
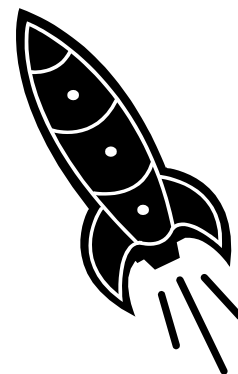


MMSTC

Presents the
"People's Choice"



Science Symposium



- See Displays of Science Research
- Hear the Researchers Discuss their Findings
- Vote for Your Favorite Exhibit!
- Join the FUN!!

Wednesday, January 22, 2020
6:00 pm until 8:00 pm
Butcher Community Center
27500 Cosgrove
between Mound and Ryan



Science Fair Three Minute Presentation

Introduction. Shake hands with the judges and introduce yourselves and what high schools you are both from. Remember to talk to the judges, not the board when presenting, maintain eye contact with judges. If you're not talking you should be paying attention and perhaps pointing to the board to emphasize what your partner is talking about.

Problem Statement. Describe your science fair project or invention and the purpose for doing it. Why should anyone care about the work you did? You have to tell them why it was important. Did you explain something that should cause people to change the way they go about their daily business? If you made an invention or developed a new procedure, how is it better, faster, or cheaper than what is already out there. Even if what you did was test existing scientific laws tell why it was important to do so.

Procedures. Briefly describe your approach for investigating the problem? Do not go into detail about materials unless they were critical to your success. Do describe the most important variables that were involved.

Results. What answer did you obtain? Be specific and use graphs and numbers to describe/support your results. Do not use vague terms like "most" or "some."

Conclusions. Be sure to directly answer the problem you posed in the Problem Statement. Back your conclusions with experimental and statistical evidence. Explain your results (good or bad) with scientific laws or theories. Are results supported by generally accepted scientific laws/theories, if not, use these scientific laws and theories and what happened in your experiment to explain why you received the results you did. State what your science fair project or invention contributes to the area you worked in.

Invite the judges to ask you questions.

Things to Avoid

Avoid jargon or any technical terms that most readers will not understand.

Avoid acronyms (or abbreviations on your board) that are not commonly understood unless you describe what they mean.

Avoid talking the whole time – be sure the judges have time for questions.

Remember to

Make sure that all partners participate equally in the presentation to the judges.

Point to the graphs or diagrams on the board to emphasize your points

THANK the judges for their time and interest!

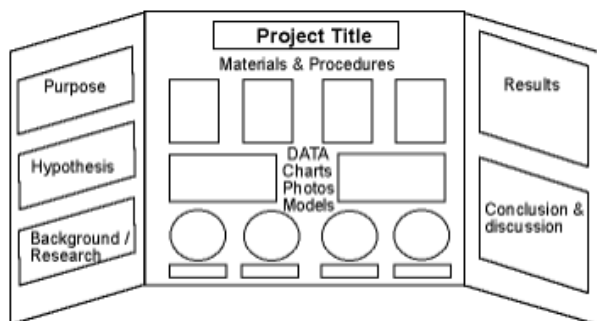
Science Fair Board Example

Each group will be responsible to create a tri-fold science fair board. It should include all topics as shown on the example below and follow a logical order. Pictures cannot include any identifying shots. Showcase any physical part of your experiment that is practical and will enhance the display of your project. Display a copy of your paper in front of the board. You will be given time to work on these boards during IDS class January 9, 10, 13, 14, 21 & 22. The science fair is January 23, 2020. The People's Choice Science Fair will be held Wednesday, Jan. 22 at Butcher in the Commons from 6 pm until 8 pm.

Include: Citations for images, a tag that notes that all images, figures and tables were created by the researchers unless otherwise noted, NO photos of researchers' faces.



<p>Profound Statement Why is your research important</p> <p>How does it impact science or society</p> <p>Hypothesis</p> <p>Background</p>	<p>Photos/Diagram of Experimental Setup or Diagrams of Science Explanation and Equations Pictures Pictures Pictures</p> <p>Graphs with captions</p> <p>Data Tables (only if vital)</p>	<p>Statistical Test</p> <p>Null & Alternative Hyp</p> <p>Interpretation</p> <p>Conclusion</p> <p>Practical Application</p>
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Good, but put pics of science concepts or procedures and graphs in center, not data tables and materials. Most important stuff front and center. Props are good.

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. Include each step of your science fair project: Abstract, question, hypothesis, variables, background research, and so on.

Use a font size of at least 16 points for the text on your display board, so that it is easy to read from a few feet away. It is OK to use slightly smaller fonts for captions on picture and tables.

The title should be big and easily read from across the room. Choose one that accurately describes your work, but also grabs peoples' attention.

A picture speaks a thousand words! Use photos or draw diagrams to present non-numerical data, to propose models that explain your results, or just to show your experimental setup. But, do not put text on top of photographs or images. It can be very difficult to read.

Graphs & figures should each have a caption. Make sure you properly cite all of your sources.

Put your most important stuff on your board.

Use the largest font size that is possible for you board (judges will not even try to read size 12 font—you have wasted space).

Make the board as “visual” as possible.

Use as many props or actual samples as possible.

Item	Font Size (points)	Comments
Title	150+	You want your title to be visible from across a room!
Headings	32+	Should be easily readable from five feet away by someone just walking by.
Subheadings	20+	This text is smaller than headings, but more noticeable than main text size.
Main Body Text	16 – 18	This is a comfortable text size for someone who comes closer to read more.
Captions	14 – 16	It's OK to make these a bit smaller than the body text if necessary.

Super important things to remember:

1. No acknowledgements are allowed on the board (companies, organization, people, etc.)
2. No photos of student faces
3. There must be a visible note that states “all Images, diagrams, tables and figures are products of the researcher unless otherwise noted.” (affixed to the lower right hand corner of board) All images, tables, figures that were not student created must have the source on the image or in the anchor visible to the judges.
4. Student names and schools may not appear on the front of the board.
5. Students may not affix samples to the board (swatches of fabric, bags of chemical samples, 3D products) these items may be brought with them to the Detroit Science Fair and will be evaluated at their safety review interview by a judge who will determine if it may be displayed or not. (Most tend to be rejected at DSF). Displays and samples are great for our science fairs.

Science Board Grading Rubric

- _____ (5) **Title** is outstanding and clear. Overall board **aesthetics**: board is organized and flows, it is neat and easy to read. Error-free.
- _____ (5) **Props/sample/diagram** displayed, it is relevant and helps convey concepts.
- _____ (5) **Problem Statement and Hypothesis** are clear and easy to understand.
- _____ (5) **Purpose** – Why the experiment was important to conduct. How does the scientific community benefit from the knowledge gained in your experiment.
- _____ (5) **Scientific Concepts** are **visually** displayed and explained as they pertain to your project.
- _____ (5) **Procedures** are visually outstanding and easy to follow/understand (only most important steps included). **Captions** clearly identify photographs and/or drawings.
- _____ (5) **Graphs** are visually outstanding, **trends and patterns are denoted in captions, results can be clearly identified by the graphs** (graphs are appropriate, units and labels are correct).
- _____ (5) Statistical Analysis: is appropriate, clear and relates to original problem: Students can **relate P-value to what the graphs show visually**.
- If doing a DOE, state which **factors and interactions are significant** as determined by the test of significance $|\text{effect}| \geq 2(\text{range of standards})$.
- _____ (5) **Conclusion** is clear and discusses the scientific reasons for your results and how they compare to accepted scientific beliefs.
- _____ (5) **There must be a visible note that states "all Images, diagrams, tables and figures are products of the researcher unless otherwise noted." (affixed to the lower right hand corner of board) All images, tables, figures that were not student created must have the source on the image or in the anchor visible to the judges.**
- _____ (50) Three-minute presentation:
- Students **shake hands** with teacher and introduce themselves and what school they come from.
- Profound** opening statement (Why is your project important?)
- Maintain **eye contact** while speaking.
- Students point to relevant pictures and graphs while explaining their research (teamwork). Pointing out to judges what is important to notice.
- Practice** is evident (partners know who is talking about what and when to switch)
- All topics on board are covered.
- _____ (100) Total Possible

Comments: