

COMPUTER/TECHNOLOGY SEVENTH GRADE

VALUES AND ATTITUDES

The student will:

- Demonstrate responsible and ethical behavior that exemplifies Catholic values when using technology, including respect for property, honesty and compassion.
- Demonstrate knowledge of current changes in information technology and the effect those changes have on the workplace and society.
- Feel confident to enhance work through computer applications.
- Recognize and utilize relevant versus irrelevant information.

STRAND A GENERAL KNOWLEDGE

OBJECTIVES

Note: **(M)** with bold text indicates mastery at this level.

Societal issues and ethical behavior related to use of technology

- Describe the effect technological changes have had in a global society.
- Use network terms and concepts related to local and wide area networks.
- Use ethical, safe, and responsible behavior relating to issues and recognize possible consequences of misuse.
- Develop a personal “Code of Honor” for all online communication and Internet use. (M)**
- Follow an Acceptable Use Policy. (M)**
- Recognize and discuss how Copyright Laws protect ownership of intellectual property.
- Discuss consequences of Copyright misuse.
- Demonstrate knowledge of why databases are used to collect, organize, and report information.
- Use database terms, functions, and operations to explain content area findings.
- Identify and discuss guidelines for media to consider in developing multimedia projects as a class.
- Recognize and discuss the importance of responsible use of multimedia resources.
- Demonstrate appropriate use of copyrighted materials in word processing documents used for assignments.
- Demonstrate knowledge of multimedia tools/concepts used by media to entertain, sell, and influence ideas and opinions.
- Demonstrate knowledge that spreadsheets are used to process information in a variety of settings.
- Recognize, discuss, and establish ethical guidelines for use of personal and copyrighted media in multimedia projects and presentations.
- Demonstrate knowledge of responsible, safe, and ethical use of networked digital information.
- Demonstrate knowledge of Copyright and Fair Use Guidelines by explaining selection and use of Internet resources.
- Demonstrate mastery of general computing objectives:
 - Identify and explain the difference between external ports, e.g., USB, parallel, fire-wire.
 - Explain integrated circuits.
 - Identify the operating system and what it does.
- Select and justify the use of appropriate online collaborative tools, e.g., surveys, e-mail, discussion forums, web pages, to develop content area presentations.

STRAND B APPLICATION

OBJECTIVES

Knowledge and skills of technology tools

- Use technology for self instruction.
- Demonstrate knowledge of strategies to identify and solve minor hardware and software problems.
- **Protect data on removable storage media. (M)**
- **Use file management including file, delete, copy, backup, format floppy disk and cross-platform file transfer. (M)**
- Select resources based on appropriateness for task.
- Select and use appropriate technology tools to solve problems.
- Select, evaluate, and use digital resources and information to research Eastern hemisphere: Africa, Asia, and Australia.

Process data, access, evaluate, interpret, communicate information and solve problems

KEYBOARDING

- Use proper keyboarding techniques to improve accuracy, speed and general efficiency.
- **Enter text at 30 words per minute with 90% accuracy. (M)**

WORD PROCESSING/DESKTOP PUBLISHING

- Use word processing as a tool to:
 - a. Insert and customize headers and footers.
 - b. Enter and modify page numbers.
 - c. Create or import spreadsheets into word processing documents.
 - d. Create tables.
- Use WP/DTP features to design, format, layout, and publish assignments.
- Use WP/DTP features, e.g., columns, tables, headers/footers, to format and publish content projects/products.
- Demonstrate knowledge of the advantages/disadvantages of using word processing to develop, publish, and present information.
- Use WP/DTP terms/concepts, e.g., columns, tables, using multiple files and/or applications to create and publish assignments/projects.
- **Import and arrange graphics in document: copy, paste, wrap text around graphic. (M)**
- **SPREADSHEETS**
- Demonstrate Spreadsheet concepts and terms:
 - a. Use columns, tables, headers/footers to format and publish projects.
 - b. Build a formula into a cell.
 - c. Copy and paste values and formulas to selected cells.
 - d. Protect cells from changes.
 - e. Analyze the effects of changes made to the spreadsheet.
 - f. Use the data within a spreadsheet to create charts and graphs.
 - g. Design a spreadsheet.
 - h. Determine what data items to use when designing a spreadsheet.
- **Use spreadsheet and graphing terms to present and explain assignments. (M)**

- **Cite sources of information used in spreadsheets. (M)**
- **Format cell attributes, e.g., columns, rows, justification, styles, number. (M)**
- **Use data from a spreadsheet to create charts and graphs. (M)**
- **Use basic formulas for adding, subtracting, multiplying, dividing, averaging and determining percentages. (M)**
- **Cut, copy and paste formulas, values and functions. (M)**
- **Set decimal place accuracy. (M)**
- **Modify/create spreadsheets and graphs/charts to interpret data. (M)**
- **Create/modify spreadsheets to test simple “what if...” statements to solve problems. (M)**

DATABASE

- Create and use a database to:
 - a. **Define fields and enter information. (M)**
 - b. **Determine the type of information to go into each field when creating a database. (M)**
 - c. **Name, save, and test the database. (M)**
 - d. Retrieve a record from a database using greater than, less than, and range criteria.
 - e. Determine the layout of a record when creating a database.
 - f. Edit the database\create and answer higher order questions using information in a database.
 - g. Use the database to suggest trends.
 - h. Identify potential errors in creating, fitting and using data.
- **Cite sources of information used in databases. (M)**
- Select and use two or more criteria to organize, interpret, and display content data.
- Modify databases to organize, analyze, interpret data, and create reports.
- Evaluate and use database data and reports to solve problems.

- **MULTIMEDIA**
- **Use principles of design: proportion, balance, contrast, rhythm, emphasis, unity. (M)**
- Discuss and model correctly formatted citations for copyrighted materials and adhere to Fair Use Guidelines.
- Plan, design, and develop a multimedia product using data to present content information in the most effective way, citing sources.
- Create/modify and use rubrics to evaluate multimedia presentations for elements.
- Demonstrate knowledge of multimedia by using terms to describe and explain content projects.
- Multimedia presentations:
 - a. Add graphs to a slide.
 - b. Develop and modify color schemes of a slide.
 - c. Add background elements to a slide.
 - d. Create and modify templates.
- **Use basic microphone techniques. (M)**
- **Brainstorm and plan video organization and content: proposal, story-boarding, scripting, production schedule. (M)**
- Internet and Telecommunications

- a. Use the directory buttons in the Web browser.
- b. Organize bookmarks and favorites.
- Evaluate Web pages using evaluation criteria.
- **Use evaluation tools to select Internet resources and information for content and usefulness. (M)**

VOCABULARY

Identify, discuss and use the following basic technology vocabulary/concepts as well as terms/concepts introduced in previous grades. (NC1.19)

Discussion Forum

Intranet

IP address

Private Networks

Threaded discussion