

A K R O N
FOSSILS & SCIENCE CENTER

2nd Annual Creation Fair week

Science Fair Proceedings Booklet

Saturday, April 17th, 2010

This document was last
updated on January 29, 2010

Akron Fossils & Science Center
2080 S. Cleveland-Massillon Rd.
Copley, Ohio 44321

Science Fair Schedule Overview

- Early entry registration: received by Friday, April 2nd
- Last day for registrations: Friday, April 9th
- Entry set up: Saturday, April 17th from 10 am to 11:30 am at the Science Center
- Presentation of projects to museum guests from 1 to 2 pm.
- Judging (includes presenting project to judges) at 2 pm. All projects will be assessed by our panel of judges.
- Recognition and awards 7 pm: preceding the evening presentation featuring Dr. Whitmore. (7-8 pm).
- Projects must remain until judging is completed. Prizes will be mailed to participants who are unable to stay for Dr. Whitmore's talk.

Objective

The objective of this science fair is to honor the Creator by acknowledging and giving witness to the presence of design in the created world, by seeking to continually discover and appreciate the fundamental laws of the universe which He set in place, and by bringing to light the data consistent with a history of both man and the earth that is revealed in the Scriptures. Secondly, this science fair is for the purpose of encouraging and showcasing clearly presented and accurately explored scientific inquiry that have met this objective.

Project Categories - Overview

Each project must fall into one of the categories below and exemplify one of the science fair's **Objectives**. Each project will be judged on its ability to excel in criteria applicable to its category. A first, second and third place prize will be presented as well as certificates of participation. Depending upon the number of registrants, categorical prizes will also be awarded.

Experiments - Operational Science

Projects in this category must address a unique hypothesis through the use of multiple experiments performed by the participant or participants. Experiments must have been performed within the last year (2009/2010). Simple demonstrations of an idea or scientific principle do not belong in this category.

Data Assessment – Historical Research

Projects in the data assessment category involve making use of information that has been gleaned from other researchers to address a unique hypothesis belonging to the participant. All data used must be well referenced and must include information gathered during 2009/2010 if available.

Data Collections

In the world of science, collection of data is often a precursor to experimentation and developing a hypothesis. Careful observation and proper documentation is a vital component of this process. Data collections may be measurements of transient events or examples of objects that have been collected by the participant. Collections must include, but are not limited to, measurements (if transient data) or items (if physical objects) collected within the past year 2009/2010 by the presenter. Purchased items are not to be the sole source of specimens in a collection for presentation at this fair. Proper documentation includes names of collector, dates of collecting and location collected. Collections must be legally obtained and exemplify good stewardship of the earth's resources. The project must include questions that the participant would like to explore utilizing the collected data.

Data Representation – Communicating Science

Projects in this category may include illustrations, models, and short films. Entries must present factual information in a unique manner (models made from kits or directions from the internet are not acceptable). Fanciful conjectures are not appropriate for this science fair though creativity may be used in presentation. Models and illustrations must give an indication of scale. The illustration, model or film will be judged on its accuracy and clear illustration of the item. Participants must be able to answer questions that illustrate their knowledge about the item.

Age considerations Participation in this science fair is not limited by age, but age of the entrants will be taken into consideration during judging. Depending upon the number of registrants, age categories may be applied.

Project Categories - Details

Read the information below for the category you have chosen. Be sure your project meets all the criteria listed in the proceedings booklet for your category and the OBJECTIVE of this science fair.

Experiments - Operational Science

Size: Entry projects must not be any larger than 2 ½ feet (deep) by 3 feet wide.

Should include:

- A trifold presentation board with title, pictures, tables, or other summary information
- The notebook in which raw data was kept
- A typed copy of the presentation
- Samples of data

Raw Data Notebook:

While considering the ages of the participants, judges will be examining the raw data notebook for good laboratory practices such as recording of units with proper representation of instrument precision, no erasures or obliterations of mistakes (except single line strikeouts), and recording of dates that experiments were performed.

Typed Copy of Presentation:

Unlike the raw data notebook, the typed copy of the presentation should be without errors. It should have:

Title
Abstract
Names of presenters
Purpose
Hypothesis
Materials and Methods used
Summary of Data
Discussion of Data
Conclusion
Bibliography

Judging

Experiments will be judged on good record keeping, clear presentation of data, clarity of the hypothesis, appropriateness of the experiment for exploring the hypothesis, sufficient quantity of repetitive trials, and honest assessment of the experiment in the conclusion statement.

Assessments will also include the participant's ability to demonstrate his or her knowledge of the subject matter to the judges as he or she is questioned. Uniqueness of the hypothesis and creativity in experimental design will help judges decide between entries which are similar in nature.

Data Assessment – Historical Research

Size: Entry projects must not be any larger than 2 ½ feet (deep) by 3 feet wide.

Should include:

- A trifold presentation board with title, pictures, tables, or other summary information
- Sample journals or computer printouts in which raw data was collected indicating all citations
- A typed copy of the presentation

Typed Copy of Presentation:

It should have:

Title
Abstract
Names of presenters
Purpose
Hypothesis
Data sources used acknowledging all collectors of original information.
Summary of Data
Discussion of Data
Conclusion
Bibliography of source materials

Judging

Data Assessment – Historical Research entries will be judged by the completeness of their paper trail of acknowledgments, the logic of their argument in supporting their hypothesis, the variety and dependability of the sources utilized, and the honesty by which they assess their ability to draw a conclusion at this time. Uniqueness of the hypothesis and thoroughness in finding sources will help judges decide between technically competitive entries.

Data Collections

Size: Entry projects must not be any larger than 2 ½ feet (deep) by 3 feet wide.

Please Note: Only lawfully obtained items may be presented in collections. Please be aware that there are many items that are unlawful to collect or restricted as to where you can collect. Many times letters of permission from landowners are a necessary part of record keeping. Please check with the Ohio Department of Natural Resources (ODNR) for details.

Should include:

- A trifold presentation board with title, pictures, tables, or other summary information
- Original record keeping book or book.
- Representative collection samples – well marked
- A typed copy of record summary for presentation

Raw Data Notebook:

While considering the ages of the participants, judges will examine the original record keeping notebooks for good laboratory practices such as recording of units with proper representation of instrument precision, no erasures or obliterations of mistakes (except single line strikeouts), and recording of dates that items are collected or data is taken.

Typed copy – Summary:

A typed summary would include a list of objects collected with any identifications that were able to be made, and dates, locations and collectors names. A list of observations about the collection and or questions that were precipitated during the collecting process should be listed. Possible future assessments of the data should be listed.

Judging:

Collections will be judged based on the size of their collections, the completeness and accuracy of their records, ability to compare and contrast given samples, and reasonableness and creativity of their precipitated questions and possible hypothesis to explore. Transient data collections such as weather observations or traffic counts, etc., will be additionally assessed on how much and how often such data was taken

Data Representation – Communicating Science

Size: Entry projects must not be any larger than 3 feet wide without special arrangements made with the museum. Films must be less than 15 minutes in length.

Should include:

- A title placard with name of the creator
- The model, illustration or film for viewing
 - For models – a typed presentation of how the model was made, what it is exemplifying, and how it supports the **Objectives** of this fair. A bibliography of sources and source photographs.
 - For illustrations – any supportive information of where the item illustrated was from and how it exemplifies the **Objectives** of this fair. **NO ILLUSTRATION MAY BE DRAWN FROM PHOTOGRAPHS NOT TAKEN BY THE PRESENTER.**
 - For films – detailed information on the item being filmed and the date filmed and how it exemplifies the **Objectives** of this fair.
- A list of observations made by the presenter about their subject as they worked on their project

Judging:

Models, illustrations and films will be judged according to their ability to communicate the **Objectives** of the fair clearly and accurately. Participants will also be judged on their knowledge of their subject. Errors and lack of detail will subtract from the assessment. Using kits is prohibited. Models must be obviously made with raw materials by the presenter. Illustrations must be obviously done by hand by the presenter. Films must be original film footage by the presenter.

Project Limitations

Electrical outlets are *not* guaranteed, but please tell us if you would like one so that we can do our best to accommodate your project.

Presentation displays and demonstrations may not include any harmful chemicals, electrical hazards or explosives. All animals are to be humanely treated. Only lawfully obtained items may be presented in collections. Please note that there are many items that are unlawful to collect or restricted as to where you can collect from. Please check with the Ohio Department of Natural Resources (ODNR) for details.

Registration: Entry forms can be found on the Science Center's website, www.akronfossils.com. When you register your project(s) you must indicate the category you are entering. You must also include your age. All participants over 20 years of age may simply indicate age range.

Entry Fees*

Group project (1 entry): \$15 (\$20 after April 2nd)
Individual participant entry: \$5 (\$8 after April 2nd)

*Entry fees can be paid securely online or over the phone with a credit card. Please make checks payable to: Akron Fossils & Science Center.

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