SCHOOL/DISTRICT/ SCIENCE FAIR PROJECT ASSIGNMENT AND TIMELINE

Assignment	Due Date
Part 1. Generating Research Ideas, Topic Selection and Formulating a Research Problem/Question Review the nature of science as it pertains to safety, scientific attitudes, ethical issues and constraints. Select 3 science topics that you are interested in. The topics have to be on or above your grade level. Your teacher will review these topics with you to decide on the best and final topic for you to work on. Formulate a research problem/question based on your topic. The research problem is a statement about an area of concern, a condition to be improved, a difficulty to be eliminated that requires deliberate investigation. Do not start your project until your topic and research problem have been approved.	
Part 2. Review of Related Literature, Writing a Hypothesis, and the Research Report Read scientific articles related to your topic and generate a research report which contains background information on the topic that you have selected. Include an explanation as to why your investigatory project is important. It should be typewritten and only 2-3 pages long. If applicable, explain any societal impact of your research. Avoid plagiarism at all cost. Paraphrase if needed. Annotate materials. Use notecards or take down notes in your science notebook/journal. Cite your sources and provide a bibliography (with at least 5 works cited) using the school's format (i.e. MLA, APA). Write your hypothesis using the "If…then…" statement, properly identifying your independent and dependent variables. What do you think will be your conclusion?	
Part 3: The Research Plan: Variables, Materials and Procedures Determine the steps that you will take to complete your investigation/experiment. Include controls, constants and variables, as needed. List down all the materials that you will use. Do not forget your units of measure. Make sure the procedure is detailed (step by step, including how your data will be collected) and clearly written in your science fair notebook/journal so that it can easily be repeated by anyone who wants to do the experiment again. Describe only your project. Do not include work done by your mentor or others. Identify any potential risks and safety precautions needed. Make sure that you have filled out an experimental design diagram (EDD) and have completed and submitted the appropriate paperwork for the science fair, including approvals needed to proceed with your experiment.	
Part 4: Experimentation and Data Collection Use your EDD as a guide in setting up your experiment. Follow all safety procedures. While your experiment is in progress, observe and collect your data. Record all your observations in your science notebook/journal. Take pictures that are needed to represent your project.	

Part 5. Results: Data Tables and Graphs, Analysis of Data and Conclusion Organize your data into tables and graphs. Label them properly. Analyze and interpret your data using the tools of statistics. Describe the procedures that you will use in analyzing your data and results.	
Part 6: Final Project Report, Science Notebook/Journal, Abstract and Display Board. The final project report is the formal report used in your display board for the science fair. It includes your conclusion – which is the answer to your research problem and an explanation about whether your data supports your hypothesis or not. It summarizes what you have learned from the investigation/ experiment. In the report, indicate also if you want to learn more about your topic and what you plan to do to explore other areas of concern (if any). Make sure that the final lab report is also clearly written in your science fair notebook/journal. Your science notebook/journal should have the following sections: title page, table of contents, abstract, review of related literature (research report), hypothesis, variables, safety precautions, results (data tables and graphs), conclusion and bibliography. Include pictures. An abstract is a brief synopsis or summary of the most important points of your science fair project. Through the abstract, the reader can evaluate the significance of your project and then decide whether or not she/he wishes to read your full report. Although the abstract appears first in a research paper, it is generally the last part to be written. It is not included on the display board.	
School Science Fair	
District Science Fair	
Science and Engineering Fair (and Beyond)	