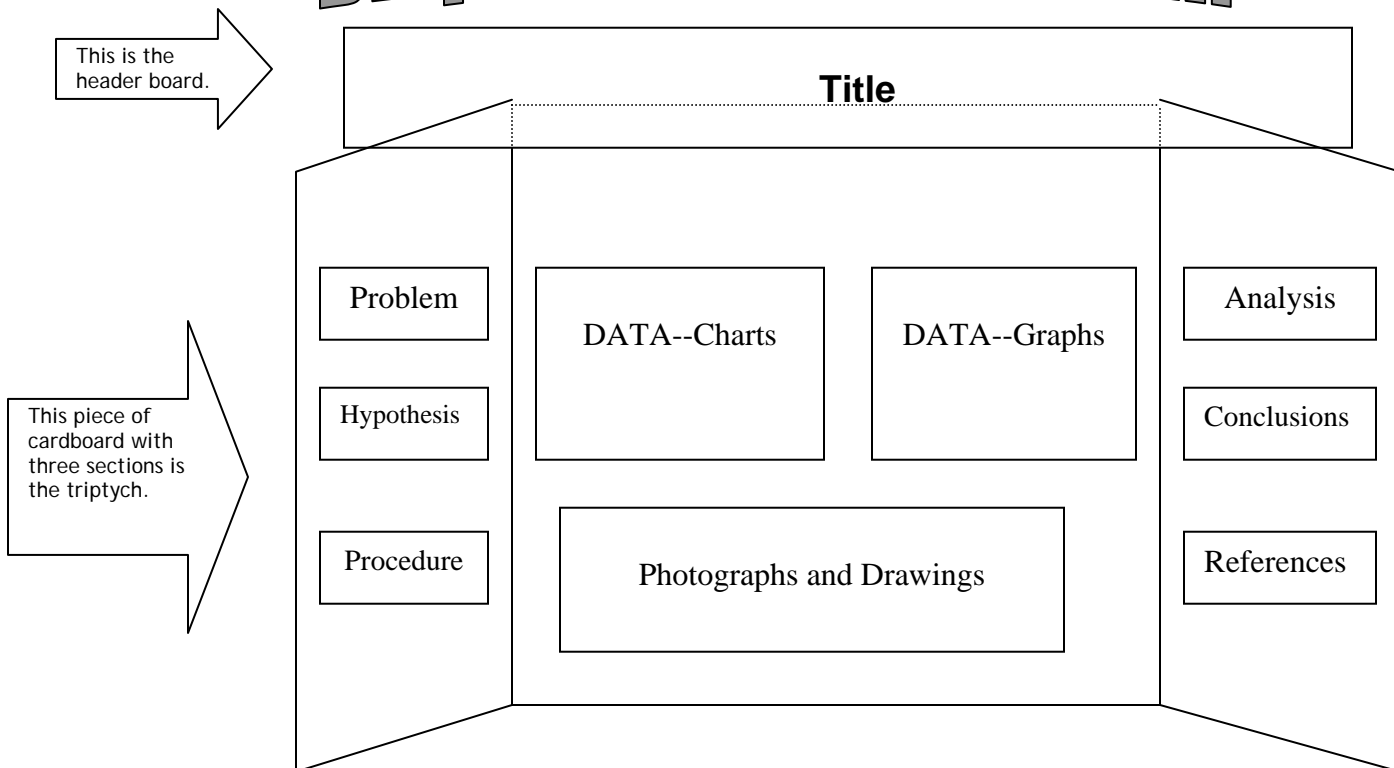
Reference #2. _____

Reference #3. _____

Extra Reference _____

Extra Reference _____

Display for Science Fair



- The diagram above is a *suggested* format for your display.
- Whatever format you follow, make sure your display is easy to read, informative, and visually appealing when looked at from about two meters away.
- Purchase or make your display board early, but do not put any information on your board until after you have recorded all experimentation, analysis, and conclusions in your Science Fair Log.
- Size restrictions: Maximum 183 cm tall, 76 cm deep, 122 cm wide.
- If possible, include photographs of you doing your experiment.
- Write your full name and your science teacher's name on the back of the triptych.

A good source for help on any aspect of the science fair project is <http://www.ipl.org/div/kidspace/projectguide/> .