

SCIENCE, ENGINEERING & TECHNOLOGY

DEPARTMENT H

► ALL STATIC EXHIBITS MUST HAVE RECEIVED A PURPLE RIBBON AT THE COUNTY FAIR TO ADVANCE TO THE STATE FAIR.

GENERAL INFORMATION

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 exhibit may be identified if the entry tag is separated from the exhibit.

Each individual is limited to one exhibit per class.

Several classes require a display board which should be a height of 24" and not to exceed 1/4" in thickness. A height of 23 7/8" is acceptable to allow for the saw kerf (width) if two 24 inch boards are cut from one end of a 4' X 8' sheet of plywood. Nothing should be mounted within 3/4" of the top or bottom of the board. (Example: Woodworking, Small Engines, & Electricity.)

Fabricated board such as plywood, composition board, or particle-type lumber may be used for demonstration displays.

Demonstration boards should be sanded and finished to improve their appearance. The finish on a demonstration board will be judged as a woodworking exhibit.

Demonstration boards should include an overall title for the display, plus other necessary labeling.

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.

COMPUTERS

Department H - Section 860
Premium Schedule B

► Exhibits will be entered prior to the Fair. Contact Extension Office for entry date.

COMPUTERS BOOTING UP - 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.
902. **Computer Art Poster (Black & White)** - Exhibit should be created on at least an 8 ½" x 11" page using a commercially available graphics software package and a single color printer/plotter. No theme required.
903. **Computer Art Poster (Color)** - Exhibit should be created on at least an 8 ½" x 11" page using a commercially available graphics software package and color printer/plotter. No theme required.
904. **Computer Designed Greeting Card** - Exhibit will consist of six (6) greeting cards, each for a different occasion/holiday. Cards should be created on an 8 ½" x 11" 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.
909. **4-H Promotional Flier** - Exhibit should be created on 8 ½ " x 11" page using a commercially available software package. Flier can be color or black & white. Fliers can be a whole page or a folded flier. Put exhibit in protective cover.

COMPUTER MYSTERIES – UNIT 2

- *1. **Computer Application** - 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 (3 different cards should be a birthday, wedding, anniversary, sympathy get well or other); a business card (2 cards for 2 different individuals and businesses); menu (minimum of 2 pages including short description of foods and pricing); cd cover (front and back); book layout (I-book); promotional flyer (2 flyers promoting 2 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.
- *2. **Produce a Computer Slide Show Presentation** - 4-H Exhibitor should use presentation software 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. 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. All slideshows must be uploaded

COMPUTER MYSTERIES – UNIT 3

- *4. **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 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.
- *5. **Know How Know Now Computer Presentation** - 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. Videos should be designed for web viewing. Any of the following formats will be accepted: .mpeg, .rm, .wvm, .mp4, .ov, .ppt, or .avi. Submissions in this category will be put on the web.
- *6. **Create a Web Site/Blog or App** - Design a simple Web site blog or app for providing information about a topic related to youth using software programs such as an HTML editor like Microsoft's FrontPage or Macromedia's Dreamweaver, and image editor like Irfan View 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, Blog or App should be submitted site 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.
- *7. **3D PRINTING:** 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.
- *10. **Careers Interview** - Interview someone who is working in the field of computers and research that career. Interview 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 spaced, 2 point font, and 1" margins. Multimedia reports should be between 3 to 5 minutes in length.