

Computers
Division 860
Pay Category 3

Unit 1

901.* **Computer designed greeting card** - Six greeting cards, each of a different occasion/holiday. Exhibit should be created on 8 ½" x 11" paper using commercially available graphics programs and a color printer/plotter or single color printer/plotter.

902.* **4-H promotion flier** - Exhibit created on 8 ½" x 11" page using commercially available graphics software package. Flier can be color or black and white, whole page or folded.

903.* **Poster** - Create a poster on a lesson learned in Unit 1. Examples: software programs, how to take care of a computer, operating systems, etc.

904.* **Computer art poster, black & white** - Create a poster on an 8 ½" x 11" page using commercially available graphics software package.

905.* **Computer art poster, color** - Create a poster on an 8 ½" x 11" page using commercially available graphics software package.

Unit 2

1. **Computer Application Demonstration** - 4-H exhibitor demonstrates how to accomplish a task using a computer application software such as a spreadsheet, database, publishing, graphic design, accounting or precision farming program. This exhibit consists of a notebook (8 ½" x 11" inches) which should include (1) a cover page, (2) 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 and (d) other tasks that can be accomplished using the computer application software and (3) a print out of your project. Examples: design a logo for your school; enhance a digital image for a newspaper story; manage a checking account; create a poster to publicize an event; or to design scrapbook pages, or other.

2. **Produce a Computer SlideShow Presentation** - Using presentation software like Microsoft PowerPoint and following the *Checklist for Creating Your Next PowerPoint Presentation* located at

<http://cit.information.unl.edu/info0806.htm> the 4-H exhibitor develops a SlideShow about a topic related to youth. The SlideShow should include a minimum of 10 slides and no more than 25. Incorporate appropriate slide layouts, graphics and animations. Each slide should include notes for a presenter. The exhibit includes a copy of the presentation saved to a CD-ROM along with a printout of the notes pages in a clear plastic cover. Slide presentation should relate to one topic.

3. **Teach an Adult** - The 4-H exhibitor writes 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'er working with the adult(s). The report should be in a clear plastic cover.

Unit 3

5. Produce an Audio/Video Computer Presentation - Using presentation software a 4-H exhibitor designs a multimedia computer presentation on one topic related to youth. The presentation should contain a minimum of 10 computer screens and no more than 25, 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.

6. Build a Web Site - Design a simple Web site for providing information about a topic related to youth using multiple computer application software programs such as an HTML editor like Microsoft's FrontPage or Macromedia's Dreamweaver, and image editor like Irfan View or GIMP. All files comprising the Web site should be included on a CD-ROM and able to be viewed using both Internet Explorer and Mozilla. Exhibit CD in a plastic case.

7. Build Your Own Computer (one component only) - Exhibit will be a notebook (8½"x11") that includes a (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.

8. Mapping a Historical Site Within Nebraska - Using a global positioning system (GPS) devise and a geographic information system (GIS) computer software application program like Arcview create an 8½"x11" map and pinpoint of a historical site within Nebraska. Map should include title, base map, neat line, north arrow, and legend. Add 1-3 digital images of the historical site to the map and a brief explanation of the image and surrounding area, brief explanation of how photo was taken, camera, etc. Latitude and Longitude of the site, map datum used, position format used and a brief explanation of why you chose this site. Exhibit will include: 2-4 pg. report on map creation and the map itself enclosed in a clear plastic cover.

9. Hurricane Tracking Map - Exhibit will consist of a poster presentation using approved National Oceanic and Atmospheric Administration (NOAA) hurricane tracking maps. The maps can be of the Atlantic Ocean, the Pacific Ocean or the Gulf of Mexico. The tracking maps must have at least 1-3 hurricanes from the same hurricane season plotted on the map using different colors and different plotting shapes for each hurricane. The plotting point must be identified with a shape (dot, square, triangle etc.) and must be connected by a line showing the progression of the storm. The plotting point will be every 12 or 24 hours with the date located to the right of the plot point. Hurricane data can be located at: <http://www.wunderground.com/tropical/>. Poster size will be 14" x 22" and includes: **(1)** a title (include year of the hurricane season), **(2)** the name of the hurricane and **(3)** listed below the name of the hurricane in column format: the dates of the storm in sequential order, the plotted latitude and longitude at 12-24 hour intervals, the highest hurricane category, and the highest sustained winds. Please include the Title, Base map, Neat Line, North arrow and Legend.

10. Hurricane Tracking Poster – Exhibit will consist of a poster presentation using the approved National Oceanic and Atmosphere Administration (NOAA)

hurricane tracking maps. Go to the National Hurricane Center to print a hurricane tracking map at <http://2www.nhc.noaa.gov/>. Poster can be of the Eastern Atlantic, the Full Pacific or the Western Atlantic using different colors and different plotting shapes for each hurricane. The plotting point must be identified with a shape (dot, square, triangle, etc.) and must be connected by a line showing the progression of the storm. Plot points every 12-24 hours. Hurricane data can be located at: <http://www.wunderground.com/tropical/>. Include title, name of hurricane, date hurricane begins and ends, distance traveled, minimum wind speeds, types of categories and latitude and longitude, etc.

11. 4-H Youth Favorite Places - The 4-H exhibitor visits his or her favorite place in Nebraska. Using a Global Positioning Systems (GPS) receiver he/she records the latitude and longitude of his/her favorite place. The exhibitor also takes a digital picture of the favorite place. The exhibitor then uploads the data and picture to the 4-H Youth Favorite Places Web site at <http://www.youthfavoriteplaces.org/index.php>. Up to three sites can be included in the state fair exhibit which is to consist of a folder/notebook explaining the steps involved in entering the data to the 4-H Youth Favorite Places Web site. Fair exhibit will include: A folder/notebook including a report for each site visited and at least one and no more than five digital photos and captions of each site visited. The reports should explain how the 4-H'er participated in the national 4-H Youth Favorite Places project, recording the information and then uploading it to the Web site. Each report should include **(1)** the nearest city or town, **(2)** the county where the site is located, **(3)** the latitude and longitude of the favorite place, **(4)** an explanation of why this is their favorite place and why other people should visit the place and **(5)** list the steps for entering the data on the Web site for the national project. A printed copy of the Web site posting of each favorite place uploaded should also be included with the report in the folder. **NOTE:** 4-H exhibitor should choose a public location that others can visit; not their personal residence.

12. GIS Thematic "Poster" Map – Using any GIS software, create a thematic map. Thematic maps can utilize any subject of interest to the 4-H'er. Maps could be of Amelia Earhart's journey, Sir Francis Drake's voyage, population density maps, water usage maps, or 4-H projects in Nebraska (examples). Create a GIS Map using data from books and/or internet. Use reliable date, ex. U.S. Center for Disease Control or U.S. Census Bureau. Poster – 14" x 22", should include Title, Base map, Neat Line, North Arrow, and Legend. Identify the source of the information on the back of the poster.

13. 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 (8½"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, (c) 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.