

Arcola Schools Technology Scope and Sequence

I—Introduce R—Reinforce IU—Independent User

Basic Operations and Concepts	K	1	2	3	4	5	6	7	8	9-12	
General											
1. Demonstrate optimal posture and position at the computer workstation.	I	R	R	R	R	R	R	R	IU	IU	IU
a. Eyes level with the text on the monitor	I	R	R	R	R	R	R	R	IU	IU	IU
b. Shoulders down, arms relaxed	I	R	R	R	R	R	R	R	IU	IU	IU
c. Elbows level with keyboard	I	R	R	R	R	R	R	R	IU	IU	IU
d. Feet and lower back supported	I	R	R	R	R	R	R	R	IU	IU	IU
e. Fingers curved		I	R	R	R	R	R	R	IU	IU	IU
f. Wrists slightly elevated		I	R	R	R	R	R	R	IU	IU	IU
2. Use developmentally appropriate keyboard techniques.	I	R	R	R	R	R	R	R	IU	IU	IU
a. Left hand for left side keys, right hand for right side keys	I	R	R	IU	IU	IU	IU	IU	IU	IU	IU
b. Recognize and locate alphabetic keys		I	R	R	IU	IU	IU	IU	IU	IU	IU
c. Home row finger placement				I	R	R	R	IU	IU	IU	IU
d. Guidelines from typing program					I	R	R	IU	IU	IU	IU
e. Beginning proficiency in technique, posture, and speed							I	IU	IU	IU	IU
3. Demonstrate appropriate use of special keys.	I	R	R	R	R	R	R	IU	IU	IU	IU
a. <i>Shift</i> , arrow, spacebar, <i>Backspace</i> , <i>Enter</i>	I	R	R	R	R	R	R	IU	IU	IU	IU
b. <i>Esc</i> , <i>Tab</i>			I	R	R	R	R	IU	IU	IU	IU
c. <i>Ctrl</i> , <i>Alt</i> , <i>Del</i> , <i>Ins</i>				I	R	R	R	IU	IU	IU	IU
d. <i>Home</i> , <i>End</i> , <i>PgUp</i> , <i>PgDn</i>					I	R	R	IU	IU	IU	IU
Terminology											
4. Utilize developmentally appropriate and accurate terminology to communicate effectively in a technological society.	I	R	R	R	R	R	R	R	R	R	R
a. Login (log-in)	I	R	R	R	R	R	R	R	R	R	IU
b. Cursor	I	R	R	R	R	R	R	R	R	R	IU
c. Icon	I	R	R	R	R	R	R	R	R	R	IU
d. Scroll bar	I	R	R	R	R	R	R	R	R	R	IU
e. Hour glass/busy	I	R	R	R	R	R	R	R	R	R	IU
f. Word processing	I	R	R	R	R	R	R	R	R	R	IU
g. Internet	I	R	R	R	R	R	R	R	R	R	IU
h. Maximize	I	R	R	R	R	R	R	R	R	R	IU
i. Network	I	R	R	R	R	R	R	R	R	R	IU
j. Folder/directory	I	R	R	R	R	R	R	R	R	R	IU
k. Open file	I	R	R	R	R	R	R	R	R	R	IU
l. Minimize		I	R	R	R	R	R	R	R	R	IU

Italicized words indicate special key names or computer commands.

Basic Operations and Concepts	K	1	2	3	4	5	6	7	8	9-12
4. Utilize developmentally appropriate and accurate terminology to communicate effectively in a technological society continued...			I	R	R	R	R	R	R	R
m. Edit			I	R	R	R	R	R	R	IU
n. Hardware			I	R	R	R	R	R	R	IU
o. Software			I	R	R	R	R	R	R	IU
p. Copyright			I	R	R	R	R	R	R	R
q. Electronic mail (e-mail)							I	R	R	IU
r. Software piracy				I	R	R	R	R	R	R
s. License agreement				I	R	R	R	R	R	R
t. Computer manual				I	R	R	R	R	R	IU
u. File				I	R	R	R	R	R	R
v. Telecommunication				I	R	R	R	R	R	R
w. Multimedia				I	R	R	R	R	R	R
x. Desktop publishing						I	R	R	R	R
y. Database							I	R	R	R
z. Query								I	R	R
aa. Field								I	R	R
bb. Record								I	R	R
cc. Spreadsheet							I	R	R	R
dd. Cell								I	R	R
ee. Column								I	R	R
ff. Row								I	R	R
gg. Formula								I	R	R
hh. Boolean search								I	R	R

Italicized words indicate special key names or computer commands.

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	R	R	R	R	R	R	R	R	R
6. Demonstrate correct procedures for opening, closing, and saving files using menu options and commands in appropriate grade/subject instructional software.	I	R	R	R	R	R	R	R	R	IU
7. Identify computer hardware components and peripheral devices.	I	R	R	R	R	R	R	R	R	IU
a. Keyboard and mouse	I	R	R	R	R	R	R	IU	IU	IU
b. Monitor/screen	I	R	R	R	R	R	R	IU	IU	IU
c. Printer	I	R	R	R	R	R	R	IU	IU	IU
d. CD-ROM	I	R	R	R	R	R	R	IU	IU	IU
e. Headphones and speakers	I	R	R	R	R	R	R	IU	IU	IU
f. CPU	I	R	R	R	R	R	R	R	R	IU
g. Hard drive		I	R	R	R	R	R	R	R	IU
h. Floppy drive		I	R	R	R	R	R	R	R	IU
i. Disk		I	R	R	R	R	R	R	R	IU
j. File server		I	R	R	R	R	R	R	R	IU
k. Digital camera			I	R	R	R	R	R	R	IU
l. Scanner			I	R	R	R	R	R	R	IU
m. RAM								I	R	IU
8. Distinguish between input, output, and storage devices needed to successfully operate computers, VCRs, audiotapes, and other technologies.	I	R	R	IU	IU	IU	IU	IU	IU	IU
9. Demonstrate appropriate use of hardware (input/output devices) and media.	I	R	R	R	R	R	IU	IU	IU	IU
a. Keyboard and mouse	I	R	R	R	R	R	IU	IU	IU	IU
b. Computer disks	I	R	R	R	R	R	IU	IU	IU	IU
c. CD-ROM	I	R	R	R	R	R	IU	IU	IU	IU
d. Off/on switches	I	R	R	R	R	R	IU	IU	IU	IU
e. Printer	I	R	R	R	R	R	IU	IU	IU	IU
10. Appraise computer hardware to determine software compatibility.								I	R	R

Italicized words indicate special key names or computer commands.

Basic Operations and Concepts	K	1	2	3	4	5	6	7	8	9-12
Operating Systems										
11. Utilize an operating system efficiently.		I	R	R	R	R	R	R	R	R
a. Start up and shut down—Turn hardware on/off independently		I	R	R	R	R	R	R	R	IU
b. Operating system (Example: Windows) menu items and commands/options				I	R	R	R	R	R	R
c. Start button/start menu							I	R	R	R
d. Taskbar, system tray							I	R	R	R
e. Control/Alt/Delete—Shut down and end tasks								I	R	R
12. Differentiate among operating systems.								I	R	R
13. Identify the functions and advantages of computer productivity software.							I	R	R	IU
a. Word processing							I	R	R	IU
b. Presentation							I	R	R	IU
c. Telecommunications							I	R	R	R
d. Spreadsheet							I	R	R	R
e. Database							I	R	R	R
Networking										
14. Practice responsible use of networked computer.	I	R	R	R	R	R	R	R	R	R
a. Use log in numbers/names	I	R	R	R	R	R	R	R	R	R
b. Use <i>Log Off</i>	I	R	R	R	R	R	R	R	IU	IU
c. Use <i>Shut Down</i>	I	R	R	R	R	R	R	R	IU	IU
d. Use network printers	I	R	R	R	R	R	R	R	R	IU
e. Save files to individual home directories		I	R	R	R	R	R	R	R	R
f. Use multiple storage drives	I	R	R	R	R	R	R	R	R	
g. Access on-line information for instruction			I	R	R	R	R	R	R	R
h. Access information from a directory			I	R	R	R	R	R	R	R
i. Send and receive electronic mail						I	R	R	R	R
j. Set up and change user passwords								I	R	R
k. Know the importance of password security								I	R	R
15. Assess the impact of networks on society.								I	R	R

Italicized words indicate special key names or computer commands.

Basic Operations and Concepts	K	1	2	3	4	5	6	7	8	9-12
File Management										
16. Use basic computer management skills.	I	R	R	R	R	R	R	R	R	R
a. Access and exit software	I	R	R	R	R	R	R	R	R	R
b. Manage files (save, retrieve)		I	R	R	R	R	R	R	R	R
c. Organize files								I	R	R
d. Use disk utilities (format, copy, delete, create, backup, save)								I	R	R
17. Identify advantages of creating an organized file structure.								I	R	R
18. Arrange an organized file structure.								I	R	R
19. Modify file structure.								I	R	R
20. Identify various storage and backup options.								I	R	R
Basic Trouble Shooting										
21. Describe correct procedures for troubleshooting simple hardware and software problems.					I	R	R	R	R	R
22. Apply strategies for identifying and solving routine hardware and software problems that occur in everyday use.							I	R	R	R
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	R	R	R	R	R	R	R	R	R
a. Respect the privacy of all users through the use of security rules	I	R	R	R	R	R	R	R	R	R
b. Interpret copyright laws				I	R	R	R	R	R	R
c. Interpret fair use policies						I	R	R	R	R
d. Obtain permission to use electronic media sources/products							I	R	R	R
e. Determine considerations necessary to use electronic media sources/products							I	R	R	R
f. Explain consequences of copyright violations							I	R	R	R
Responsible Use										
24. Demonstrate proper care of hardware (computer, peripherals, other equipment) and media.	I	R	R	R	R	R	R	R	R	R
25. Discuss basic issues related to responsible use of technology systems and software and information including personal consequences of inappropriate use.	I	R	R	R	R	R	R	R	R	R

Italicized words indicate special key names or computer commands.

Social, Ethical, and Human Issues	K	1	2	3	4	5	6	7	8	9-12
Responsible Use										
26. Identify and practice legal and ethical behaviors when using information and technology.	I	R	R	R	R	R	R	R	R	R
a. Obey copyright laws	I	R	R	R	R	R	R	R	R	R
b. Use appropriate computer netiquette	I	R	R	R	R	R	R	R	R	R
c. Use Internet appropriately			I	R	R	R	R	R	R	R
d. Obey fair use policies						I	R	R	R	R
27. Understand and follow the Arcola CUSD Technology Usage Policy.	I	R	R	R	R	R	R	R	R	R
28. Explain consequences of the misuses of technology.							I	R	R	R
29. Evaluate the accuracy, appropriateness, relevance, comprehensiveness, and bias of electronic information.							I	R	R	R
30. Cite electronic sources properly.							I	R	R	R
31. Identify unethical behaviors regarding use of technology.							I	R	R	R
32. Recognize practices that are not in keeping with netiquette.								I	R	R
Implications of Technology Use										
33. Identify areas in which technology has impacted human lives.					I	R	IU	IU	IU	IU
34. Discuss the advantages and disadvantages associated with common uses of technology in daily life.					I	R	IU	IU	IU	IU
35. Describe current changes in information technologies and the effect those changes have on the workplace and society.							I	R	R	R
36. Analyze ways in which technology has influenced the course of history.							I	R	R	R
37. Evaluate the effect technology has on the workplace and society.								I	R	R
38. Explain types of tasks for which technology may be used in school, home, and business.								I	R	R
39. Identify factors that affect access to technology.								I	R	R

Italicized words indicate special key names or computer commands.

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	R	R	R	R	R	R
a. Word processing software				I	R	R	R	R	R	R
b. Telecommunications			I	R	R	R	R	R	R	
c. Presentation/authoring software				I	R	R	R	R	R	R
d. Web tools				I	R	R	R	R	R	R
e. Digital cameras					I	R	R	R	R	R
f. Scanners							I	R	R	R
g. Spreadsheet software								I	R	R
h. Database software								I	R	R
Word Processing										
41. Explain uses and advantages of word processing.						I	R	R	R	IU
42. Use appropriate techniques for producing word processing documents.	I	R	R	R	R	R	R	R	R	R
a. Create and save a new document		I	R	R	R	R	R	R	R	R
– Identify intended use		I	R	R	R	R	R	R	R	IU
– Use <i>New</i>		I	R	R	R	R	R	R	R	IU
– Use <i>Save</i> and <i>Save As</i>		I	R	R	R	R	R	R	R	R
b. Open, view, print, and close documents	I	R	R	R	R	R	R	R	R	R
– Use <i>Open</i>	I	R	R	R	R	R	R	R	R	IU
– Print entire file	I	R	R	R	R	R	R	R	R	IU
– Use <i>Print Preview</i>		I	R	R	R	R	R	R	R	R
– Print selected parts			I	R	R	R	R	R	R	R
– Print using various sizes of paper							I	R	R	R
– Use <i>Close</i>			I	R	R	R	R	R	R	R
c. Format documents		I	R	R	R	R	R	R	R	R
– Select font style and size		I	R	R	R	R	R	R	R	R
– Space words		I	R	R	R	R	R	R	R	R
– Indent			I	R	R	R	R	R	R	R
– Justify text			I	R	R	R	R	R	R	R
– Set tabs				I	R	R	R	R	R	R
– Space lines					I	R	R	R	R	R
– Change case					I	R	R	R	R	R
– Select page orientation							I	R	R	R
– Set margins							I	R	R	R
– Use headers, footers, and pagination								I	R	R

Italicized words indicate special key names or computer commands.

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
Word Processing										
42. Use appropriate techniques for producing word processing documents continued...	I	R	R	R	R	R	R	R	R	R
d. Edit text			I	R	R	R	R	R	R	R
– Change font style and size			I	R	R	R	R	R	R	R
– Select text				I	R	R	R	R	R	R
– Cut, copy, paste, and delete text				I	R	R	R	R	R	R
– Use spell check				I	R	R	R	R	R	R
– Use thesaurus						I	R	R	R	R
– Use <i>Find</i> and <i>Replace</i> features							I	R	R	R
e. Use desktop publishing techniques			I	R	R	R	R	R	R	R
– Insert graphics			I	R	R	R	R	R	R	R
– Size graphics			I	R	R	R	R	R	R	R
– Insert, modify, delete columns							I	R	R	R
– Create tables								I	R	R
f. Use word processor in real world context	I	R	R	R	R	R	R	R	R	R
– Write stories or poems	I	R	R	R	R	R	R	R	R	R
– Type reports				I	R	R	R	R	R	R
– Generate letters					I	R	R	R	R	R
– Make brochures							I	R	R	R
– Add entries to work cited								I	R	R
– Create a resume										I ^{10th}
– Create a formal lab report for science										I ^{10th}
Spreadsheets										
43. Identify examples of spreadsheets.							I	R	R	R
44. Identify uses of spreadsheets.							I	R	R	R
45. Explain advantages of using spreadsheets.								I	R	R
46. Apply appropriate techniques for producing spreadsheets.								I	R	R
a. Create and save spreadsheets								I	R	R
– Identify intended use								I	R	R
– Specify data organization								I	R	R
– Determine columns and rows								I	R	R
– Set cell attributes								I	R	R
– Create simple calculation formulas								I	R	R
– Enter and edit data								I	R	R
b. Retrieve data								I	R	R
– Sort data								I	R	R
– Create chart(s)								I	R	R

Italicized words indicate special key names or computer commands.

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
Spreadsheets										
46. Apply appropriate techniques for producing spreadsheets continued...								I	R	R
c. Print and close spreadsheets								I	R	R
– Print all								I	R	R
– Print selection								I	R	R
– Use <i>Close</i>								I	R	R
d. Edit data								I	R	R
– Insert column or row								I	R	R
– Delete column or row								I	R	R
– Use fill down/across								I	R	R
– Save updated spreadsheet								I	R	R
e. Generate graphs from spreadsheets								I	R	R
– Determine and create appropriate type of graph								I	R	R
– Incorporate graphs into word processing										I
Databases										
47. Identify examples of databases.							I	R	R	R
48. Identify uses of databases.							I	R	R	R
49. Explain advantages of using databases.								I	R	R
50. Apply appropriate techniques for producing or manipulating databases.								I	R	R
a. Plan data structure								I	R	R
b. Create new and open existing database								I	R	R
c. Use <i>Save</i> , <i>Save as</i> , and <i>Close</i>								I	R	R
d. Use print options								I	R	R
e. Name fields								I	R	R
f. Set field attributes								I	R	R
g. Enter data								I	R	R
h. Edit data								I	R	R
i. Search data								I	R	R
j. Sort data								I	R	R
k. Query data								I	R	R
l. Create and print reports								I	R	R
m. Filter data										I
n. Merge data										I
Multimedia Authoring										
51. Explain uses, advantages, and options of multimedia authoring.								I	R	R

Italicized words indicate special key names or computer commands.

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
Multimedia Authoring										
52. Use a variety of media and technology resources to produce developmentally appropriate multimedia products across the curriculum.	I	R	R	R	R	R	R	R	R	R
a. Prepare an electronic presentation				I	R	R	R	R	R	R
– Create and edit slides/screens				I	R	R	R	R	R	R
– Add and edit text (font, size, color)				I	R	R	R	R	R	R
– Create an electronic presentation using research in a real world context					I	R	R	R	R	R
– Design a presentation using four or more different forms of media									I	R
b. Create or change the look of presentation				I	R	R	R	R	R	R
– Customize the background using color or picture				I	R	R	R	R	R	R
– Arrange objects on the slide/screen				I	R	R	R	R	R	R
– Insert graphics, clip art, digital pictures, paint, and/or original scanned artwork				I	R	R	R	R	R	R
– Use Word Art to enhance titles or to create original art				I	R	R	R	R	R	R
– Cite all graphics – link where appropriate								I	R	R
– Create a works cited screen or add to bottom of web page								I	R	R
c. Customize				I	R	R	R	R	R	R
– Add slide transitions to slide show				I	R	R	R	R	R	R
– Use sound to enhance presentation (Optional)								I	R	R
– Place video in presentation (Optional)								I	R	R
– Create slide layouts for tables and/or charts								I	R	R
– Create a hyper-link to at least one website								I	R	R
– Arrange slides/screens in a logical and appropriate order								I	R	R
– Animate text and/or graphics to add impact (Optional)								I	R	R

Italicized words indicate special key names or computer commands.

Technology Productivity Tools	K	1	2	3	4	5	6	7	8	9-12
Multimedia Authoring										
52. Use a variety of media and technology resources to produce developmentally appropriate multimedia products across the curriculum continued...				I	R	R	R	R	R	R
d. Save				I	R	R	R	R	R	R
– Use <i>Save</i> to store a presentation as a new and/or existing file				I	R	R	R	R	R	R
– Use <i>Save As</i> to save the presentation to a new location				I	R	R	R	R	R	R
– Close presentation				I	R	R	R	R	R	R
– Save a presentation as a web page								I	R	R
Technology Communication Tools	K	1	2	3	4	5	6	7	8	9-12
Presentations										
53. Demonstrate proficiency in presenting multimedia projects.				I	R	R	R	R	R	R
a. Open an existing multimedia project				I	R	R	R	R	R	R
b. Practice presentation skills for audience (use of microphone, posture, delivery skills)				I	R	R	R	R	R	R
c. Deliver presentation using projection device				I	R	R	R	R	R	R
d. Create notes for final presentation								I	R	R
54. Demonstrate proficiency in displaying digital information.								I	R	R
Communications Applications										
55. Use telecommunications and other media to collaborate and interact with peers and other audiences, following appropriate laws and regulations.			I	R	R	R	R	R	R	R
56. Explain uses and advantages of telecommunications.								I	R	IU
57. Explain ways technology is used for transfer of information.								I	R	R
58. Demonstrate ways technology is used for transfer of information.								I	R	R
a. E-mail								I	R	R
b. Internet								I	R	R

Italicized words indicate special key names or computer commands.

Technology Research Tools	K	1	2	3	4	5	6	7	8	9-12
59. Use the Internet to access information.				I	R	R	R	IU	IU	IU
60. Use appropriate (content-specific) on-line resources to support learning and research.	I	R	R	R	R	R	R	R	R	R
a. Utilize information from locally approved websites	I	R	R	R	R	R	R	R	R	R
b. Identify appropriate resources		I	R	R	R	R	R	R	R	R
c. Identify a need for information				I	R	R	R	R	R	R
d. Search electronic card catalogs, AVL, electronic dictionaries, encyclopedias, and almanacs as appropriate				I	R	R	R	R	R	R
e. Search the Internet using developmentally appropriate search engines.				I	R	R	R	R	R	R
f. Define search parameters						I	R	R	R	R
g. Produce research project incorporating information retrieved from at least two different types of sources								I	R	R
61. Apply appropriate techniques for information retrieval.				I	R	R	R	R	R	R
a. Key words				I	R	R	R	R	R	R
b. Boolean operators							I	R	R	R
62. Identify useful information from a search.				I	R	R	R	R	R	R
a. Relate search results to class or individual assignment				I	R	R	R	R	R	R
b. Evaluate for accuracy, appropriateness, and relevance				I	R	R	R	R	R	R
c. Evaluate for comprehensiveness and bias							I	R	R	R
d. Compare information from at least two sources								I	R	R
e. Identify trends in data								I	R	R
63. Take notes and paraphrase from a search.					I	R	R	R	R	R
64. Cite electronic sources appropriately for bibliography.						I	R	R	R	R

Italicized words indicate special key names or computer commands.

Technology Problem-Solving and Decision-Making Tools	K	1	2	3	4	5	6	7	8	9-12
65. Utilize technology for solving problems.	I	R	R	R	R	R	R	R	R	R
66. Discuss the use of technology as a resource for solving a variety of tasks.					I	R	R	IU	IU	IU
67. Select appropriate technology tools and resources to address a variety of tasks and problems.						I	R	R	R	R
68. Use appropriate tools and technology resources to resolve information conflicts by validating information through research and comparison of data.							I	R	R	R
69. Utilize technology for making data-driven decisions.								I	R	R

Italicized words indicate special key names or computer commands.