

## **SCIENCE & TECHNOLOGY**

### **Superintendent:**

Kelly Kujat (810) 304-2078

Judging: Saturday at 1 p.m., with interview (before fair)

Location: Still Exhibit Barn

Project Set Up: Friday at 6:30 p.m.

Check in Time: Saturday at 1 p.m. (before fair)

Check out Time: Saturday 7-8 p.m. or Sunday 8-9 a.m.

Premiums: A=\$4; B=\$2; C=No premiums.

### **Project Requirements:**

1. Exhibitors must be present for interview.
2. Projects are to be in place by judging time and must remain in place until project release time.
3. Entries should be limited to one per category, unless entries are significantly different.
4. Entries should include some sort of poster or report to be displayed during the week of the fair even if project is completely electronic.

### **Division 3701 – Science Exhibit/Demonstration**

Projects can be an educational exhibit of some phase of science including astronomy, chemistry, biology, physics, or any other branch of science. Projects can be either on a poster board, in a booklet, or a constructed article illustrating the scientific method. Areas to be discussed are as follows: title, abstract, question or problem, background information, hypothesis. Must include independent, dependent, and controlled variables, materials, procedures, data analysis, including data tables, graphs, and written observations, conclusions (including future research), bibliography. For additional support please visit:

[www.livebinders.com/play/play\\_or\\_edit?id=47700](http://www.livebinders.com/play/play_or_edit?id=47700)

**Class 01** Science Projects, Ages 8-12 years old

**Class 02** Science Projects, Ages 13 yrs. and over

### **Models (Rockets, Spaceships or Airplanes)**

All models must include a one-page project story by the exhibitor on the model, what they learned about it and how they built it. (Non-flying demonstration.)

**Class 03** Models, Ages 8-12 years old

**Class 04** Models, Ages 13 years and over

### **Demonstrations**

Demonstrations should be presented in front of the judges using proper lab safety procedures and should not last any longer than 5 minutes. There must be a report of the demonstration explaining how the demonstration was performed and what was learned from the demonstration, pictures are encouraged. Materials from the demonstration should be displayed during the week of the fair.

**Class 05** Demonstration, Ages 8-12 years old

**Class 06** Demonstration, Ages 13 years and over

### **Division 3702 – Computers**

An exhibit must include a poster and/or booklet which displays (hard copy) results of the computer project. The explanation should also show the steps used in designing the project. Please be sure to explain the purpose that the project can serve (i.e., a database for correspondence to a group for a specific purpose, a spreadsheet, an app, and maybe graphing to show the relationship between animal feeding and weight gain, etc.). Internet sites must have a sample of the printouts of the web pages with the complete URL addresses, along with an explanation of why this site is interesting and/or useful. The website should be fully functional and accessible through a **device brought in by the exhibitor during judging. Exhibitors must bring their own electronic device** to show the judges their functional project. All projects should be printed out on a hard copy should there be a malfunction of hardware or software and to be displayed during the week of the fair.

**Class 07** Create any graphic project

**Class 08** App design

**Class 09** Computer programming

**Class 10** 3-D printing

**Class 11** Computer building/design

**Class 12** Create a computerized presentation

**Class 13** Report on the history of computers\*

**Class 14** Report on specific application software

**Class 15** Report on an imaginary or realistic invention\*\*

**Class 16** Create your own web page

**Class 17** Create a media presentation (video, Tiktok, etc.)

**Class 18** Any other computer project not listed

\*Computers or Computer language.

\*\*Invention of hardware or software & what function and purpose the invention would serve and who would use it.

### **Division 3703 - Robotics**

Exhibitor designs and constructs a robot to perform a specific task(s). A log book of data collected and a report of what was learned from the project should be created for judging.

**Class 19** Robotics, ages 8-12 years old

**Class 20** Robotics, ages 13 and over

**Class 21** Robotics Club Project

## **SCIENCE & TECHNOLOGY CONTINUED**

### **Division 3704 – Model Planes**

Exhibitors fly their constructed or borrowed model plane using basic knowledge, physics and aerodynamics.

Judging: Friday at 9 a.m., with interview (during fair)

Location: Propbusters field (east of Crater)

**Class 30** Model Plane, ages 8-12 years old

**Class 31** Model Plane, ages 13 and over

**Division 3705 – Model Rocketry**

Exhibitors construct a model rocket using basic knowledge, physics and aerodynamics. Exhibitors will fly their model rocket.

Judging: Friday at 9 a.m., with interview (during fair)

Location: Propbusters field (east of Crater)

**Class 35** Model Rocketry, ages 8-12 years old

**Class 36** Model Rocketry, ages 13 and over