COMPUTERS

A. The name and county of each exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks so owner of the exhibit may be identified if the entry tag is separated from the exhibit.
B. Demonstration boards should include an overall title for the display, plus other necessary labeling.
C. Reports should be written using the scientific method whenever possible (Background, the Question or hypothesis, what you plan to do and what you did, Method used and observations, Results: what you learned. All reports should be computer generated and enclosed in a clear plastic cover. The reports should be attached securely to the display.

Team Entries: To qualify for entry at the Nebraska State Fair team materials entered in H860008 – 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 embers 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 the team members receiving the same ribbon placing.

COMPUTER MYSTERIES – UNIT 1

H860011 **Computer Designed Greeting Card** – Exhibit will consist of four (4) greeting cards, each for a different occasion/holiday. Exhibit should be created on 8 $\frac{1}{2}$" x 11" paper using a commercially available graphics program and a color printer/plotter or single-color printer/plotter. The cards should vary in folds and design. Prefabricated cards from commercially available card programs will NOT be accepted. No theme required. Place in a Ziploc bag.

H860012 **Internet Exploration**: Exhibit will be a notebook consisting of the following four areas: 1) Three emails sent requesting a reply, 2) The reply to each of the emails, 3) Printouts of three websites, and 4) What you liked and did not like about each website.

H860013 **4-H Promotional Poster**: Exhibit should be created on 8 ½" x 11" page using a commercially available graphics software package. Flyer can be color or black and white. Flyers can be whole page or a folded flyer.

H860014 **Use of Computer Teaching Aides**: Exhibit will be created using a commercial teaching aide computer program. Exhibit will consist of three levels of learning. Each level will contain a minimum of ten questions. Exhibit will be displayed using a creative notebook format containing: 1) Cover Page, 2) Printout of exhibit, and 3) One-page minimum text explaining the steps required to complete the exhibit and this type of program can be useful.

H860015 **Software Demonstration Exhibit**: This project gives the 4-Her an opportunity to demonstrate how to complete a task with a software package. Commercially available programs such as spreadsheets, databases, presentation package, accounting packages, internet website software, precision agriculture farming software, etc. should be used for the project. The exhibit will be in a notebook (8 ½"X11") and should include these parts:

1) Cover Page

2) A report describing:
   a. What task you are doing with the software
   b. Why you are using this software package
   c. What features of the software you are using
   d. How you will use the program in the future

3) Examples of input and output from the program

Simple word processing programs should not be used to complete this project. Examples of projects are: a PowerPoint presentation with at least 10 different slides using a minimum of four different layouts with the same background on all slides, a website created by the 4-Her, 10 cards/or posters made on a graphic program, five maps made with precision farming software, etc. Points will be given for degree of difficulty.

H860016 **Other Computer Mysteries:** Any level

COMPUTER MYSTERIES – UNIT 2

*H860001 **Computer Application Notebook –** (SF277) – 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 such 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 (8.5x11 inches) which should include a (1) a 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 of your project. Project may be in color or black and white. (Scoresheet SF278)

*H860002 **Produce a Computer Slideshow Presentation –** (SF276) – Using presentation software a 4-H Exhibitor designs a multimedia computer presentation on one topic related to youth. A notebook with a printout of all the slides should be submitted. Slideshow should include a minimum of 10 slides and not 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 presentation. All slideshows must be uploaded. Entries should be emailed to mmracek2@unl.edu by July 15th or entries can be uploaded to a cloud sharing service and exhibitors MUST provide a hard copy QR code for viewing. Exhibitors should test their codes or links on several devices to check for appropriate permissions for public viewing.

COMPUTER MYSTERIES - UNIT 3

*H860003 **Produce an Audio/Video Computer Presentation** – (SF276) - Using presentation software a 4-H exhibitor designs a multimedia computer presentation on one topic related to youth including audio and/or video elements. 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. Entries should be submitted to mmracek2@unl.edu by July 15th. Oor entries can be uploaded to a cloud streaming service and exhibitors MUST provide a hard copy QR code for viewing. Exhibitors should test their codes or links on several devices to check for appropriate permissions for public viewing. .

*H860004 **How to STEM (Science, Technology, Engineering and Math) Presentation -** (SF276) - Youth design 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. Entries should be submitted to mmracek2@unl.edu by July 15th or videos can be uploaded to a video streaming application and exhibitors MUST provide a hard copy QR code for viewing. Exhibitors should test their codes or links on several devices to check for appropriate permissions for public viewing.

*H860005 **Virtual Platform Presentation –** (SF276) – Youth design a fully automated educational presentation using (any multimedia platform such as Tik Tok, YouTube, Canva, Canvas, etc., explaining the process, experience, and/or presentation. All submissions must include a link to the virtual presentation. Entriesshould be submitted to mmracek2@unl.edu by July 15th . Entries can also be uploaded to a cloud sharing service. Exhibitors MUST provide a hard copy QR code for viewing. Exhibitors are encouraged to test their codes or links on several devices to check for appropriate permissions for public viewing.

*H860006 **Create a Webs ite/Blog or App** – (SF275) – Design a simple website, blog, or app for providing information about a topic related to youth. Include an explanation of why the entry was created. Any current website, blog, or app development platform is accepted such as Google Sites, iBuildApp, Wix, etc. If the website, blog, or app isn't live, include all files on a flash drive in a plastic case. Entries should be submitted to mmracek2@unl.edu by July 15th. Entries can be uploaded to a cloud sharing service Exhibitors MUST provide a hard copy QR code for viewing. Exhibitors MUST provide a hard copy QR code for viewing. Exhibitors are encouraged to test their codes or links on several devices to check for appropriate permissions for public viewing.

*H860007   **3D Printing –** (SF1050) - 3D printing uses plastic or other materials to build a 3-dimensional (3D) object from a digital design (including 3D Pen Creation). Youth 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. 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. Ie. 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 you design.
6. Identify any changes that you would make to improve your design.

*H860008   **Maker Space/Digital Fabrication** – (SF1051) - This project is a computer generated projected 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. Changes you make if you remade the project.

Resources:

- Computer Mysteries 1 – Learn about hardware and software; Discuss Internet safety; Create and save data
- Computer Mysteries 2 – Use Internet search engines; Take apart a computer; Participate in a chat room; Create a newspaper of magazine
- Computer Mysteries 3 – Build your own computer system; Design a Web site; Develop a multimedia presentation; Use spreadsheets.