

Clarksville-Montgomery County

Science Fair – Grades K-5

Guidelines

**Austin Peay State University
Memorial Health (Red Barn) & Dunn Center
Clarksville, Tennessee**

April 15 & 16, 2010

Sponsors:

**Clarksville Department of Electricity
Austin Peay State University**

Note from the Director:

It has been my privilege to be the Director of the Clarksville – Montgomery County Science Fair (K-5) for the last three years, and I look forward to another very successful year. The science fair is a culminating activity for students studying the scientific method in grades K – 5. Last year I visited several elementary schools with a group of my APSU students to judge the individual schools' fairs. This is an extremely valuable learning experience for all students involved, elementary and college. This science fair would not be possible without the financial support of the Clarksville Department of Electricity and the hard work of many individuals. I would first like to personally thank the Steering Committee for their dedication and diligence in preparation for the county science fair. They are vital for the success of the fair. Every teacher and parent that help students with their science fair projects do an outstanding job and are also worthy of many praises. Last but not least, the K-5 students who spend countless hours experimenting and assembling their projects deserve attention for contributing to the over 350 projects submitted to the science fair last year. I hope the county-wide science fair does an adequate job at showcasing the younger talent of this community. If you have questions concerning the science fair, please feel free to contact me at any time.

Best of luck with your projects!

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What is a Science Fair, and how can students benefit?

A science fair encourages a student to use the scientific method to answer a curious question they may have about the world around them. It allows students to express their individuality in the development of their topic and experimentation of their project. The preparation of the project allows each student an outlet for creative expression, and it encourages enthusiasm and excitement for science. The process of developing a topic for a science fair project, collecting data, and presenting the data on a project board stimulates a student's imagination and also encourages independent thinking.

Fair Facts:

- (1) Each school may select **3 projects per grade level** (K-5) to participate in the Clarksville-Montgomery County Science Fair. The decision of which projects to send will be a decision of each individual school. Each school's fair should be planned to take place on or prior to **Friday, March 12, 2010**.
- (2) For each project selected to participate in the county-wide science fair, an application and other required forms (explained in more detail below) must be filled out for each project. The parent or sponsoring adult must sign **all** application forms. The application forms will be collected at school and each school's teacher representative must then send all applications to the Director, Dr. Sullivan, by **Friday, March 19, 2010**.

NO faxed applications will be accepted this year, and a project can not be displayed without the proper paperwork being submitted by the deadline of **Friday, March 19, 2010**.

- (3) On **Thursday, April 15, 2010** from **3:00 pm to 6:00 pm** the Memorial Health (Red Barn) Gymnasium at APSU will be set up to receive projects. All projects must be set up by **6:00 pm** on **Thursday, April 15, 2010**. Judging will begin on **Friday, April 16, 2010** at **8:00 am**. (Judging is closed to the public.)
- (4) The projects will be on display on **Friday, April 16, 2010** from **3:00 pm - 6:00 pm** in the Memorial Health Gymnasium for the general public. Any project removed before 6:00 p.m. will forfeit all rights for an award.
- (5) An awards ceremony will be held for all participants on **Friday, April 16, 2010** at **6:30 pm** in the Dunn Center Gymnasium at APSU.

- (6) Projects can be removed at 6:00 pm and must be picked up no later than 8:00 pm on **Friday, April 16, 2010**. It will be the responsibility of each school's teacher representative to be present at that time to take any project from their school that is not claimed.
- (7) The grade-levels for entries are kindergarten, 1st grade, 2nd grade, 3rd grade, 4th grade, and 5th grade.
- (8) Every student that participates in the county-wide science fair will receive a participation medal/ribbon and t-shirt, courtesy of the Clarksville Department of Electricity.
- (9) The awards per grade-level, sponsored by the Clarksville Department of Electricity, will be as follows:
- 1st place = \$100.00 savings bond
 - 2nd place = \$75.00 savings bond
 - 3rd place = \$50.00 savings bond
- (10) In addition to medals/ribbons, t-shirts, and monetary awards, a trophy will be awarded to the elementary school with the most winners. The trophy is courtesy of Mrs. Rosalind Kurita. The winner of this trophy will be determined by a point system. For each winner in each grade-level, points will be given as follows:
- 1st place = 3 points
 - 2nd place = 2 points
 - 3rd place = 1 point
- The school with the most points overall will be the school winner!
(Burt Elementary and St. Bethlehem will be paired for this competition.)
- (11) **Home-schooled students policy:** Since each elementary school can submit up to 3 projects per grade level (K-5), if more than 3 home-schooled projects are submitted for any particular grade level the home-schooled projects will be pre-judged by the Director and members of the Science Fair Steering Committee prior to final judging. All home-schooled students will receive all other privileges and prizes.
- (12) See the Montgomery County Science Fair web site for more details, links, and information.
<http://www.apsu.edu/robertsonr/sciencefair/mcsciencefair.htm>

Project Guidelines:

The following **6 components are required** for all projects participating in the county-wide science fair:

- **TITLE** - This should be an attention getter! It should also describe the project.
- **PURPOSE** – The reason for doing the project must be stated in measurable terms.
- **MATERIALS** - Include a list of all resources used.
- **PROCEDURE** - Include a step-by-step report on what was done to complete the project.
- **RESULTS/DATA** - What did you observe? Experiments should be repeated multiple times to collect adequate data. (Pictures, graphs, tables, and log books are nice additions but are not required. See note below concerning pictures.)
- **CONCLUSION** - This is the answer to the purpose based on the results of the project.

If these 6 criteria are not clearly met the project will be eliminated from the competition and will not be judged.

Project Judging:

The projects competing in the county-wide science fair will be judged by APSU faculty. Although each judge is at liberty to use his/her own criteria for judging the science fair projects, the basic components being judged are explained below.

- **Scientific Thought:** The scientific method should be followed in the investigation of the project. The purpose of the project should be stated in measurable terms. All steps of the experiment should be clearly stated; bulleted lists are helpful. All data collected should be clearly displayed. Lab notebooks, graphs, tables, charts, and pictures are useful, but not required. (See note below concerning the use of pictures.) Experiments should be repeated multiple times to collect adequate data. Conclusions to the purpose of the project should be clear and concise.

- **Communication:** Everything written on the project board should be neat and large enough to easily be read from a distance of 2-3 feet away. All statements on the project board should be in complete sentences with proper punctuation and correct spelling. The project board should be visually pleasing. The use of color is helpful.
- **Originality:** How unique is the project topic, experimental procedure, or data collection? How unique is the project display?

Basic Rules for the Fair:

- (1) The Science Fair Steering Committee will provide and assign a number for identification of the project at registration.
 - NO** names or pictures of exhibitor should be displayed on the project or lab books *under any circumstances*.
- (2) Exhibits will be limited to one entry per person. No team or class entries will be accepted.
- (3) Photographs taken while working on the project or running experiments can be very important and vital in showing the development of the project to the judges and community. Pictures may be included with the project board if **all faces of individuals are covered**.
- (4) Written reports, research logs, and diagrams help to show research and knowledge gained through completion of the project, and all are found to be very useful and beneficial to the judges. These items may be submitted with the project and will be displayed in front of the project. There is a 12 inch by 22 inch space available in front of each project that may be used to display such items. **NO human food, animal food, soil specimens, waste materials, animal specimens, plant specimens, laboratory chemicals, and/or household chemicals including water, etc. can be displayed with the project, even if sealed tightly.** If projects submitted contain these items, the unacceptable items will be removed by the Director prior to judging. While these items may add to the appearance of the project, for safety reasons they are not acceptable.
- (5) The exhibit should be a free-standing, **3-sided display**. The recommended project board is 36 inches high and 48 inches wide. **Posters or poster boards will NOT be accepted.**
- (6) Large letters should be used to label each of the headings.
- (7) Exhibits should be constructed by the student with minimal help from any adult, guardian, or parent. All tools/equipment must be supplied by the student.
- (8) The Science Fair Steering Committee reserves the right to refuse any exhibit, if it considers the exhibit unsafe.
- (9) The Science Fair Steering Committee assumes NO responsibility for any project; every effort will be made to protect it.

Projects of Special Concern:

- (1) If a project uses **human subjects**, the following forms are required to be submitted to the Director **prior to experimentation**. The Institutional Review Board will review the form and make necessary recommendations. Notification of approval (or disapproval) of the project will be sent to parents and/or teachers from the Director. **Experimentation may NOT begin for these projects until approval has been granted.**
 - Projects Using Human Subjects Approval Form
 - Informed Consent Form (required for every minor participating in the experiment/survey)
- (2) If a project uses **pathogens (disease- causing agents)**, the following forms are required to be submitted to the Director **prior to experimentation**. The Scientific Review Committee will review the form and make necessary recommendations. Notification of approval (or disapproval) of the project will be sent to parents and/or teachers from the Director. **Experimentation may NOT begin for these projects until approval has been granted.**
 - Projects Using Pathogens (Disease-causing Agents) Approval Form

- (3) If a project uses non-human vertebrate animals, the following forms are required to be submitted to the Director **prior to experimentation**. The Scientific Review Committee will review the form and make necessary recommendations. Notification of approval (or disapproval) of the project will be sent to parents and/or teachers from the Director. **Experimentation may NOT begin for these projects until approval has been granted.**
- Projects Using Vertebrate Animals Approval Form
- (4) If a project uses non-human vertebrate animals in which the animals are only **observed in their natural setting** with no manipulation, no additional approval is required.
- (5) All approval forms may be obtained from the science fair website, teachers, or the Director.