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Computer Skills Growth Chart

A project of INTEGRATE

http://www.dcet.k12.de.us/instructional/skills/

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Preamble

The ***Computer Skills Growth Chart*** project grew out of a need observed in many districts around the state: many teachers find themselves stymied in trying to integrate technology into lessons in ways that are age appropriate and that work well with the Delaware and National curriculum standards. The project was taken up by INTEGRATE (**IN**structional **TE**chnology **G**uiding **R**igorous **A**cademics and **T**eaching **E**xcellence), a working group of the Delaware Center for Educational Technology, (DCET).

The ***Computer Skills Growth Chart*** is based on the NETS*S (National Educational Technology Standards for Students), the Delaware Content Standards and the Delaware computer skills graduation requirement. The ***Chart*** is an attempt to align the skills addressed in each of those projects with the grade level where they will be utilized in the curriculum.

The ***Chart*** is not a curriculum guide or a scope and sequence nor is it a set of requirements for any student, grade or teacher. Instead, the ***Chart*** is intended as a planning aid and a vehicle to support discussion of technology integration across the curriculum to help students develop 21st century skills.

For brevity's sake, each skill is only mentioned in the grade where we expect that it is reasonable for students to perform the skill independently. Specific teaching activities or additional support may be needed as the students develop the skills. The skills should be utilized as students engage in standards-based activities in all areas of the curriculum.

The Delaware working definition of becoming technologically literate is the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st century. This chart is intended as a guide to the technology skills that contribute to all students becoming technologically literate.

Computer Skills Growth Chart

This chart represents reasonable expectations of student skills which every educator should make an integral part of how the classroom functions to improve student learning. Skills are shown at the grade level in which students should demonstrate proficiency. In the years preceding the target, students may need instruction and support to use the skills in projects or assignments, although many students will be able to perform the skills much before the target years. This chart covers grades K-8, but there are many other areas in which students should grow throughout their K-12 experience in order to enhance their use of technology in learning.

	E-mail & Internet	Network & Computing Skills	Word Processing	Graphics & Presentation	Spreadsheets & Databases
8	Use appropriate search strategies for specific assignments or projects. Evaluate quality of Internet resources.	Basic troubleshooting. Install and remove programs (when permitted).	Use a combination of tools to create publication quality documents.	Capture and utilize digitized video.	Differentiate between records and fields in a database.
7	Select and use appropriate search tools to find information.	Navigate file system (local and network).	Use outline tools for prewriting purposes (expand, collapse).	Save, export and import graphics in a variety of formats.	Use absolute and relative addressing in spreadsheets. Use Boolean techniques to search. (AND, OR)
6	Manage an address book including individuals and groups. Save email and organize into folders. Organize bookmarks.	Manage directories. Use search or find to locate a file or program.	Add headers, footers, and page numbers to documents. Flow text around an image or table. Use grammar check, find, and replace.	Create a self-running presentation. Capture and utilize digitized sound.	Format and print a spreadsheet. (page setup) Replicate formulas across a row or down a column.
5	Send and read attachments. Find information using teacher-selected search engines or directories.	Multitask by switching among open windows. Use keyboard shortcuts (e.g., Ctrl or Open Apple – C)	Format page layout (margins, tabs, orientation, page breaks). Create a table. Use a thesaurus.	Use appropriate animation and transitions to enhance a presentation.	Create simple formulas. Format data. (decimal places, percentage format, etc.) Search a database by specifying the value of particular fields.
4	Send, reply, forward and cc an email independently.	Copy, cut and paste between windows or documents. Make folders.	Edit text (cut, copy, paste, move). Create bulleted or numbered lists.	Import a picture to the computer using a digital camera or scanner. Resize or crop graphics.	Use a spreadsheet to do simple calculations. (sum, average, etc.) Insert and delete rows and columns.
3	Create bookmarks and use them as navigation tools. Enter a URL to reach a site. Search for information using teacher-selected sites.	Launch programs and make selections using a menu. Create, open and close a file. Save and retrieve a file.	Format text (size, font, style, color, alignment). Use spell check and dictionary.	Create a multimedia presentation.	Perform arithmetic calculations in a spreadsheet. (add, subtract, multiply, divide). Sort data. Create graphs and charts from data.
2	Use bookmarks to reach teacher-selected sites.	Log on to the network using a student name according to local policy. Minimize, maximize and restore windows. Print from within a program.	Edit by inserting and deleting. Key in a paragraph with word wrap, capital letters, and punctuation.	Insert and position clipart or a graphic into a document. Reorder slides in an existing presentation.	Locate a spreadsheet cell by its row and column address. Adjust sizes of rows and columns.
1	Use the browser navigation tools (back, forward, refresh, stop) and scroll in windows.	Handle CDs, disks and other media appropriately.	Understand cursor placement. Key in phrases or sentences with proper spacing.	Take pictures using a digital camera.	Enter and delete text or numeric data in a teacher-created spreadsheet.
K	Follow a link.	Use a mouse or touchpad. Start up and shut down a computer properly. Launch a program from an icon.	Key in letters to form words.	Draw or stamp pictures using computer programs.	Locate data in a spreadsheet or chart.

Keyboarding is a foundational skill largely related to motor skills. Based on the child's developmental readiness, it may be appropriate to begin keyboarding training in grades 2-4.

Ethical, human and social issues related to uses of technology should be addressed as appropriate each time they arise in the classroom. At all times it is important to model and practice **Internet safety**.