DEPARTMENT H – **SET COMPUTERS**

This category gives 4-H'ers a chance to display their knowledge of computers. Through participation in this category, 4-H'ers will develop presentations that show judges their knowledge in the different aspects of computer science. Involvement in SET Computers gives participants a first-hand experience in modern technology. For help getting started with this project, contact the extension office.

DIVISION 860
Class
COMPUTER MYSTERIES - UNIT 1

901. **Create a Poster** on a lesson learned in Unit 1. Examples might include: hardware, software programs, how to take care of a computer and operating systems.
903. **Computer Art Poster (Black & White)** – Exhibit should be created on at least an 8½"x11" page using a commercially available graphics software package and a single-color printer/plotter. **NO** theme required.
904. **Computer Art Poster (Color)** – Exhibit should be created on at least an 8½"x11" page using a commercially available graphics software package and color printer/plotter. **NO** theme required.
905. **Computer Designed Greeting Card** – Exhibit will consist of six greeting cards -- each for a different occasion/holiday. Cards should be created on an 8½"x11" page using commercially available graphics program and either single-color or color printer/plotter. 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. Put cards in some type of protective cover.
906. **4-H Promotion Flier** – Exhibit should be created on 8½"x11" page using a commercially available software package. Flier can be color or black and white. Fliers can be a whole page or a folded flier. Put exhibit in protective cover.
907. **Internet Exploration** – Exhibit will be a notebook consisting of the following: 1) printout of five web sites; 2) what you liked and did **NOT** like about each site; and 3) how will you use the Internet in the future.
909. **Internet Web Site Creation** – Exhibit will be a notebook of the documentation and printout of the web site. The notebook should include: 1) cover page; 2) print-out of the web site; 3) summary page, including goals of the page, purpose, steps taken to create the page and intended audience; and 4) completed general record book.

COMPUTER MYSTERIES - UNIT 2

*1. **Computer Application Notebook** – 4-H'er should use computer application to create a graphic notebook utilizing computer technology. 4-H'er may create any of the following: greeting cards (5 different cards such as a birthday, wedding, anniversary, sympathy, get well or other); business cards (3 cards for 3 different individuals and businesses); menu (minimum of 2 pages including short description of foods and pricing); book layout (1-book); promotional flyers (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 (8.5x11 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; and (c) specific features of the computer application software necessary for completing the task (2) printout of your project. Project may be in color or black and white.
*2. **Produce a Computer Slideshow Presentation** – Using presentation software. A notebook with a printout of all the slides should be submitted. The slideshow should include a minimum of 10 slides and **NO** more than 25. Incorporate appropriate slide layouts, graphics and animations and audio (music or voice and transition sounds do **NOT** count). Each slide should include notes for a presenter. All slideshows must be uploaded. The exhibit includes a copy of the presentation saved to a flash drive or CD-ROM in a PC compatible format with county name and last name of participant.

COMPUTER MYSTERIES - UNIT 3

*3. **Produce an Audio/Video Computer Presentation** – Using presentation software, a 4-H'er 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 Player, Real Player, iTunes or QuickTime Player.
*4. **How to STEM (Science, Technology, Engineering and Math) Presentation** – 4-H'er designs a fully automated 2 to 5 minute 4-H "how to" video. Submissions should incorporate a picture or video of the 4-H'er, 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, mov, .ppt, or .avi.
*5. **Create a Web Site, Blog or App** – Design a simple Web site/blog or app for providing information about a topic related to 4-H'er 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 a WIKI such as Google Sites. If the Web site, Blog or App isn't live, include all files comprising the Web site, 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 a WIKI or other online tool, include a link to the website in the explanation of why the site was created.
*6. **3D Printing - Unique Items** – 3D printing uses plastic or other materials to build a 3-dimensional object from a digital design. 4-H'er may use original designs or someone else's they have re-designed 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 or cookie cutter. Must include design notebook with motivation or problem statement the prototype was 3D printing. Notebook will include the following: (1) Define motivation/problem solved; (2) Software used; (3) Document purpose of material and print settings; (4) Material choice (PLA, PVA, ABS, etc.); (5) In-fill density; and (6) Moving parts.
*7. **3D Pen Creation** – 3D pens rapidly melt and cool plastic filament allowing the 4-H'er to draw in 3D. 4-H'er 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: (1) Copy of the template if used and the description of any changes the 4-H'er created; (2) If no template used – an explanation of how the creation was built; (3) **MUST** include paragraph of what the youth learned while creating their project (i.e. way to improve their next creation.); and (4) Paragraph on how 3D pens impact Science Engineering and Technology.
*8. **Maker Space/Digital Fabrication** – This 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: (1) What motivated you to create this project; (2)

Software and equipment used; (3) Directions on how to create the project; (4) Prototype of plans; (5) Cost of creating project; (6) Iterations or modifications made to original plans; (7) Changes you would make if you remade the project.