

Bethel School District

Technology Scope and Sequence

Bethel School District believes technology should play an integral part in the classroom curriculum. To assist teachers in integrating technology into the curriculum, a K-12 Technology Scope and Sequence was created. A committee of teachers created the scope and sequence in order to provide a framework for teachers to follow as they weave the Washington technology standards into the curriculum. This scope and sequence is designed to be used as a tool to help student progress along a continuum of technology skills. Each grade level's technology guide builds from the previous year in order to challenge advancing users. This document can help teachers incorporate technology into the content areas as they provide students with rich learning experiences.

As you are using the Technology Scope and Sequence, an **I** in a particular grade band indicates the grade level where the skill/concept/tool should be introduced. **P** indicates the grade(s) where practice should occur and **M** indicates the anticipated grade for mastery. To assist with using this document, a list of activities has also been created. These activities integrate different aspects of technology and are organized by the appropriate grade level and a variety of technology skills.

As part of No Child Left Behind, all students must demonstrate technology proficiency. The goal of this portion of the (NCLB) Act, known as the Enhancing Education Through Technology Act of 2001 (E2T2), is to assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade, regardless of the student's race, ethnicity, gender, family income, geographic location, or disability. Schools are required to assess and report the progress of their 8th grade students' achievement of technology literacy. A technology literate student is defined by 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. Eighth grade students in the Bethel School District will be surveyed for the first time in Spring 2007 to determine their level of technology proficiency.

**Bethel School District
Technology Scope and Sequence**

Basic Operations and Concepts	K	1	2	3	4	5	6	7	8	9-12
b. Cursor	I	P	P	P	P	P	P	P	P	M
c. Icon	I	P	P	P	P	P	P	P	P	M
d. Scroll bar	I	P	P	P	P	P	P	P	P	M
e. Hour glass/busy/pinwheel	I	P	P	P	P	P	P	P	P	M
f. Word processing	I	P	P	P	P	P	P	P	P	M
g. Internet	I	P	P	P	P	P	P	P	P	M
h. Maximize	I	P	P	P	P	P	P	P	P	M
i. Network	I	P	P	P	P	P	P	P	P	M
j. Folder/directory	I	P	P	P	P	P	P	P	P	M
k. Open file	I	P	P	P	P	P	P	P	P	M
l. Minimize		I	P	P	P	P	P	P	P	M
m. Edit			I	P	P	P	P	P	P	P
n. Hardware			I	P	P	P	P	P	P	M
o. Software			I	P	P	P	P	P	P	M
p. Copyright			I	P	P	P	P	P	P	P
q. Electronic mail (e-mail)				I	P	P	P	P	P	M
r. Software piracy				I	P	P	P	P	P	P
s. License agreement				I	P	P	P	P	P	P
t. Computer manual				I	P	P	P	P	P	M
u. File				I	P	P	P	P	P	P
v. Telecommunication				I	P	P	P	P	P	P
w. Multimedia				I	P	P	P	P	P	P
x. Desktop publishing					I	P	P	P	P	P
y. Database					I	P	P	P	P	P
z. Query					I	P	P	P	P	P
aa. Field					I	P	P	P	P	P
bb. Record					I	P	P	P	P	P
cc. Spreadsheet					I	P	P	P	P	P
dd. Cell					I	P	P	P	P	P
ee. Column					I	P	P	P	P	P
ff. Row					I	P	P	P	P	P
gg. Formula					I	P	P	P	P	P
hh. Boolean Search					I	P	P	P	P	P

**Bethel School District
Technology Scope and Sequence**

Basic Operations and Concepts	K	1	2	3	4	5	6	7	8	9-12
Computer Hardware/Software										
5. Use a variety of media and technology resources for directed and independent learning activities across the curriculum.	I	P	P	P	P	P	P	P	P	P
6. Demonstrate correct procedures for opening, closing, and saving files using menu options and commands in appropriate grade/subject instructional software.	I	P	P	P	P	P	P	M	M	M
7. Identify computer hardware components and peripheral devices.	I	P	P	P	P	P	P	P	P	M
a. Keyboard and mouse	I	P	P	M	M	M	M	M	M	M
b. Monitor/screen	I	P	P	M	M	M	M	M	M	M
c. Printer	I	P	P	M	M	M	M	M	M	M
d. CD-Rom	I	P	P	M	M	M	M	M	M	M
e. Headphones and speakers	I	P	P	M	M	M	M	M	M	M
f. CPU (PC)	I	P	P	P	P	P	P	P	M	M
g. Hard drive	I	P	P	M	M	M	M	M	M	M
h. RAM	I	P	P	M	M	M	M	M	M	M
i. Floppy Drive	I	P	P	M	M	M	M	M	M	M
j. Disk	I	P	P	P	P	P	P	P	P	M
k. File Server	I	P	P	P	M	M	M	M	M	M
l. Digital Camera	I	P	P	P	M	M	M	M	M	M
m. Scanner	I	P	P	P	M	M	M	M	M	M
8. Distinguish between input, output, and storage devices needed to successfully operate computers, VCRs, DVD Players, Projectors, Document Cameras, Digital Still/Digital Video Cameras, Personal Media Players, and other technologies.	I	P	P	M	M	M	M	M	M	M
9. Demonstrate appropriate use of hardware (input/output devices) and media.	I	P	P	P	P	M	M	M	M	M
a. Keyboard and mouse	I	P	P	M	M	M	M	M	M	M
b. CD-Rom	I	P	P	M	M	M	M	M	M	M

**Bethel School District
Technology Scope and Sequence**

Basic Operations and Concepts	K	1	2	3	4	5	6	7	8	9-12
g. Access on-line information for instruction (file server)			I	P	P	P	P	P	P	P
h. Send and receive electronic mail						I	P	P	P	P
i. Know the importance of password security					I	P	P	P	P	M
15. Access the impact of networks on society.								I	P	P
File Management										
16. Use basic computer management skills.	I	P	P	P	P	P	P	P	P	P
a. Access and exit software	I	P	P	P	P	P	P	M	M	M
b. Manage files (save, retrieve)		I	P	P	P	P	P	M	M	M
c. Organize files						I	P	P	P	P
17. Identify advantages of creating an organized file structure.						I	P	P	P	P
18. Arrange an organized file structure.						I	P	P	P	P
19. Modify file structure.						I	P	P	P	P
20. Identify various storage and backup options.						I	P	P	P	P
Basic Trouble Shooting										
21. Describe correct procedures for troubleshooting simple hardware problems that occur in everyday use.					I	P	P	P	P	P
22. Apply strategies for identifying and solving routine hardware and software problems that occur in everyday use.							I	P	P	P
Social, Ethical, and Human Issues	K	1	2	3	4	5	6	7	8	9-12
Information Ownership										
23. Interpret copyright laws and policies with regard to ownership and use of electronic information.	I	P	P	P	P	P	P	P	P	M
a. Respect the privacy of all users through the use of security rules.	I	P	P	P	P	P	P	P	P	M
b. Interpret copyright laws.				I	P	P	P	P	P	M

**Bethel School District
Technology Scope and Sequence**

Social, Ethical, and Human Issues	K	1	2	3	4	5	6	7	8	9-12
c. Interpret acceptable use policies.					I	P	P	P	P	M
d. Obtain permission to use electronic media sources/products						I	P	P	P	M
e. Determine considerations necessary to use electronic media sources/products (crediting sources)						I	P	P	P	M
f. Explain consequences of copyright violations						I	P	P	P	M
Responsible Use										
24. Demonstrate proper care of hardware (computer, peripherals, other equipment) and media.	I	P	P	P	P	P	P	M	M	M
25. Discuss basic issues related to responsible use of technology systems and software and information including personal consequences for inappropriate use.	I	P	P	P	P	P	P	M	M	M
26. Identify and practice legal and ethical behaviors when using information and technology.	I	P	P	P	P	P	P	M	M	M
a. Obey copyright laws	I	P	P	P	P	P	P	M	M	M
b. Use appropriate computer netiquette	I	P	P	P	P	P	P	M	M	M
c. Use Internet appropriately			I	P	P	P	P	M	M	M
d. Obey Acceptable Use Policy					I	P	P	P	P	P
27. Understand and follow the Acceptable Use Policy.	I	P	P	P	P	P	P	P	P	P
28. Explain consequences of the misuses of technology.					I	P	P	P	P	P
29. Evaluate the accuracy, appropriateness, relevance, comprehensiveness, and bias of electronic information.						I	P	P	P	P
30. Cite electronic sources properly.						I	P	P	P	M
31. Identify unethical behaviors regarding use of technology.						I	P	P	P	P
32. Recognize practices that are not in keeping with netiquette.						I	P	P	P	P
Implications of Technology Use										
33. Identify areas in which technology has impacted human lives.					I	P	M	M	M	M

**Bethel School District
Technology Scope and Sequence**

Social, Ethical, and Human Issues	K	1	2	3	4	5	6	7	8	9-12
34. Discuss the advantages and disadvantages associated with common uses of technology in daily life.					I	P	M	M	M	M
35. Describe current changes in information technologies and the effect those changes have on the workplace and society.								I	P	P
36. Analyze ways in which technology has influenced the course of history.								I	P	P
37. Evaluate the effect technology has on the workplace and society.								I	P	P
38. Explain types of tasks for which technology may be used in school, home, and business.								I	P	P
39. Identify factors that affect access to technology.								I	P	P
Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
40. Utilize productivity/multimedia tools and peripherals to support personal productivity, group collaboration, communication, and learning throughout the curriculum.	I	P	P	P	P	P	P	P	P	P
a. Word processing software		I	P	P	P	P	P	P	P	P
b. Telecommunications (e-mail and Internet)	I	R	R	R	R	R	R	R	R	R
c. Presentation/authoring software (PPT)				I	P	P	P	P	P	M
d. Web tools (On-line portfolios, Dream weaver)				I	P	P	P	P	P	P
e. Digital Cameras				I	P	P	P	P	P	P
f. Scanners					I	P	P	P	P	P
g. Spreadsheet software (Excel)						I	P	P	P	P
h. Database software								I	P	P
i. Concept mapping software	I	P	P	P	P	P	P	P	P	P
Word Processing										
41. Explain uses and advantages of word processing.				I	P	P	P	P	M	M

**Bethel School District
Technology Scope and Sequence**

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
- Use thesaurus						I	P	P	P	P
- Use Find and Replace features							I	P	P	P
e. Use desktop publishing techniques			I	P	P	P	P	P	P	P
- Insert graphics			I	P	P	P	P	P	P	P
- Size graphics			I	P	P	P	P	P	P	P
- Insert, modify, delete columns							I	P	P	P
- Create tables							I	P	P	P
f. Use word processor in real world context	I	P	P	P	P	P	P	P	P	P
- Write stories or poems	I	P	P	P	P	P	P	P	P	P
- Type reports				I	P	P	P	P	P	P
- Generate letters				I	P	P	P	P	P	P
- Make brochures						I	P	P	P	P
- Add entries to work cited						I	P	P	P	P
- Create a resume										I
- Create a formal lab report for science										I
Spreadsheets										
43. identify examples of spreadsheets.						I	P	P	P	P
44. Identify uses of spreadsheets.						I	P	P	P	P
45. Explain advantages of using spreadsheets.							I	P	P	P
46. Apply appropriate techniques for producing spreadsheets.							I	P	P	P
a. Apply appropriate techniques for producing spreadsheets							I	P	P	P
- Identify intended use							I	P	P	P
- Specify data organization							I	P	P	P
- Determine columns and rows							I	P	P	P
- Set cell attributes							I	P	P	P
- Create simple calculation formula							I	P	P	P
- Enter and edit data							I	P	P	P

**Bethel School District
Technology Scope and Sequence**

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
b. Retrieve data							I	P	P	P
- Sort data							I	P	P	P
- Create chart(s)							I	P	P	P
c. Print and close spreadsheets							I	P	P	P
- Print all							I	P	P	P
- Print selection							I	P	P	P
- Use Close							I	P	P	P
d. Edit data							I	P	P	P
- Insert column or row							I	P	P	P
- Delete column or row							I	P	P	P
- Use fill down/across							I	P	P	P
- Save updated spreadsheet							I	P	P	P
e. Generate graphs from spreadsheets								I	P	P
- Determine and create appropriate type of graph								I	P	P
- Incorporate graphs into word processing										I
Databases										
47. Identify examples of databases.								I	P	P
48. Identify uses of databases.								I	P	P
49. Explain advantages of using databases.								I	P	P
50. Apply appropriate techniques for producing or manipulating databases.								I	P	P
a. Plan data structure								I	P	P
b. Create new and open existing database								I	P	P
c. Use Save, Save as, and Close								I	P	P
d. Use print options								I	P	P
e. Name fields								I	P	P
f. Set field attributes								I	P	P
g. Enter data								I	P	P
h. Edit data								I	P	P
i. Search data								I	P	P

**Bethel School District
Technology Scope and Sequence**

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
j. Sort data								I	P	P
k. Query data								I	P	P
l. Create and print reports								I	P	P
m. Filter data										I
n. Merge data										I
Multimedia Authoring										
51. Explain uses, advantages, and options of multimedia authoring (Dream weaver, iMovie)							I	P	P	P
52. Use a variety of media and technology resources to produce developmentally appropriate multimedia products across the curriculum.	I	P	P	P	P	P	P	P	P	P
a. Prepare and electronic presentation				I	P	P	P	P	P	P
- Create and edit slides/screens				I	P	P	P	P	P	P
- Add and edit text (font, size, color)				I	P	P	P	P	P	P
- Create and electronic presentation using research in a real world context					I	P	P	P	P	P
- Design a presentation using four or more different forms of media							I	P	P	P
b. Create or change the look of the presentation				I	P	P	P	P	P	P
- Customize the background using color or picture				I	P	P	P	P	P	P
- Arrange objects on the slide/screen				I	P	P	P	P	P	P
- Insert graphics, clip art, digital pictures, paint, and/or original scanned artwork				I	P	P	P	P	P	P
- Use Word Art to enhance titles or to create original art				I	P	P	P	P	P	P
- Cite all graphics; link where appropriate						I	P	P	P	P
- Create a works cited screen or add to bottom of web page						I	P	P	P	P
c. Customize				I	P	P	P	P	P	P

**Bethel School District
Technology Scope and Sequence**

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
- Add slide transitions to slide show				I	P	P	P	P	P	P
- Use sound to enhance presentation						I	P	P	P	P
- Place video in presentation							I	P	P	P
- Select appropriate slide layouts for tables and/or charts							I	P	P	P
- Create a hyperlink to at least one website					I	P	P	P	P	P
- Arrange slides/screens in a logical and appropriate order					I	P	P	P	P	P
- Animate text and/or graphics to add impact					I	P	P	P	P	P
d. Save				I	P	P	P	P	P	P
- Use Save to store a presentation as a new and/or existing file				I	P	P	P	P	P	P
- Use Save As to save the presentation to a new location				I	P	P	P	P	P	P
- Close presentation				I	P	P	P	P	P	P
- Save a presentation as a web page								I	P	P
Concept Mapping										
53. Identify examples of concept map/outlines			I	P	P	P	P	M	M	M
54. Identify uses of concept maps/outlines			I	P	P	P	P	M	M	M
55. Identifies advantages of using concept maps/outlines.					I	P	P	P	P	M
56. Use appropriate techniques for using concept maps/outlines	I	P	P	P	P	P	P	P	P	P
a. Create topic/subtopics	I	P	P	P	P	M	M	M	M	M
b. Linking ideas together		I	P	P	P	M	M	M	M	M
c. Insert graphics (picture, clip art)		I	P	P	P	P	P	M	M	M
d. Insert hyperlinks					I	P	P	P	P	M
e. Insert video						I	P	P	P	M
f. Insert sound						I	P	P	P	M
g. Editing changes					I	P	P	P	P	P
h. Transfer					I	P	P	P	P	P

**Bethel School District
Technology Scope and Sequence**

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
i. Import/Export					I	P	P	P	P	P
<u>Presentations</u>										
57. Demonstrate proficiency in presenting multimedia projects.				I	P	P	P	P	P	P
a. Open an existing multimedia project.				I	P	P	P	P	P	P
b. Practice presentation skills for audience (use of microphone, posture, delivery skills)				I	P	P	P	P	P	P
c. Deliver presentation using projection device (Projector, document camera)			I	P	P	P	P	P	P	P
d. Create notes for final presentation						I	P	P	P	P
58. Demonstrate proficiency in displaying digital information						I	P	P	P	P
59. Use digital display technologies for modeling purposes.	I	P	P	P	P	P	P	P	P	P
<u>Communications Applications</u>										
60. Use telecommunications and other media to collaborate and interact with peers and other audiences, following appropriate laws and regulations.			I	P	P	P	P	P	P	P
61. Explain uses and advantages of telecommunications.							I	P	P	M
62. Explain ways technology is used for transfer of information.						I	P	P	P	P
63. Demonstrate ways technology is used for transfer of information.						I	P	P	P	P
a. E-mail						I	P	P	P	P
b. Internet						I	P	P	P	P
c. Digital projection						I	P	P	P	P
Technology Research Tools	K	1	2	3	4	5	6	7	8	9-12
64. Use the Internet to access information.	I	P	P	P	P	P	P	M	M	M
65. Use appropriate (content-specific) on-line resources to support learning and research.	I	P	P	P	P	P	P	M	M	M

