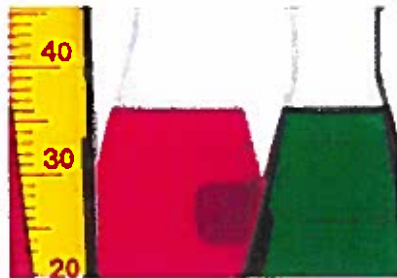


BMI SCIENCE FAIR 2016-2017

Science Fair Handbook



Name: _____

This handbook should be used as a guide to assist you in correctly completing your science fair log book and following the guidelines for a successful science fair project.

HAVE FUN LEARNING!

Ms. Mosley

BMI

6th-8th Grade Science Teacher

Every great advance in science has issued from a new audacity of imagination.

~John Dewey, *The Quest for Certainty*, 1929

Dear Parents:

Our annual Science Fair is swiftly approaching. This year our school wide goal is to ensure that each student at every level has a clear understanding of the scientific process while expanding their understanding and application to new horizons. Therefore, we have initiated some enhancements in order to ensure all students have the necessary information and resources to be successful as a participant in the 2016-2017 Science Fair. You have probably also noticed from our school calendar that our Science Fair is broken into multiple parts. Our middle school fair is first on the calendar, so let's get started NOW!

Listed below are important details to ensure your child's success:

1. **Presentations:** All students 6th -8th grade students are required to present their projects on a **standard size tri-fold board in any color**. Please do not use foam boards.
2. Each student will need a **Scientific Log Book** as part of his/her science grade. These notebooks have weekly due dates that will be posted on each section. The log book ensures that your child is on the right track in formulating his/her experiment. Parents you will need to purchase a spiral notebook for your child as a part of his/her science project grade. They will be given a *Science Fair Handbook* to assist them in completing this portion of the project. Students may begin bringing in spirals now.
3. **Demonstrations:** Demonstrations are allowed. Please be mindful that students may have to present their projects at least two times. Therefore, make sure when gathering materials that enough materials are available for each presentation date.
4. **Judging:** Judging of each section of the Science Fair will be done in two levels. Level one judging will be conducted by your child's Science teacher and other members of the BMI Science Department. Students that meet the score requirements will pass on to the Final round. Round 1 is Tuesday, November 8th and Round 2 will take place on Friday, November 11th. No extensions will be given so please pay close attention to **deadlines**.
5. **Finals:** Students advancing to the finals will receive a second notice detailing the finals procedures and guidelines. The finals are judged by outside sources.

As we embark on this adventure in science, we are seeking your support. Therefore, we encourage you to check in with your child daily about new information being delivered by his/her science teacher, and keep a watch out for any communications in regards to this event. We thank you in advance for all you do to help us see your child successful.

Diligently seeking knowledge,

The 2016-17 Science Fair Committee

Science Fair 2016 Timeline

Teacher Assigned Due Date.
Written by Student here.

October 14th

1. Project Topic, be clear and concise. Grade: _____/5 points

Project Topic

Parent/Guardian Signature

October 14th

2. Acknowledgements, a place for you to give credit to those who helped you with advice and/or supplies.

October 14th

3. Introduction, a brief look at the background and goals of your research. (2 to 3 paragraphs). Place in class folder.

Grade: _____/5 points

Parent/Guardian Signature

October 21st

4. Review of Literature (background research) this is your written/typed report about the information you discovered when you researched your topic. 2-3 pages. Place in class folder

Grade: _____/10 points

Parent/Guardian Signature

October 27th

5. Statement of the Problem or Purpose, the question you will answer about your project. Grade: _____/15 points

Statement of the Problem

Parent/Guardian Signature

Project Topic

A Word About Choosing a Science Fair Project Topic

Questions to ask yourself:

1. What thing(s) am I interested in? Food? Baseball? Basketball? Gardening? Life Cycle? Pets? Electronics? Ecosystem? Solar System? Chemistry? Computers? How things work (Physics)? Skateboarding? Etc. What am I "passionate" about?
2. For Ideas:

Browse through your local public library

<http://www.houstontx.gov/events/library.html>

- Look in your local newspapers (especially Houston Chronicle and Defender)
- Look in magazines such as Science News, Popular Science, Scientific America, 21st Century Science & Technology, American Scientist, Discovery Magazine, Science Daily, etc.
- Talk to people --- your parents, teachers, friends, neighbors, grandparents ... for ideas and be sure to visit the Houston Science & Engineering Fair website at:
<http://hunstem.uhd.edu/SEFH/sefh.html>
- And Science Buddies - A Free Science Fair Project Ideas, Answers & Tools for Serious Students at:
<http://hunstem.uhd.edu/SEFH/sefh.html>

Experimental Work (the last section of your Log Book) will include:

- a. **PROBLEM** or **QUESTION** - should be stated in a question form.
- b. **HYPOTHESIS** - Your educated guess as to what you "predict" your results will be. I predict ...
- c. **LIST of MATERIALS and EQUIPMENT USED** (everything used).
- d. **DESIGN AN EXPERIMENT** - plan of step by step how you will test your hypothesis.
- e. **TEST YOUR HYPOTHESIS** - conduct the experiment and record the data.
- f. **ORGANIZE YOUR DATA** - create a chart or graph of your data including photos. **PHOTOS WILL NOT BE RETURNED!**
- g. **CONCLUSION** - analyze your data and summarize your findings.
- h. **ASK** - is hypothesis supported or not. Modify or repeat several times.
- i. **RECOMMENDATIONS** - your ideas on how to make project better or possible uses for your findings and any additional tests which should be made. Would you do this project again or could you continue this project another year?
- j. **BIBLIOGRAPHY** - an alphabetical list of at least 6 different references used as you researched this project. (See Sample Section).
- k. **APPENDICES** - selected photos, graphs and charts in your Log Book.
- l. **COMPLETED Handbook page** including all appropriate signatures and content and inserted in Log Book.
- m. **COMPLETED LOG BOOK AND DISPLAY**, ready for **2016 Science Fair**

Sample Section

Appendices

This is where you put all of your graphs, pictures, charts, etc. Place things in an organized manner and use as many pages as you need.

Be SURE to KEEP your ORIGINAL RAW DATA SHEETS (do not re-copy them!) and include them as part of your Log Book with your display. Remember, no facial or personal photos accepted. This data is VERY IMPORTANT because it shows your original findings.

BIBLIOGRAPHY cont'd

Your finished bibliography should be alphabetized by the first word of each entry and will look something like this:

"Baldwin's Music." Videotape. New York: Sony Wonder, 1999.

Clark, William W. "Gothic Art." World Book Encyclopedia. 2001. Volume 8, pp.277-278.

Fader, Mark. Amazing Skateboards. New York: DK Publishing, 2002. 40-55.

"Golden Retriever." World Book Encyclopedia. 2003. Volume 8, p. 225.

Moore, John. "Skateboard Wheels." Popular Mechanics. April 1, 2003, pp. 27-30.

Poland, Dave. "The Hot Button." Roughcut. October 26, 1998. Turner Network Television. October 30, 1998 <<http://www.roughcut.com>>.

"World War II." Encarta, CD-ROM. Seattle: Microsoft, 1999.

Yancey, Cindy. Personal interview. June 19, 2003.

More bibliography help:

- Are you looking for an automotive bibliography maker, try: www.easybib.com
- For more information on writing bibliography see, <http://www.bialik.netaxis.qc.ca/homework/stylesheet2.htm>
- For more than you ever thought you would need to know about writing a bibliography and a research paper see: <http://owl.english.purdue/handouts/research/rmla.html>