Our Lady of Grace School
Technology Outcomes Grades K-8
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Technology Outcomes for Grades K-2

The early grades are the perfect time to welcome younger students to the world of computing. Kids at this stage are naturally curious, eager to learn, and very quick when it comes to using new technology, such as computers and software.

With this age group, the overriding mission is to welcome children to the world of computing and to teach them some very basic skills in using computer hardware and software. Once they have mastered basic skills and are comfortable with the computer, they will be ready for more ambitious goals in later grades.

Here are the basic skills all children need to master by the end of second grade:

Basic Operation: While many kids may have learned the basics at home, some primary lessons will include turning on the computer, double-clicking an icon, selecting items from a pull-down menu, closing an application, and learning hot to properly power down a computer. Learning to take proper care of computer disks, CDs, and the computer are also important lessons for this age group.

Basic Definitions: It's become cliché to say we live in an "information age," but the fact of the matter is that a new vocabulary has emerged that everyone needs to better understand. Even kids in Kindergarten should know what a "hard drive" does or what a "file" is or how to find the "Enter" key.

By introducing commonly used computer terms at an early age, teaching these children more sophisticated skills later in grade school will become that much easier.

Having Fun: We all understand that a computer is a tool that helps us access information more easily. But that explanation is boring and falls far short of what a computer can be for a child. With the right instruction and a little imagination, computers can be downright fun! At this age, the primary outcome should be a sense of wonder that children feel when they use technology to unlock their own sense of curiosity and creativity.

KINDERGAREN TECHNOLOGY OUTCOMES

Basic Skills:

1. Being careful around computers:
    a. Keep food away from computers (even though your dad has a cup of joe by the keyboard).
    b. Stay away from the wires in back – that's off limits.

c. Take good care of disks and CD's – no that's not a Frisbee, that's my Golf99 program!
d. Don't turn the computer on and off – Mr. Gates doesn't like that.
e. No horseplay around the computer.

2. The basics:
   a. Turning on the computer
   b. Navigating with the mouse
      i. Double-clicking icons
      ii. Launching programs
      iii. Selecting from a pull-down menu
      iv. Using the mouse to turn off the computer
   c. Using Kindergarten-level software
      i. Launching the application
      ii. Using the application
      iii. Printing from the application
      iv. Closing the application

Basic Definitions:

With the use of fun worksheets and hands-on learning, a Kindergartener should be able to identify:

1. Monitor or screen
2. Keyboard
3. Mouse
4. Printer
5. Main Computer
6. CD-Drive

1st & 2nd GRADE TECHNOLOGY OUTCOMES

Basic Skills: Navigating the computer desktop

1. Open the hard drive on the desktop
2. Format a floppy disk
3. Drag files from floppies to the folders and vice versa
4. Open a folder on the desktop
5. Create new folders
6. Name a folder
7. Open a window
8. Close a window
9. Minimize a window
10. Remove disks and CDs from the computer

Basic Keyboarding

1. Locate the letter keys
2. Locate the number keys
3. Turn the number pad on and off
4. Locate the Enter key
5. Locate the Backspace key
6. Locate the Space Bar

Basic Definitions

Understand what the following terms mean:

1. File
2. Folder
3. Desktop
4. Format
5. Enter
6. Double-click
7. Hard drive
8. Floppy disk
9. CD-ROM drive
10. Modem
11. Internet
12. Email

Technology Outcomes for Grade 3 to 5

This document lists recommendations for specific skills for each of the three grade levels. The four main categories of technology learning are: Keyboarding, Word Processing, Spreadsheet and Database.

Keyboarding: It is important that students are able to use the keyboard with both hands. Students who continuously need to look down at the keyboard or can only type with one finger cannot concentrate on the use of software. This will prevent the student from keeping up with the rest of the class and may cause frustration as a result.

Word Processing: This software can be used in conjunction with the keyboard training. Students can apply keyboard skills to a writing project as designated by the teacher.

Spreadsheet: This software introduces the student to the concept of organizing numeric data in a worksheet or table format called a spreadsheet. Within a spreadsheet, data is organized vertically in columns and rows. The intersection where a column and row meet is called a cell. Cells may contain three types of data: labels (text), values (numbers), and formulas. Students can be introduced to these three types of data. Students can create basic formulas, students will

learn the concept of creating their own data. They can create three basic types of charts such as Line Charts, Bar Charts and Pie Charts. They could be introduced to the concept of functions, relative referencing, absolute referencing, and what-if analysis.

Database: This software will introduce the concept of storing data in files. One of the main functions of a computer is to store data. Computers store data in files. Database software allows the student to create a database and to retrieve, manipulate, and update the data that is stored in it. An example of this concept is in a manual system – data is recorded on paper and stored in a folder (file) within a filing cabinet. Other concepts introduced by using database software are file, record, and fields. A file is a collection of related data that is organized in records. Each record contains a collection of related facts called fields. For example, an address file might consist of records containing name and address information. All the data that relates to one name would be considered a record. Each fact, such as street address or phone number, is called a field. The concept of database is important. Computers use databases to store information. Many businesses such as banks, credit card companies, utilities, airlines and others use databases.

3rd GRADE TECHNOLOGY OUTCOMES

Keyboarding:

1. Familiarity with the function of keys on the keyboard.
    a. Identify and understand the function of keys such as the Return Key, Shift Key, Delete Key, Arrow Keys, Escape Key, Ctrl Key, etc.
    b. Identify and understand the function keys such as F1, F2, F3, etc.
    c. Identify and understand how to use the number keys and keypad.
    d. Know how to locate the letter keys.
2. Familiarity with the keys on the keyboard.
    a. Able to demonstrate proper hand positioning on the keyboard.
    b. Able to memorize where keys are located on the keyboard.
    c. Know how to make capital letters.
    d. Know how to type words.
    e. Able to touch type on the keyboard.
3. Use the keyboard efficiently.
    a. Increased keyboarding speed (through practice with Word Processing document).

Word Processing:

1. Familiarity with creating a document.
    a. Know how to open a new document.
    b. Know how to type words in the document.
    c. Know how to type short entries in the document.
    d. Know how to cut, copy and paste.
    e. Know how to delete a word or words.
    f. Know how to save a document.
    g. Know how to print.

h. Know how to close a document.
i. Know how to close the Word Processing application.

4th GRADE TECHNOLOGY OUTCOMES

(Review Word Processing skills introduced in third grade before proceeding).

Word Processing:

1. Update an existing document.
   a. Know how to retrieve an existing (saved) document.
   b. Know hot to edit a document.
2. Format text in the document.
   a. Insert text.
   b. Select fonts.
   c. Select and change font style (Bold, Italic, Underline, etc.)
   d. Create paragraphs.
   e. Know how to tab paragraphs.
   f. Know how to set margins, use hanging indentation and line spacing.
   g. Know how to set page numbers, title pages, headers and footers.
   h. Know how to highlight text.
   i. Create a report using formatting functions.
3. Use of graphics in a document.
   a. Know how to insert graphics.
   b. Know how to resize graphics.
   c. Know how to cut, copy and paste a graphic.

Spreadsheet:

(Review Word Processing skills introduced in Grade3 before proceeding)

1. Create a new spreadsheet.
   a. Know how to open a new spreadsheet.
   b. Know how to create a header for the spreadsheet.
   c. Understand the difference between columns, rows and cells.
   d. Select and change fonts and font sizes.
   e. Set and change styles (Bold, Italic, Underline, etc.).
   f. Know how to save the spreadsheet.
   g. Know how to print the spreadsheet.
   h. Know how to close the spreadsheet.
2. Use of columns, rows and cells.
   a. Know how to enter data in the spreadsheet.
   b. Understand the different types of data that are used in a cell.
   c. Understand the three basic types of charts used from data.

Multimedia:

1. Introduction to the World Wide Web:

a. Know how the World Wide Web works and how to use it.
b. Know the basics of the Web Browsers and the different types.
   Know the basics of Multimedia on the World Wide Web.

2. Create A Slide Presentation.
   a. Know function of slide presentation software.
   a. Know how to create a 3-slide presentation.
   b. Know how to create or change features (sound, graphics, background, color, etc.) of slides.
   c. Know how to present and print final slides.
3. Introduction to the use of a digital camera.
   a. Know how to capture image.
   b. Know how to connect camera to computer.
   c. Know how to open application software.
   d. Know how to find image within application software.
   e. Know how to save image.

5th GRADE TECHNOLOGY OUTCOMES

Spreadsheet:

(Review Word Processing skills introduced in Grade 4 before proceeding)

1. Create a new spreadsheet.
   a. Know how to open a new spreadsheet.
   b. Know how to cut, copy and paste.
   c. Know how to create a header for the spreadsheet.
   d. Understand the difference between columns, rows and cells.
   e. Know how to format columns, rows and cells (change cell height, width, etc.)
   f. Select and change fonts and font sizes.
   g. Set and change styles (Bold, Italic, Underline, etc.).
   h. Know how to save the spreadsheet.
   i. Know how to print the spreadsheet.
   j. Know how to close the spreadsheet.
2. Use of columns, rows and cells.
   a. Know how to enter data in the spreadsheet.
   b. Display and enter formulas.
   c. Understand the different types of data that are used in a cell.
   d. Use three types of data within a cell (Labels, Values and Formulas).
   e. Understand the three basic types of charts used from data.

Database:

1. Create a database.
   a. Open a new database.
   b. Enter data.
   c. Cut, copy and paste.

d. Save a database.
e. Print a database/report.
f. Close the database.

Multimedia:
(Review digital camera use introduced in Grade 4 before proceeding)

1. Introduction to the World Wide Web:
    b. Know how the World Wide Web works and how to use it.
    c. Know the basics of the Web Browsers and the different types.
    Know the basics of Multimedia on the World Wide Web.
2. Create A Slide Presentation.
    a. Know function of slide presentation software.
    b. Know how to create a 7-slide presentation.
    c. Know how to insert clipart images into slide.
    d. Know how to create or change features (sound, graphics, background, color, etc.) of slides.
    e. Know how to present and print final slides.
3. Work with digital camera.
    a. Know how to edit image.
    b. Know how to add text.
    c. Know how to insert image into another application.

Technology Outcomes for Grades 6 – 8

This document lists recommendation for advanced learning in word processing, computer terminology and a basic understanding of the Internet – its use, security issues, and terminology.

Advanced Word Processing: In Grade 3, students are first introduced to word processing software to provide them with an opportunity to practice keyboarding skills learned during that school year. In Grade 4, students focus primarily on learning additional word processing skills that will enable them to update an existing document and format text in the document. During the middle school years, students will review text formatting skills introduced in Grade 4, then move on to learn about additional formatting functions and tables.

Advanced Computer Terminology: Students will review terminology and definitions introduced in K-2. They will then learn additional terminology and definitions that are more commonly used.

Internet: Students will learn about the largest computer network in the world – the Internet. They will learn what the Internet offers, how information transfers, basic connectivity, the World Wide Web, how web files are stored, the types of FTP (File Transfer Protocol) files such as .html and .jpg as well as the most common Internet terminology and definitions. And they will learn about Internet safety.

Advanced Spreadsheet: Spreadsheets can be used for a variety of tasks in the classroom and it's important for middle school students to not only be comfortable using spreadsheets, but understand the many tools that come with today's standard spreadsheet applications. In grades 6 through 8, students should be able to go beyond simple spreadsheet calculations and use advanced spreadsheet functions to better understand and interpret numerical information.

Creating and Using Databases: Because databases are the heart and should of many advanced computer applications, understanding the basics of database structures and operations will provide middle school students with needed skills in a variety of subjects.

6th GRADE TECHNOLOGY OUTCOMES

Review Word Processing skills introduced in Grade 5 before proceeding with the advanced skills listed below.

Advanced Word Processing:

1. Familiarity with Headers and Footers
   a. Know how to create headers and footers.
   b. Know how to insert page numbers.
   c. Know how to add a first page header/footer.
   d. Know how to alternate headers/footers.
2. Familiarity with Section/Page Breaks
   a. Know how to work with a section break.
   b. Know how to insert a new page break.
   c. Know how to format a section of a page.
   d. Know now to modify or remove a section break.
3. Working with Tables
   a. Creating a table.
   b. Navigating a table.
   c. Entering text into a table.
4. Editing a Table
   a. Selecting cells.
   b. Selecting rows.
   c. Selecting columns.
   d. Selecting table text.
   e. Selecting entire table.
   f. Adding rows/columns to a table.
5. Sorting Table Data
   a. Designing a table to be sorted.
   b. Sorting alphabetically, numerically, by date, by multiple columns and individual columns.

Advanced Computer Terminology:

1. Understand the following terms and their definitions:

a. Application Software
b. CPU (Central Processing Unit)
c. Data
d. End-Users
e. GUI (Graphical User Interface)
f. Icon
g. Multimedia
h. OCR (Optical Character Recognition)
i. Operating System
j. RAM (Random Access Memory)
k. Scanner
l. Server
m. Computer Virus

Multimedia Presentation-6th grade

Review of Multimedia Presentation

Know how Multimedia Presentation works and how to use it.

Know the basics of the Multimedia Presentation and the different type of slide presentations.

Know how to scan an image for use in a Multimedia Presentation presentation.

Know the function of a Multimedia Presentation presentation.

Know how to insert sound effects/sound bytes into a slide presentation.

Know how to rotate a graphic.

Know how and when to use different slide views (slide sorter, notes page, slide show)

Know how to animate a graphic.

Know how to insert a text box.

Know how to time the slides in a slide show.

Be able to present the slides in class

6th = 5-8 slides

Collaboratively create and display presentation using multimedia tools and applications.
Integrate original sound, text, and graphics into multimedia presentations produced collaboratively.
Share multimedia presentations with others (peers, parents, community).

7TH & 8TH GRADE TECHNOLOGY OUTCOMES

Internet and World Wide Web skills:

3. Introduction to the Internet:
   a. Know the basic definition of the Internet.
   b. Familiarity with the various functions of the Internet.
   c. Know the basics of how information transfers through the Internet.
   d. Understand the basics of how the Internet is connected.
4. Introduction to the World Wide Web:

a. Know how the World Wide Web works and how to use it.
b. Know the basics of the Web Browsers and the different types.
c. Know the basics of Multimedia on the World Wide Web.

5. Introduction to FTP (File Transfer Protocol):
   a. Know the basic definition of an FTP site.
   b. Know the basics of how FTP files are stored.
   c. Know the common types of FTP files (.html, .jpg).
6. Internet Security:
   a. Know the child safe search engines.
7. Common Internet Terminology:
   a. Bandwidth
   b. Bit
   c. BPS (Bits per second)
   d. Browser
   e. Domain name
   f. Download
   g. FTP (File Transfer Protocol)
   h. GIF (Graphics Interchange Format)
   i. Hyperlink
   j. Hypertext
   k. ISP
   l. IP
   m. JPEG
   n. MPEG
   o. Network
   p. TCP/IP
   q. URL
   r. WWW (World Wide Web)

Advanced Spreadsheets:

1. Interpreting Data with Charts, Graphics
   a. Choosing the correct type of chart (e.g. bar, pie, line).
   b. Creating charts.
   c. Creating chart legends, labels, and colors.
   d. Exporting charts into other applications.
2. Other Advanced Spreadsheet Operations
   a. Know what happens when a formula is copied (relative referencing).
   b. Know what happens when a formula is copied but refers to the same cell location (absolute referencing).
   c. Know how to recalculate data (what-if analysis).
   d. Using the sort command to organize data.
   e. Creating a report with a spreadsheet.
3. Linking Multiple Spreadsheets in a Workbook.
   a. Creating a workbook..
   b. Summing fields in multiple spreadsheets.

c. Exporting results to other applications.

Creating and Using Databases:

1. Use Database Concepts
   a. Identify databases as storage of data in computers.
   b. Know the difference between a file, record and field.
   c. Create fields.
   d. Change field names.
   e. Identify the concept of data relationships.
   f. Create a basic database using the concepts of a file, record and field (examples for this are lists of addresses, club members, friends, etc).

Multimedia-Multimedia Presentation Slide Presentation 7th & 8th grade

Review of Multimedia Presentation

Know how Multimedia Presentation works and how to use it.
Know the basics of the Multimedia Presentation and the different type of slide presentations.
Know how to scan an image for use in a Multimedia Presentation.
Know the function of a Multimedia Presentation presentation.
Know how to insert sound effects/sound bytes into a slide presentation.
Know how to use basic features of Multimedia Presentation (clipart, WordArt, sounds, backgrounds, movie clips)
Know how to rotate a graphic.
Know how and when to use different slide views (slide sorter, notes page, slide show)
Know how to animate a graphic.
(8th only) Know how to create a template.
Know how to insert a text box.
Know how to time the slides in a slide show.
Be able to present the slides in class
7th = 8-10 slides
8th = 10-20 slides

Collaboratively create and display presentation using multimedia tools and applications.
Integrate original sound, text, and graphics into multimedia presentations produced collaboratively.
Share multimedia presentations with others (peers, parents, community).