

Science Fair, January 19, 2017

Third through Sixth Grade Requirements and Timeline of Due Dates

Using the **Four Question Research Strategy** papers (attached) as your guide to process the steps of your experiment, here are the due dates of the different Questions and Steps to complete your Report.

Planning and Choosing a Topic

Each student will need to choose a subject of inquiry that they will be able to research and report on. This topic can be based on classroom studies, or students may also choose other subjects of interest to them. Science Fair topics must be approved by their teacher. There are many websites and books at the library devoted to science project ideas. This website will help you get started on ideas: <http://sciencebuddies.com>

Research class topics or other topics of interest. Find a topic about which you can ask a question and make a hypothesis. (A hypothesis is a proposed explanation made on the basis of limited evidence which becomes the starting point of further investigation.) For example, this is a question (or problem): How does the voltage of an AA battery change over time when used in low, medium, and high current drain devices? This is the hypothesis: The voltage of an AA battery over time will decrease, and it will decrease faster in higher drain devices.

Due on Monday, October 24: Science Fair Topic (Area of Research Interest). Students must present to their teacher the topic they have chosen.

Due on Monday, November 14: Questions 1 through 5, from page 1 of the Four Question Research Strategy.

Steps for your Experiment

Plan how you will test your hypothesis. Plan very carefully. How will you measure? How will you eliminate errors? Try to anticipate disasters, and prevent them. Choosing a topic and planning how to test your experiment are the most important, for if your idea is poor or vague or too difficult to test, the project will not be very satisfactory. Collect the things you need to begin, and get started. Do this as soon as possible.

Due on Friday, December 2: Steps 1 through 6 from second page: fill in the Experimental Design Diagram on the 3rd page. **Please note that if your child is growing something, this date needs to be moved up to November 14.**

Results and Written Report

Write down **everything** you do, for your notes will be very helpful later. It might be best to purchase a small ringed binder that will be your project log, or you can make a notebook yourself. Do not think you will remember later...take excellent notes at each phase of your project. Observe your project very carefully. If you notice errors, fix them.

As your first results are discovered, make records. Check for errors. Collect all the necessary data. Remember that good conclusions are based on actual results. If your results are inconclusive...it will be difficult to complete the project well.

Be sure to write down everything that you do, even errors that you have to correct. It is possible that the results of your science experiment are not what you expected. That is okay! Write in the results but also write in what you think you could have, or should have, done differently.

Conclusion

Conclude the research portion of the project and draw conclusions from your research. Include 2 – 4 sentences about what you would change, or alter, if you were to do this experiment again.

List of Items for Written Report

The written report should include the following:

1. Title Page - gives the title of the project, your name and grade level
2. Table of contents - lists the sections of the paper
3. Purpose - gives the hypothesis and explains your idea, source of idea, etc.
4. Procedure - explains the procedure step-by-step; gives instructions and materials as if someone were following your directions; may include pictures
5. Results – discusses your results; gives charts, graphs, pictures, etc.; identifies any errors in the experiment
6. Conclusion - draws a conclusion from the results
7. Bibliography - lists references used (books, articles); acknowledges any help received from parents, professional individuals, etc.; acknowledges any donor of supplies.

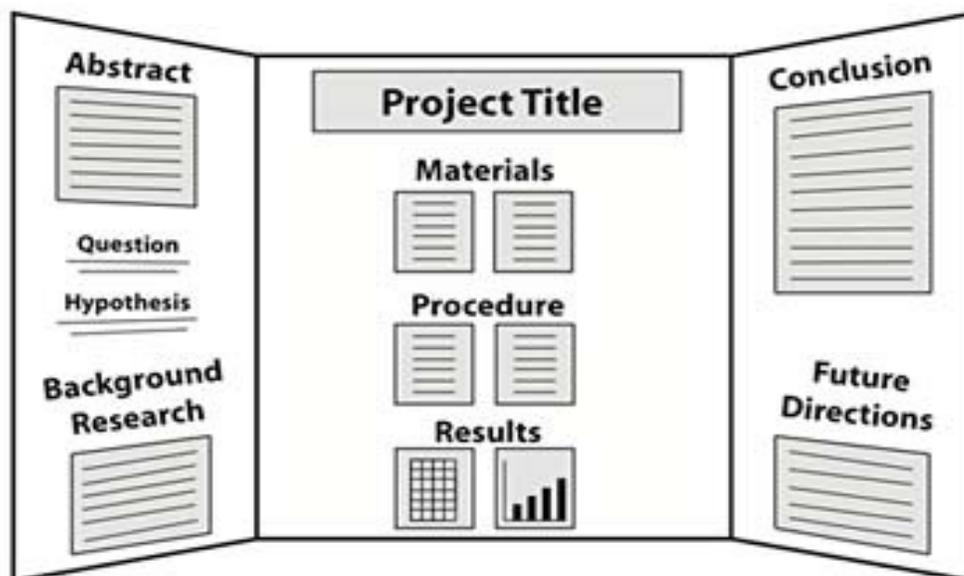
Report must be hand-written.

Requirements of the Three Panel Display

Your display should present the project, and should have the following elements:

A Title, the Problem, the Hypothesis, a list of Materials, some graphs, charts, or photos that help explain the project, a summary of the Procedure, the Results, and the Conclusion. Next to the display board should be your written report, visual aids, and your log book or notes. **See an example of a display board below. All writing on the display board must be hand-written, except for titles.**

Due on Tuesday, January 17: Display, Log Book, and Written Report, which includes all 7 items above.



Organize your information like a newspaper so that your audience can quickly follow the thread of your experiment by reading from top to bottom, then left to right.