

DEPT H – COMPUTER MYSTERIES

Judge: Ag Engineering Team

Purple award \$3.00; blue award \$2.50; red award \$2.00; white award \$1.00

One article may be exhibited per premium number **with a limit of four articles per project.**

***Indicates County Fair exhibit only. Exhibitors should try, where possible, to fit their exhibit into an area with a State Fair entry.**

Computer Mysteries Unit I

- *H-860-901 Commercial Software Utilization – Exhibit will be a notebook of the documentation and printouts using each section of the commercial program (i.e., Microsoft Works: Word processor, Database, Spreadsheet). The notebook will consist of the following areas: 1) cover page, 2) print outs of each of the sections offered by the software, and 3) a paragraph explaining how each section can be used. (This may be an exhibit you work on over 3 years. Include all work in one notebook, but show which work is completed each year.) Include in your exhibit information required in H-860-1.
- *H-860-903 Computer Art Poster (Black & White) – Exhibit should be created on at least 8 1/2"x11" paper using a commercially available graphics software package and a single-color printer. Mount on a poster board no larger than 11"x14". No theme required. Attach an explanation of what you did to create this poster.
- *H-860-904 Computer Art Poster (Color) – Exhibit should be created on at least 8 1/2"x11" page using a commercially available graphics software package and a color printer. Mount on a poster board no larger than 11"x14". No theme required. Attach an explanation of what you did to create this poster.
- *H-860-905 Computer Designed Greeting Cards – Exhibit will consist of six (6) greeting cards, each for a different occasion/holiday. Exhibit should be created on 8 1/2"x11" paper using a commercially available graphics program and a color printer. The cards should vary in folds and design. Tell which software program was used. Prefabricated cards from commercially available card programs will NOT be accepted. No theme required. Mount cards on a poster board. Cards need to be designed by the 4-H'er, not just edited. 4-Hers need to use different fonts and more graphics not just click on a premade card.
- *H-860-906 E-mail – Exhibit will consist of a paragraph typed and sent via e-mail to the judge's e-mail address (mnordboe2@unl.edu) by 6:00 p.m. on Tuesday, August 10. Text of the paragraph should include the steps taken to send the e-mail. Print off e-mail and attach entry tag for this exhibit so ribbon can be attached.
- *H-860-907 E-mail + attachment – Exhibit will consist of a one paragraph e-mail introducing your project and explaining about the software used. The attachment will be at least half page text telling the steps taken to complete and send the e-mail and the attachment and the benefits of this project. The entire project must be sent to the judge's e-mail address (mnordboe2@unl.edu) by 6:00 p.m. on Tuesday, August 10. Print off e-mail and attach entry tag for this exhibit so ribbon can be attached.

- *H-860-908 Internet Exploration – Exhibit will be a notebook consisting of the following: a) printout of five (5) websites, b) description of what you liked or did not like about each site, and c) how you will use the internet in the future.
- *H-860-909 4-H Promotion Flier – Exhibit should be created on 8 1/2"x11" page using a commercially available graphics software package. Flier can be color or black & white. Fliers can be a whole page or a folded flier. Flier should include information on an event or activity. (Exhibit is not a poster). Put exhibit in protective cover.
- *H-860-910 Cyber Card – Exhibit will consist of two cyberspace greeting cards sent to the judge's e-mail (mnordboe2@unl.edu) address by 6:00 p.m. on Tuesday, August 10. Exhibit will be a printout of each card. Put exhibit in protective cover. Cyber cards are found on the Worldwide Websites and can be sent to e-mail address.
- *H-860-911 Any other computer application not listed above (ex. Computer art on clothing, family tree generated on the computer, projects scanned, digital video, collage, scratch exhibit, etc.). Attach an explanation of what was done to create the exhibit.
- *H-860-912 Interactive Video Gaming Systems (ex. Wii, Xavix) Exhibit – Poster (can be science fair type display) or notebook exhibit of your experiences with an interactive video gaming system (ex. Wii, Xavix) listing the programs that you use, accessories required, documenting the hours you have played, advances you have made in each of the programs, health and fitness benefits gained, personal goals for continued use of the interactive video gaming system, details of who you have taught to use the interactive video gaming systems and other information that will be helpful in evaluating your experiences with an interactive gaming systems. Photos can be included with you and others featured in the photo.

Computer Mysteries Unit 2

- H-860-001 Computer Application Notebook – 4-H exhibitor should use computer application to create a graphic notebook utilizing computer technology. 4-H'er may create any of the following: greeting card (5 different cards should as a birthday, wedding, anniversary, sympathy get well or other); a business card (3 cards for 3 different individuals and businesses); menu (minimum of 2 pages including short description of foods and pricing); book layout (I-book); promotional flyer (3 flyers promoting 3 different events); newsletter (minimum 2 pages); or other: examples such as precision farming or family business logo etc. This exhibit consists of a notebook (8.5 x 11 inches) which should include a (1) detailed report describing: (a) the task to be completed, (b) the computer application software required to complete the task, (c) specific features of the computer application software necessary for completing the task (2) print out your project. Project may be in color or black and white.
- H-860-002 Produce a Computer Slide Show Presentation (SF 277) – Using presentation software a 4-H exhibitor designs a multimedia computer presentation on one topic related to youth. All slide shows for county fair should be emailed to mnordboe2@unl.edu before August 9. Files must be saved in a PC compatible format with county name and last name of participant before emailing or the slide show may be shared through a share link or QR code which is included in the notebook. A notebook with a printout of all the slides should be submitted. Slide Show should include a minimum of 10 slides and no more than 25. Incorporate appropriate slide layouts,

graphics, animations, and audio (music or voice and transition sounds do not count). Each slide should include notes for a presenter. All slide shows must be uploaded.

H-860-010 Careers Interview (SF 239) – Interview someone who is working in the field of computers and research that career. Interviews can either be written or in a multimedia format (CD/DVD). Written interviews should be in a notebook. Written reports should be 3 to 5 pages, double space, 12-point font, and 1” margins. Multimedia reports should be between 3 to 5 minutes in length.

Computer Mysteries Unit 3

H-860-003 Produce an Audio/Video Computer Presentation (SF 276) – Using presentation software a 4-H exhibitor designs a multimedia computer presentation on one topic related to youth. The presentation can also be uploaded to a video streaming application and exhibitors must provide a hard copy QR code for viewing. The presentation must be able to be played and viewed on a PC using Windows Media Player, Real Player, iTunes, or QuickTime Player. A notebook with a printout of all the slides should be submitted. The presentation should be at least 2 minutes in length and no more than 5 minutes in length, appropriate graphics, sound and either a video clip, animation, or voice over and/or original video clip.

H-860-004 How to STEM (Science, Technology, Engineering and Math) Presentation (SF 276) – Youth design a fully automated 2 to 5 minute 4-h “how to” video. Submissions should incorporate a picture or video of the 4-Her, as well as their name (first name only), age (as of January 1 of the current year), years in 4-H, and their personal interests or hobbies. Videos should be designed for web viewing or may be uploaded to a video streaming application and exhibitors can provide a hard copy QR code for public viewing. Any of the following formats will be accepted: .mpeg, .rm, .wmv, .mp4, .ov, ppt, or .avi.

H-860-005 Create a Web Site/Blog or App – Design a simple website/blog or app for providing information about a topic related to youth using either software programs such as an HTML editor like Microsoft’s FrontPage or Macromedia’s Dreamweaver, and image editor like IrfanView or GIMP or online using WIKI such as Google Sites. If the website, blog, or app isn’t live include all files comprising the website, blog, or app should be submitted on a flash drive in a plastic case along with the explanation of why the site was created or may be shared through a hard copy share link or QR code for viewing. If developed using WIKI or other online tool include a link to the website in the explanation of why the site was created.

H-860-006 3D Printing - 3D printing uses plastic or other materials to build a three-dimensional (3D) object from a digital design (including 3D Pen Creation). Youth may use original designs or someone else’s they have redesigned in a unique way. Exhibits will be judged based on the motivation and/or problem identified. For example, 3D objects printed as part of the design process for robot or other engineering project. Must include design notebook that addresses the following questions:

1. What was the motivation for your design or the problem you were solving with your design? ie. is your item a functional or decorative piece?
2. Please include a picture of original design, citation of designer/website OR if design is completely original (you created it using CAD software), then state that it’s original. If item was not completely original, indicate what you did to the original design to modify it to better meet the design problem stated in #1 above. Its design was modified multiple times, please indicate what change was made with

each modification, and what prompted the need for the change. I.e. I printed it and the design was too fragile, so I resliced the print to make thicker external walls, or to have a denser infill.

3. Define your process for designing/printing. What software and/or hardware was used (indicate type of 3D printer or if item was created with 3D pen)?
4. What materials were selected for your project?
5. If your final design has any moving parts, define how you determined appropriate allowance in your design.
6. Identify any changes that you would make to improve your design.

H-860-007 Maker Space / Digital Fabrication – This project is a computer-generated project created using a laser cutter, vinyl cutter, heat press or CNC router. Vector or 3D based software such as Corel Draw or Fusion 360 would be an example of an appropriate software used to create your finished project. Project should include a notebook with the following:

- What motivated you to create this project
- Software and equipment used
- Directions on how to create the project
- Prototype of plans
- Cost of creating project
- Iterations or modifications made to original plan
- Changes you would make if you remade the project

Team Entry Option: To qualify for entry at the Nebraska State Fair team materials entered in H860007 – Maker Space/Digital Fabrication must clearly be the work of a team instead of an individual and must have at least 50% of all team members enrolled in 4-H. Additionally, all enrolled 4-H members on the team should complete and attach an entry tag to the materials. A supplemental page documenting the individual contributions to the project should be included. The entry will be judged as a team, with all team members receiving the same ribbon placing.