



2008 Elementary Science Competition

Who: Elementary grade students (4th, 5th or 6th grade level)

What: New Science & Technology Competition

When: During participating county fairs and at Oregon State Fair 08/22/08 – 09/01/08

Where: Various statewide county fairgrounds and at Oregon State Fairgrounds

Why: To foster Science & Technology education and innovation

Summary:

A new statewide Science and Technology competition will begin in 2008 with elementary school students. The competition will grow to include other academia levels and entrepreneurial endeavors in subsequent years. The elementary grade competition will be a derivative of the current competition guidelines developed by Intel Northwest Science Expo (NWSE). The guidelines set forth by Intel NWSE were selected due to the familiarity and program awareness by the Oregon Science Teachers Association (OSTA). A few of the categories were removed from the Middle School Rule Booklet to accommodate a younger audience.

How to participate:

Students have a couple options when it comes to participation, the first of which is through their participating local county fair. If the student resides in a participating county, that student must enter through that county fair through their local 4-H extension office (please note that 4-H membership is not required). The student is encouraged to notify their respective science teacher then register through their local 4-H extension office. Of those that enter through the county fairs, the 1st place winners will be invited to a statewide competition culminating at the Oregon State Fair on Monday August 25, 2008. We are encouraging the competition to begin at the county level and proceed towards the state level.

The second option is to enter directly through the Oregon State Fair. If the student resides in a non-participating county, the student can enter directly through the Oregon State Fair under Youth Open - Elementary. The option of entering directly to the state fair allows another option for students to take should they wish to participate and have no direct means of competing at their county level. Entering directly through the Oregon State Fair is only an option for those students who reside in a non-participating county.

Entry Fee:

The fee for each project entry is \$5.00 at the county level and at the state level to help cover costs. No further entry fee is needed for those that proceed to state fair.

Competing Categories:

County

Youth Open – Elementary

Students will also have the option of participating in one of two size categories. Students can select to participate in either individual/small team (1 to 3 people), or large team (4 or more people).

How to begin:

Once students have either contacted their local science teacher and/or a local 4-H Extension Office representative, both a registration form and project entry form will need to be filled out, submitted, and received by the participating county fair (or state fair depending on county fair availability). Both the registration and project entry forms are available: online at www.oregonstatefair.org/competitions/science , through your science teacher, or through your local 4-H representative. Once complete, both forms can be faxed or mailed to your 4-H representative or to the state fair if participating under Youth Open – Elementary.

The first thing to do is to fill out and submit a registration form 30 days prior to the competition. One registration form is needed per person. The registration process provides general information and serves as notice of intent to compete. If participating through a local country fair, be sure to the confirm dates with the local 4-H representative. If participating through the state fair, registration is due by Friday 07/25/08.

Next, each participant will need to fill out a project entry form and have it submitted for the competing category 14 days prior to the competition. The project entry form provides clearance authorization and competing category detail. Be sure to fill out the project entry summary as much as possible even if final results are not known. The information compiled will allow for proper resource allocation at the time of competition. If participating through a local country fair, be sure to the confirm dates with the local 4-H representative. If participating through the state fair, project entry form is due by Friday 08/08/08.

Only one entry per student within each size category (individual/small team, large team) and only one competing category (county fair or Youth Open-Elementary) will be accepted.

For the competition:

Contestants will need to provide a completed project entry form (includes project summary) and project procedures either posted or in a lab notebook. The lab notebook can also hold additional graphs and data tables.

The competition at the Oregon State Fair for both the county winners and Youth Open – Elementary will be held on Monday 08/25/08 during fair. The winners in each respective category will be rotated and displayed during Oregon State Fair.

Awards given at county fair level (individual/small team, large team):

County Fair – 1st, 2nd, 3rd

Advancing to the state fair - Each of the county fair's winning entries will automatically qualify for the Oregon State Fair contest. Again, entering directly through the Oregon State Fair is only an option for those students who reside in a non-participating county and will be entered under Youth Open - Elementary.

Awards given at state fair level (Individual/small team, large team):

County to State Fair – 1st, 2nd, 3rd

Oregon State Fair Youth Open – Elementary – 1st, 2nd, 3rd

Project Categories:

Biology – Animal Sciences, Plant Sciences

Earth – Geology, mineralogy, climatology, geography, meteorology and soil

Consumer Products Testing – Product quality, effectiveness, usefulness, economy, cost, smell, and environmental friendliness

Energy & Transportation – Alternative fuels, fossil fuel energy, solar energy, wind energy, wave energy, and conservation of energy

Environmental Science – Study of pollution, sources, controlling pollution and waste management

Sustainability – Recycling or reuse comparisons, conservation and green living

A student may have only one project. Team projects are allowed and may be judged in large or individual/small team categories.

Note: At the Elementary level, Microbe Cultures, Human Subjects and Hazardous Chemicals, Activities and Devices are not allowed.

Selecting a Category

The key for selecting your category is the “Dependent Variable” – the thing that is being measured or affected. For example, if a student examined the effects of the composition of the soil on plant growth, the dependent variable would be the height of the plant since that is what the student is trying to measure and this project would be under Biology/Plant Sciences. If the student examined how plant growth changes the composition of the soil, then the dependent variable is the composition of the soil and the project would be under Earth Sciences-soil sciences.

Rules for Elementary Projects

Vertebrate Animals

Two types of Vertebrate animal projects are allowed:

1. Observational studies of behavior of animals in their habitat (this includes the home for pets, the zoo and nature) where there is NO intervention or treatment.
2. Behavioral projects for pets involving doing things that pets experience in every day life, i.e. new food dish, supplemental treats (following label recommendations), a new toy.

Pets are defined as animals not acquired specifically for a research project.

Human and Vertebrate Animal Tissue

The following human and animal tissues are allowed:

- The researcher's own nail clippings
- Hair
- Sterilized teeth
- Meat or meat by-products obtained from a store, with receipt
- Fossils
- Prepared fixed tissue slides

Not Allowed – All other projects involving human and animal tissue, including those involving organs, non-sterilized teeth, blood and other body fluids.

Display Regulations

The poster is the first thing the judges see when they review your project. It is important to make a good first impression, to do your best at the start and to organize your information in a clear way.

Size requirements:

The following is recommended for the space available for the poster and any additional items:

- 30 inches deep
- 36 inches wide
- 78 inches high from top of table

Do not include at the display:

- Living organisms-plants or animals or dead parts of animals or plants (processed/dried plant materials are allowed as part of the display)
- Any liquids
- Dirt, soil, bark chips or sand
- Aerosol bottles or other pressurized gases
- Glass
- Open top batteries
- Hazardous substances or devices including lasers
- Sharp items
- Flames or highly flammable items
- Any human or animal food

Basically if it can spill, hurt, or cause an allergic reaction it is not allowed.

Acknowledgements to specific people, organizations, or School names are allowed.

Also allowed with restrictions:

- Photographs – you must have permission to post a person’s picture or make the person unidentifiable. You must also list the source of any photographs. If you are using pictures obtained from the internet, there are special considerations.
- Electricity may be allowed with permission

Hints for a good poster:

Good title – Your title is a very important attention getter. A good title should simply and accurately present your project and depict the nature of it. The title should be no longer than 10 words.

Nice Visuals – Photographs, drawings, charts and graphs that explain your project and results should be clear, well done and easy to understand.

Be organized – Make sure your display follows a sequence and is logical and easy to read. A glance should permit anyone (especially the judges) to quickly locate the title, summary, experiments, results and conclusions.

Clearly presented – Be aware that the font size needs to be large enough to read from 3 feet away. Make sure the poster has all the information the judges will need.

All exhibits need to have their entry form and project procedures either posted or in a lab notebook. The notebook can also hold additional graphs, data tables and useful background information.

Presentation:

Each project entry will require a participating representative(s) to present their science project and their findings to the judges during the competition.

Judging:

County Fair – Local science teachers or 4-H SET judges

State Fair – Local science teachers or 4-H SET judges

All categories will be judged by the same judges at each respective venue to assure consistency.

Overall Judging Methodology:**Student's involvement with science**

Introduction – Statement and identification of problem	20%
Acknowledgement of sources and major assistance received	10%
Research design, procedures (materials & methods), results	20%
Discussion/Conclusions	20%

Student's effort and performance

Duration of research – amount of work involved, acknowledgment of major assistance and evidence of student's understanding	10%
Presentation	10%
Abstract	10%
Total	100%

For more information:

Oregon science teachers and participants are invited to contact their local participating county fair or 4-H Extension office for further detail. The Oregon State Fair will coordinate competition with 4-H and participating county fairs. General information and required forms will be posted at www.oregonstatefair.org/competitions/science. Please direct any questions to Jeff Trejo at the Oregon State Fair via email jeff.trejo@state.or.us or by phone at 503-947-3257.