

# COMPUTER

## **DIVISION/GRADE:**

Level 1 : Grades 3, 4, 5 or open for no more than three years to 4-H members who feel they are capable of meeting the exhibit requirements of the project.

Level 2 : Grades 6, 7, 8 or those who feel they are capable of meeting the exhibit requirements of the project.

Level 3 : Grades 9, 10, 11, 12 or those who feel they are capable of meeting the exhibit requirements of the project.

Years in Level: Exhibitors may only exhibit in Level 1 for three years.

## **RULES:**

1. Exhibit Categories:

a) Posters: Refer to poster section on page 16 for poster requirements. All posters must comply with these rules.

b) Notebook Report: Must contain color printouts of presentation materials, must include cover page and outline of project. Outline should be typed and printed showing; Name of 4-Her, Grade and Level, Subject, Item Description, Software Used to Complete Project

c) Action Demonstration: If you choose this option, check with the Extension Educator as to the location and time when your action demonstration will be presented. An action demonstration may be presented on any topic listed under the topic section or presented below.

2. If you choose to develop a computer program; a poster or notebook report depicting the program will be necessary for display at the fair.

3. 4-H member should complete each exhibit option only once.

4. While youth are encouraged to develop programs that can be published either on the web or via CD/DVD or USB Flash Drive. Publishing the program is NOT a requirement or an expectation. Any USB Flash Drive will be returned to the exhibitor.

5. The exhibit topics provide ideas/suggestions for exhibits. Other exhibit topics are acceptable as long as they are comparable in knowledge and skill.

## **EXHIBIT:**

RECORD SHEETS – A completed Computer Record Sheet must be submitted with the project exhibit at check-in time.

### **Level 1 – Suggested Exhibit Topics**

Your poster or display may cover one of the following areas (if you have exhibited one of these categories previously, then do not use that category again):

1. An educational display you could use at school or for a demonstration that shows one part or several parts of computer equipment. Example: A poster showing the parts of a home computer system, or a poster illustrating the differences in the storage devices used in computers, or a poster showing how CD-ROM works. (Anything educational illustrating computer hardware would be acceptable. If you have questions, call your 4-H leader or the Extension Office. This could be done two different years.)
2. A poster showing how computers are used to accomplish different tasks.
3. A poster showing how a career or occupation has been dramatically changed by computer technology.
4. A poster on any topic covered in the manual.
5. Any exhibit as described in the Level 1 manual.

6. **Cards for all Occasions** – Develop a series of four to six greeting cards for a variety of holidays or special occasions. Use clip art, scanned photos, or draw your own pictures. Can use any software graphics tool such as “Word”, “WordPerfect”, “PrintShop” or “Publisher”.
7. **Graphic Illustration** – Use a software program such as “adobe Photoshop”, “adobe Illustrator”, “Kid Pix Studio”, or “CorelDRAW”, to make your own drawing and print it. Be creative.
8. **Computer Presentation** – Use a presentation software program such as “PowerPoint”, “Kid Pix Studio”, or “HyperStudio” to design a computer presentation on a topic you enjoy. You can present on your computer, print out color presentation report or display prints on a poster.
9. **Photograph Series** – Take a photograph and design a series of four to six special effects photos. You can use a morphing software such as “MorphMan” or “Morph Filter” software programs such as “Adobe Gallery Effects”, or “SuperGoo”.
10. **Scrapbook or Poster** – Put together a scrapbook (notebook) or poster on a topic that you have investigated on the Web. The topic can be anything such as dinosaurs, space, favorite TV stars, music, science fiction characters, sports cars, fun vacation spots, etc. Print off the information you found on the Web and display it in a scrapbook (notebook) or on a poster.
11. **Storybook** – Write a story and illustrate it with pictures. Pictures can be original drawings, clip art or photos. Put them together in a storybook format. Storybook should be submitted in a 3-ring binder or presentation report holder. Please include cover for binder.

## **Level 2 – Suggested Exhibit Topics**

Areas of emphasis that may be the focus of your exhibit include:

1. **Operating System Exhibit (DOS, Windows, Vista, Mac OS, etc.)**  
Create an educational poster, display, or action demonstration that illustrates what a computer operating systems is and some of its major functions.
2. **Word Processing Exhibit**  
Design an educational poster, display, or action demonstration that illustrates the advantages of using word processing.
3. **Database Exhibit**  
Create a database on any database software and illustrate the different ways to manipulate data using the software. Database should have data entry screen and report capability. Print examples of database pages. Record sheet should show what software you used. Submit database on CD/DVD or USB Flash Drive.
4. **Spreadsheet Exhibit**  
Make a simple spreadsheet that uses at least 200 cells. Show how you created it and how you plan to use it. Be sure to mention which software program you used and also submit a CD/DVD or USB Flash Drive containing the template you created. Spreadsheet should contain at least 3 formulas for manipulating data in cells.
5. **Educational Exhibit**  
Design an educational exhibit that illustrates at least three educational computer software programs for children or adults (choose one or the other). Show how these programs benefit the user. Prepare a poster or display board that illustrates the importance of computers in the classroom and how education has changed because of computer use.
6. **Computer Games Exhibit**  
Prepare a poster or display board that illustrates how computer games can be beneficial to people. Design an educational exhibit that illustrates how computer games are made, what the market is for them, and how big a business the computer game industry is.
7. **WWW Website**  
Create a homepage that includes at least six (6) HTML menu pages with appropriate navigational links. The homepage should include both text and graphics. Turn in website on CD, DVD, or USB Flash Drive.

8. Any exhibit as described in the Level 2 manual.
  - **T-Shirt** – Use a design software program such as adobe Illustrator, adobe PhotoShop, Print Shop Deluxe or Publisher to create a T-shirt design using a combination of graphics and text. Use clip art, scanned photos, or draw your own pictures. Print your design on a T-shirt.
  - **Animated Presentation** – use a presentation software program such as PowerPoint, Kid Pix Studio, or HyperStudio, design an animated computer presentation on a topic you enjoy.
  - You can animate text and other objects. Turn in presentation on CD, DVD, or USB Flash Drive.
  - **Magazine** – Use a word processing or desktop publishing software (Microsoft Word, Publisher, PageMaker, Publish It, Print Shop Deluxe, Claris Works) to create a magazine. The magazine should be at least eight pages and use a combination of graphics and text. Print magazine in color and put in book/report format.
  - **Photograph Series** – Use an imaging program like Adobe Photoshop, Jasc's Paint Shop Pro or Adobe Gallery Effects to create a series of special effects photos. The series of photos should use at least three of the following effects: textures, changing brightness and contrast, filters, magic wand techniques, composite images, blur, or distort.

### **Level 3 – Suggested Exhibit Topics**

Areas of emphasis that may be the focus of your exhibit include:

1. Programming Exhibits  
Prepare an educational poster or display board illustrating the different programming languages commonly used to create computer software. Also submit a written report detailing the information presented with the display.  
Write a computer program that would be useful to you or someone you know. Completely document the program listing all lines of entry. Write a user's guide explaining how to run the program. Turn in a computer printed user's guide. Turn in the program on a CD, DVD, or USB Flash Drive. The program should be complex enough to warrant being exhibited in Level 3 of this project. Discretion of complexity will be left to the judge. NOTE: It is recommended that you use a high level programming language such as C++, Java2, asp.net, etc.
2. Desktop Publishing Exhibit  
Using desktop publishing software, prepare an educational poster or display board illustrating what desktop publishing is and how it is used. Also submit a written report detailing the information presented with the display. The report should also include details of a visit with someone who uses desktop publishing professionally. The completed exhibit should use both graphics and typewritten words to illustrate what desktop publishing is and how it is used. Prepare an example of a document prepared in a desktop publishing software.
3. Advanced Spreadsheet Use  
Design a spreadsheet template to solve a problem that could help you or someone you know. The template should be created by you and should use at least 500 cells, 10 formulas, and at least one macro. Exhibit the completed template on a CD, DVD, or USB Flash Drive and include a typewritten user's guide that explains what the template does, a listing of all cells, and step-by-step instructions on how to use the template.
4. Integrated Software Package  
Use integrated software (minimum of two software applications – i.e., create a document using a word processor to type the document and import a spreadsheet graph into the word

processing document) to create a document. Exhibit the completed document on a CD, DVD, or USB Flash Drive and include a written report detailing the information presented with the display.

5. Multimedia Software Package

Use a multimedia software package to produce a computer program that incorporates the features of multimedia. Topic can be your choice of an area you enjoy. Exhibit the completed program on a CD, DVD, or USB Flash Drive and prepare an educational display or written report explaining how you developed the program.

6. WWW Website

Develop a WWW homepage that incorporates some advanced programming skills such as using FLASH, Java or JavaScript. Website should include at least ten (10) pages and have drop down menus.

7. Any exhibit as described in the Level 3 manual.

- **Multimedia Computer Presentation** – Use a presentation software program such as Microsoft's Power Point, Appleworks, Hyperstudio, Kid Pix Studio, The Multimedia Workshop, QuickTime VR Authoring Studio, Lotus Freelance Graphics, Macromedia Director Shockwave Studio, Flash and Fireworks, Asymmetric Tool Book, and Final Cut Pro to design an animated computer presentation on a topic you enjoy. It should contain a minimum of 10 screens and include some graphics, sound and either a video clip or animation. Submit Exhibit on CD, DVD, or USB Flash Drive and include a report on the software used and how you put the presentation together.
- **Web Site for an Organization** – Use a web editor such as Microsoft Expression Web, Dreamweaver, asp.net, or using HTML to design a Web site for an organization. It can be your 4-H club, an athletic team, school club, dance group, etc. The site should include a minimum of ten (10) different screens and some hyperlinks. This exhibit will be judged mainly on the content and overall appearance for the organization.
- **Magazine** – Use a word processing or desktop publishing software such as Microsoft Word, Publisher, PageMaker, Publish It, Print Shop Deluxe, Claris Works, etc. to create a magazine. The magazine should be at least 12 pages and use a combination of graphics and text. Print in color.
- **Animated Program** – Use an animation program such as Macromedia Director Shockwave Studio, Flash and Fireworks, Asymmetric Tool Book, or Final Cut Pro to create an animation program that can be used in a presentation or website. Exhibit program on a CD, DVD, or SB Flash Drive.
- **GIS Map** – Use a geographic information system (GIS) program like Google Earth, Arcview or Esc to make a map of your community. You can prepare data or make your own. Try to include all the important features that make your community unique. Exhibit on CD, DVD, or SB Flash Drive.

**STATE FAIR ENTRY:** three exhibits – One for each level.