Experiment-Project Guidelines

THE AMERICAN COLLEGE OF SOFIA

Overview of Submission

To create and carry out an original experiment, you should **first formulate a clear research question** and **hypothesis.** You then should do background research on the topic before refining your hypothesis and designing an experimental procedure and apparatus. Collect raw data and observations while conducting your experiment. Make sure you leave enough time to thoroughly think and analyze your results. Why do you think you have the results you do?

In the end your experiment will be evaluated on the following criteria:

- experimental design and process
- poster display
- oral presentation

Project Display – What should it look like on the day of the fair?[1]

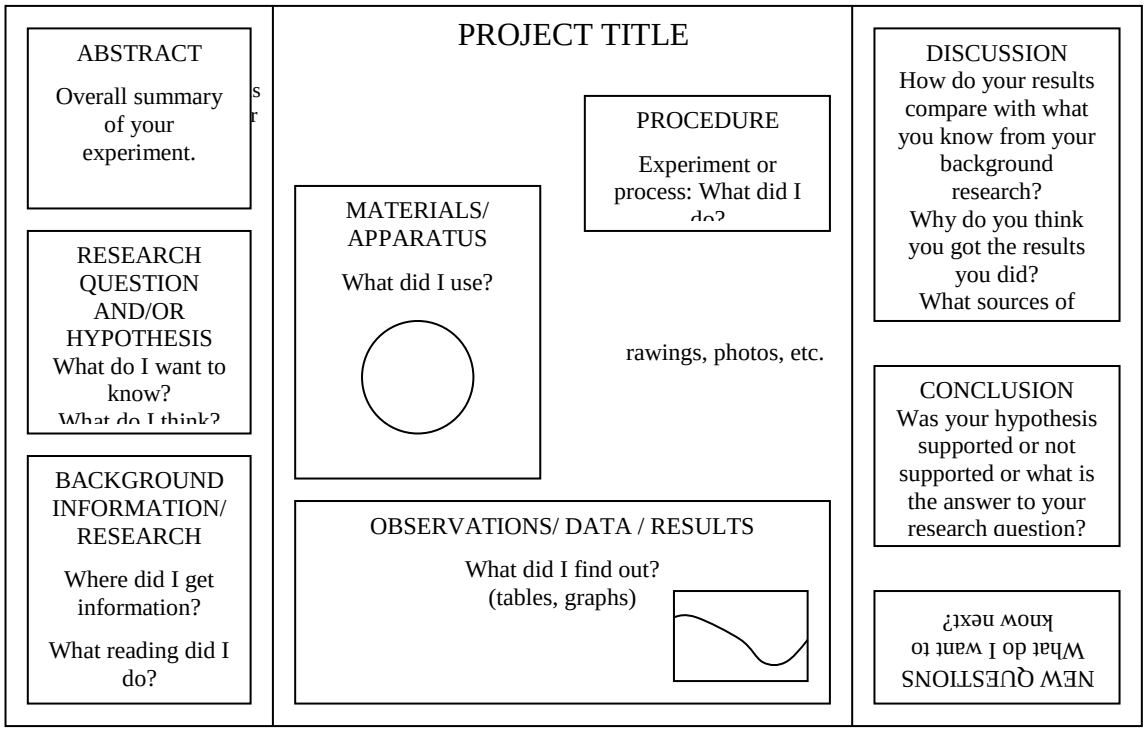
Your project should be displayed in a neat, clear, visible, well-organized format. Use your creativity to design the display, with the following important guidelines:

[1] Adaptations have been made from "science-o-rama!: Great Minds at Work, Information Guide, Grades K-5, Tuesday, February 1st, 2005, Los Alamitos Cafeteria".

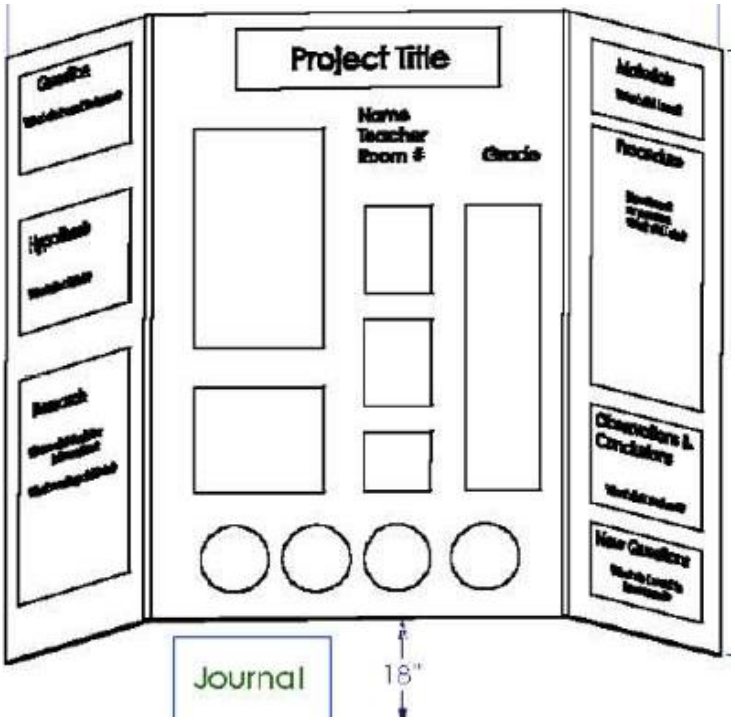
- Project displays must be **free-standing** (not attached to walls, ceilings, etc.) and fit on a double-size desk. **This means the display surface area must be no larger than 148 cm wide by 52 cm deep** (but it may be smaller).
- If you have an unusual model or display that is larger than this, or require special placement, hanging up, or electricity, please request this in writing on Form 2.
- Note: Projects requiring electricity should use batteries or other power sources, if possible. If electrical power is needed, you must have prior approval by the Science Coordinator.
- Each project must be accompanied by a poster display that explains the exhibit (see examples on the next page). This display board/backdrop should not exceed 100 cm height x 148cm wide (two ~40cm wings and a ~70 cm back).
    - The **title** of the project should be placed at the top of the center panel or on the separate title board.
    - Near the title, include an **abstract** of no more than 200 words that summarizes your experiment. (An abstract should communicate the basics of your experiment for someone who wants to quickly know about your experiment – it's what scientists read in professional journals to decide if they want to read the whole article.)
    - **Research Question** and/or **Hypothesis**, **Background Information/Research**, **Materials/Apparatus**, **Procedure**, **Observations/Data/Results**, **Discussion**, **Conclusions**, **Further Questions** and any photos/drawings/graphs should all be displayed on the Display Board. The formatting may differ between projects, but all submissions should contain all of these components.
    - **References** (bibliography or works cited) must be clearly displayed. Failure to do so will be considered plagiarism; school policies on plagiarism will apply.
- Lettering should be clear and large enough to be seen from a distance. Charts, graphs, photos and drawings should be labeled.
- The name and section of all group members and the group's number (given upon registration) must be clearly displayed.
- The area in front of your poster display should be used for any part of the project that needs to be displayed (such as plants, equipment, etc.). **Do not display anything that could be hazardous**; use photos or drawings instead. If you keep a journal during your experiment where you record raw data and draft writing, you may display that here as well.
- DO NOT DISPLAY: dangerous chemicals; combustible solids, fluids, or gases; flames; open containers of liquid; live animals; expensive or fragile items; or any hazardous substance.
- Do not consume food or drink for personal consumption while displaying your project. This can disqualify you from the competition!
- Students may use their own computer to supplement their project presentation, but at their own risk – these should be removed when participants are not actively presenting their project. ACS assumes no responsibility for personal computers used at this fair.
- Project Display Examples[2]

Be creative! The format may vary depending on your project. These are suggestions only.

[2] Adaptations have been made from "science-o-rama!: Great Minds at Work, Information Guide, Grades K-5, Tuesday, February 1st, 2005, Los Alamitos Cafeteria".



The area in front of the display board may be used to display your journal, project, research paper, demonstration, invention, apparatus or other items.



Oral presentation – What do I have to say about my project?

You will talk about your project in two ways. One will be the formal presentation for the team of judges. Expectations for your formal presentation are as follows:

- ALL members of the group should be present and take part in the presentation during judging. Missing team members will not earn the percentage bonus! (In the event of an emergency, serious illness or academic conflict, contact your Project Supervisor in advance.)

- You should prepare an oral presentation of 7 to 10 minutes in length. If your presentation falls outside of this time range you will lose points. We will cut you off if you talk for more than 10 minutes. (See Presentation rubric for details.)
- In the presentation, you need to summarize your research question or hypothesis, the procedure you used for the investigation, the data you collected, the results of your research and what you can conclude from this experiment. You may also mention noteworthy information about the references you consulted, your materials, modifications you made or challenges you experienced, if you would change something if you did this experiment again, or what studies you think should follow this experiment.
- The judges will ask you questions about your project. Practice answering questions posed by someone who is not part of the project so that you are prepared and calm.

The other presentation will be the informal presentation of your project to your peers. On the day of the science fair, many students will come to see and admire your hard work. They will have a lot of questions for you, different from those of the judges, about your project and how you carried it out.

You are required to be with your project at all times listed in the Science Fair schedule as “project poster session”.