

## DEPT H – COMPUTER MYSTERIES

Judge: Stacey Keys

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

**Exhibits be will be judged at 6:15 p.m. on Wednesday of County Fair**

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.**

Members wishing to interview judge their exhibits are asked to report to the 4-H Building at 6:15 p.m. on Wednesday, August 8. To allow for more flexibility in what you create for your computer exhibits members are encouraged to bring their own computer to demonstrate their exhibits to the judge. No internet service is available in the 4-H Building. If you need internet you will need to provide your own internet wireless card (hotspot). If you do not have access to a laptop computer please work with Extension Assistant prior to County Fair to make sure that a fair laptop has the programs required to read your exhibit, whether you interview judge or not.

### 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 ([Stacey.Keys@unl.edu](mailto:Stacey.Keys@unl.edu)) by 6:00 p.m. on Tuesday, August 8. 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 ([Stacey.Keys@unl.edu](mailto:Stacey.Keys@unl.edu)) by 6:00 p.m. on Tuesday, August 8. 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 ([Stacey.Keys@unl.edu](mailto:Stacey.Keys@unl.edu)) address by 6:00 p.m. on Tuesday, August 8. 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 Poster – Exhibit designed to educate yourself and others on the use of computer application/program or techniques of internet/social media safety. Examples of the computer application/program could include but are not limited to: how to download digital photos from a camera and create a usable way of storing and accessing them in the future; details of how to use instant messaging programs like Skype; or how to create a social networking page (ex. "Facebook," "SnapChat," "Instagram," "Twitter," "FaceTime," etc.) Examples of internet/social media safety include but not limited to identity theft, predator safety, internet etiquette, social networking pages precautions, etc. Posters can be any size up to 28" x 22".

H-860-002 Produce a Computer Slide Show Presentation (SF 277) – using presentation software. All slide shows for state fair should be emailing to [Stacey.Keys@unl.edu](mailto:Stacey.Keys@unl.edu) before August 8. Files must be saved in a PC compatible format with county name and last name of participant before emailing. All county fair projects with a printout should be saved on a CD Rom to be submitted for county Fair. 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-860-920 Teach an Adult – The 4-H exhibitor write a report between 1 and 3 pages describing a situation in which he or she has taught an adult(s) a computer skill. The report should include pictures of the 4-H'ers working with the adult(s). The report should be in a clear plastic cover.

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-860-004 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 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. The presentation must be able to be played and viewed on a PC using Windows Media Play, Real Player, iTunes, or QuickTime Player.

H-860-005 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. Any of the following formats will be accepted: .mpeg, .rm, .wmv, .mp4, .ov, ppt, or .avi.

H-860-006 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 CD-ROM in a plastic case along with the explanation of why the site was created. If developed using WIKI or other online tool include a link to the website in the explanation of why the site was created.

H-860-007 3D Printing – Unique Items: 3D printing uses plastic or other materials to build a 3 dimensional object from a digital design. Youth may use original designs or someone else's they have re-designed in a unique way. Exhibits will be judged based on the complexity of the design and shape. 3D printing will include a notebook with the following: a) Software used to create 3D design, b) Design or, if using a re-design, the original design and the youth's design with changes, c) Orientation on how the object was printed. Suggested ideas: 1) 3D Prototypes – 3D objects printed as part of the design process for robot or other engineering project or cookie cutter, be creative. Must include statement of what design question the prototype was supposed to answer and what was learned from the prototype. 2) 3D Unique Object – 3D objects printed for their own sake. May be an art design, tool, or other object.

H-860-008 3D Printing Prototypes – 3D printing uses plastic or other materials to build a 3 dimensional object from a digital design. Youth may use original designs or someone else's they have re-designed in a unique way. Exhibits will be judged based on the complexity of the design and shape. 3D objects printed as part of the design process for robot or other engineering project or cookie cutter, be creative. Must include statement of what design question the prototype was supposed to answer and what was learned from the prototype. 3D printing will include a notebook with the following:

- a) Software used to create 3D design
- b) Design, or, if using a re-design, the original design and the youth's design with changes.
- c) Orientation on how the object was printed

H-860-009      3D Pen Creation: 3D pens rapidly melt and cool plastic filament allowing the 4-H'er to draw in 3D. Youth may use original designs or use a template to create their 3D item. Exhibits will be judged based on the complexity of the design and shape. 3D pen creation will include a notebook with the following:

- a) Copy of the template, if used, and description of any changes the youth created
- b) If not template used – an explanation of how the creation was built.
- c) Must include paragraph of what the youth learned while creating their project (i.e., way to improve their next creation)
- d) Paragraph on how 3D pens impact Science Engineering and Technology

\*H-860-932      Build Your Own Computer – (one component only) – Exhibit will be a notebook (8 1/2"x11") that includes: 1) cover page, 2) detailed report (2-3 pages) describing a specific computer component, a) describe the component's purpose, b) how it is used, c) the location, d) why components were chosen, e) cost of component from more than one source, and 3) pictures and supporting materials.

\*H-860-933      Write a Software Program – This project allows a 4-H'er to demonstrate his or her skills in writing a computer program using a common programming language. The program must demonstrate the use of data files and subroutines. It should demonstrate a high degree of organization and quality suitable for distribution to the general public. This exhibit consists of a notebook (8 1/2"x11") which should include these parts: 1) a cover page, 2) a report including a) what the software can do, b) why you wrote the software, 3) what features are included in the software, d) how you will use the program in the future, 3) a flow chart in block diagram form, and 4) an example of input and output.

\*H-860-934      Create Your Own Exhibit Poster (can be science fair type display) or notebook exhibit designed to educate yourself and others on the use of a computer application/program. Examples of the exhibit could include but are not limited to: a blog, podcast-audio or audio and visual, digital art, digital educational piece that has a specific educational goal, website, etc. If your exhibit includes a CD/DVD or files saved to a flash drive, please make sure that fair computer has the required programs loaded so that your exhibit can be opened during judging. Exhibitor is also encouraged to create a visual representation of your exhibit so people who visit the fair will be able to see what you have created.