

MECHANICAL SCIENCE

(Science, Technology, Engineering, and Mathematics)

Superintendent: Susan Gormley, susangormley@earthlink.net

Entries due: August 7th – August 23rd

Enter at: <https://king-county-4-h-virtual-showcase-2020.fairentry.com/Fair/SignIn/14839>

- Only open to enrolled project members.
- Other entries can be made in Educational Displays (Posters) and Judging.
- Information must be complete, legible and accurate.
- Judging will consider the age of the exhibitor. Write age of member in the description field of Fair Entry along with number of years in project.
- All entries will be judged using the Danish System.
- Up to 8 photos and/or documents need to be uploaded as required or needed
- **VIRTUAL ENTRY PHOTO TIPS: Take photos in a well-lit area. Try to reduce as many shadows and glares as possible. Be sure the entire exhibit is visible in the photo. The first picture will be in the virtual display, and must show the whole item from a front perspective. Try to use a solid background.**

Check the notes in each section for the required and optional photos.

Premium Points, Classes 1 - 6: Blue 20

Red 15

White 12

- Please use simple class/lot name on entry forms, as appropriate.
- Exhibits must be made in the current 4-H project year and/or not have been entered in previous fairs.

Class 1: WOODWORKING:

- ***Entry must be accompanied by a brief description about the technique used and what was learned. This is to give your insight on the project to the judge. Ribbon placing may be lowered one level if this requirement is not fulfilled.***
- Exhibits may include built, sculpted or carved items.
- Be sure the entire entry is visible in the photo. Take a second photo showing a joint. A third photo is to show the exhibit's back side A fourth photo showing the underneath. Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.

Class 2: AEROSPACE (Rockets):

- Each entry must include design plan or design sheet (instructions) and have been flown prior to exhibit. (Word, PDF or Photo)
- Certification of flight required for all exhibits. (Word, PDF or Photo)
- Model rocketry exhibits will be judged on stability, workmanship, methods of construction appropriate for the type/power the rockets is flown under, and the degree of difficulty/challenge. Degree of difficulty/challenge will be determined by the judge for LOTS

A & B.

Lot A – Model rockets built from plans other than commercially available kits.

Exhibit must include original plan as well as method(s) used to verify stability prior to first flight.

Lot B – Model rocket designed and built by the exhibitor, “scratch built”.

Exhibit must include design plan followed and method(s) used to verify stability prior to first flight.

Lot C – Model rocket from commercially available kits.

Exhibit must have been built following instructions/plans included with the kit. Exhibit must include original or copy of the kit instructions/plans. Include “Level of Difficulty” per the kits manufacture.

Lot D – Model rocket kits redesigned by exhibitor.

Exhibit must include original or copy of the kit instructions/plans and a description of the redesign. Include “Level of Difficulty” per the kits manufacture. Exhibit must include method(s) used to verify stability prior to first flight.

Lot	Project	Exhibit	Suggestions
A, B, C, D	Aerospace	Model Rockets	Rockets will be judged on workmanship only They don't need to have been flown. Attach photos of the (A) the entire rocket, (B) 2 close-up photos of different fins showing how they have been attached (C) one looking up the rocket from the bottom to check for alignment (D) one showing the recovery system (E) Please include the name of the model or if designed by exhibitor, Skill Level, Exhibitor's age and how many years in the project in the description box when entering.
	Aerospace	Any Other Aerospace Project	(1) Can be a display designed to educate the public about some aspect of the Aerospace project. (2) And/or a project made by the exhibitor other than a model rocket. Examples might include paper or water rockets. Photos should include one of the entire project, and as many photos as needed to show different angles of the project. (3) Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.

Class 3: Bicycle / Engines / Snowmobiling / Electricity:

- Working exhibits (i.e. electricity) must be appropriately recorded in action and uploaded into FairEntry.
- Other examples of exhibits can include posters and interactive displays.

Lot	Project	Exhibit	Suggestions
-----	---------	---------	-------------

Class 3	Bicycle	Bicycle Care & Safety	Can be a display designed to educate the public about some aspect of the Bicycle project. Take one photo of the entire project display and additional photos where needed, so the parts can be easily viewed and read. Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.
---------	---------	-----------------------	---

Class 4: Welding:

- All exhibits should be presented with safety in mind – no sharp edges or points.
- Examples of entries:
 - Simple - A display board featuring at least 3 different types of welds. (Welds should be labeled)
 - Advanced - A display board featuring at least 6 different types of welds. (Welds should be labeled)

Class 5: Computer Technology:

- Examples of exhibits can include posters or interactive displays showcasing computer generated items such as flyers/pamphlets, greeting cards, digital artwork, certificates, newsletters, spreadsheets, calendars, web/magazine pages or other media displays, programming, toolkits, etc.
- Computer slide-shows require music or narration, be a minimum of 3 minutes and programmed to automatically advance to the next slide. Presentation must be submitted on flash drive for judges viewing. A poster showing printouts of slides and, if applicable, typed narration for each slide, for presentation to public.

Class-Lot	Project	Exhibit	Suggestions
Class 5	Computer	Computer generated Flyers/Pamphlets, Greeting Cards, Certificates, Spreadsheets, etc.	Computer Generated Media. Upload 1 or more photos as needed to include all pages. Excel spreadsheets, docs etc. can also be uploaded. Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.
Class 5	Computer	T Shirt Design, Digital Art	T Shirt Design: Design should be computer generated and displayed on a T Shirt. T-Shirt can be displayed worn or lying on a flat surface. Upload 1-8 photos of T-Shirt or Digital Art pieces. Take the photo in a well-lit area. Try to reduce as many shadows and glares as possible. Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.
Class 5	Computer	Magazine, Newspaper, Computer Program	Magazine or Newsletter must be at least 8 pages. Pages can be uploaded as a document, PDF or up to 8 photos. Make sure to include all pages. Computer program must be written by the exhibitor. Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.

Class 5	Computer	Slide Show	<p>Slideshow should include music or narration and be programmed to automatically advance to the next slide.</p> <p>Upload as a PowerPoint presentation</p> <p>Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.</p>
Class 5	Computer	Other computer-generated items, equipment, displays etc	<p>(1) Can be a display designed to educate the public about some aspect of the Computer project.</p> <p>(2) And/or a project made by the exhibitor. Photos should include one of the entire project, and as many photos as needed to show close ups and different angles of the project. A display telling about the project can be included.</p> <p>(3) Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.</p>

Class 6: Models (not applicable to other categories):

- All exhibits must be permanently glued together.
- Legos should be entered in the Lego Department.
- Be sure the entire entry is visible in the photo. Take a second photo showing a joint. A third photo is to show the exhibit's back side A fourth photo showing the underneath. Please share what the project is/used for, the exhibitor's age and how many years in the project in the description box when entering.