

## Collinsville Community Unit School District #10 K-12 Technology Scope and Sequence

### 1. Basic Operations and Concepts: Literacy & Application

Students will demonstrate a sound understanding of the nature and operation of technology systems and will become proficient in the use of technology.

1. Basic Operations and Concepts – Literacy & Application														
Benchmark	K	1	2	3	4	5	6	7	8	9	10	11	12	
1.1 Identify main computer components: monitor, keyboard, mouse and CPU (disk drives & on/off switch).	I	D	M	R	R	R	R	R	R	R	R	R	R	
1.2 Identify computer peripherals: printer, headphones, microphone, scanner, digital camera and other projection devices.	I	D	M	R	R	R	R	R	R	R	R	R	R	
1.3 Demonstrate proper use of floppy disks and CD-ROMS.	I	D	D	M	R	R	R	R	R	R	R	R	R	
1.4 Use computer terms: menu, icon, bookshelf, start, close, save, save as, file, scroll bar, and cursor.	I	D	D	D	M	R	R	R	R	R	R	R	R	
1.5 Use basic Network terms: login, password & School Vista.	I	D	D	D	D	M	R	R	R	R	R	R	R	
1.6 Identify School Vista classroom tools (bookshelf, printer, outbox, calculator, clock, sticky notes, chalkboard, “to do” book, private drawer & trashcan).	I	I	I	D	D	D	M	R	R	R	R	R	R	
1.7 Use basic Internet terms: Internet, Net Vista, WWW (World Wide Web), web/home page, links, URL (location/address), and bookmarks.	I	I	I	D	D	D	M	R	R	R	R	R	R	
1.8 Identify and use keyboard functions: alphanumeric & directional arrow keys, Backspace, Tab, Return/Enter, Delete, Shift, Caps Lock, Alt, Control, ESC, and spacebar.	I	I	I	D	D	D	M	R	R	R	R	R	R	
1.9 Basic Procedures														
a. Turn computer on/off following correct startup and shutdown procedures.	I	D	M	R	R	R	R	R	R	R	R	R	R	

**1. Basic Operations and Concepts – Literacy & Application**

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
1.9	Basic Procedures (continued).													
	b. Login with network account name.	I	D	M	R	R	R	R	R	R	R	R	R	R
	c. Enter password for network access.						I	D	M	R	R	R	R	R
	d. Use mouse skills (single, double, right & left clicks, drag, drop).	I	D	D	D	M	R	R	R	R	R	R	R	R
	e. Launch and run various computer applications (Bookshelf > Application).	I	D	D	M	R	R	R	R	R	R	R	R	R
	f. Locate program menu bar and select menu item.	I	D	D	D	D	D	M	R	R	R	R	R	R
	g. Quit various computer applications using the close button ☒	I	D	M	R	R	R	R	R	R	R	R	R	R
	h. Save and retrieve work to a student network directory.		I	D	D	D	D	M	R	R	R	R	R	R
	i. Insert and eject floppy disk to save and retrieve work.						I	D	M	R	R	R	R	R
	j. Resize window using minimize/maximize button.					I	D	D	M	R	R	R	R	R
1.10	Insert and run CD-ROM software.	I	D	D	M	R	R	R	R	R	R	R	R	R
1.11	Navigate/ launch School Vista classroom tools (bookshelf, printer, outbox, calculator, clock, sticky notes, chalkboard, "to do" book, private drawer & trashcan).	I	D	D	D	D	D	D	D	D	N	N	N	N
		A	A	A	A									

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## 2. Social, ethical and human issues

Students will understand the ethical, cultural and societal issues related to technology. They will practice responsible use of technology systems, information and software. These activities will encourage students to develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits and productivity.

2. Social, ethical and human issues.														
Benchmark	K	1	2	3	4	5	6	7	8	9	10	11	12	
2.1 Describe some uses of technology in society (i.e., cash registers, grocery scanners, employee tags, hotel keys, credit cards, etc.).				I	D	D	D	D	D	D	D	D	D	
2.2 Understand and adhere to:														
a. Appropriate copyright laws.				I	D	D	D	D	D	D	D	M	R	R
b. Hardware and software licensing agreements.						I	D	D	D	D	M	R	R	
c. Established district, school, classroom and computer lab policies.	I	D	D	D	D	D	D	D	D	D	M	R	R	
2.3 Respect privacy of staff and student files.						I	D	M	R	R	R	R	R	
2.4 Demonstrate appropriate care and use of all technology systems equipment.	I	D	D	M	R	R	R	R	R	R	R	R	R	
2.5 Use appropriate etiquette for electronic communications.				I	D	D	D	D	D	D	M	R	R	
2.6 Work cooperatively and collaboratively with others when using technology.	I	D	D	D	D	D	D	D	D	M	R	R	R	

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### 3. Technology productivity tools: Word Processing and Visual Arts

Students will use productivity tools to enhance learning, increase productivity and promote creativity.

While using these tools students will collaborate in constructing technology-enhanced models, prepare publications and produce other creative work.

<b>3. Productivity Tools - Word Processing</b> (MS Word, The Ultimate Student Writing Center, Student Writing Center)														
<b>Benchmark</b>		<b>K</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
3.1	Understand and use the following word processing skills:													
a.	Access and open a program.		I	D	D	M	R	R	R	R	R	R	R	R
b.	Open a new document by clicking on the New document icon.		I	D	D	M	R	R	R	R	R	R	R	R
c.	Enter text.	I	D	D	D	D	D	D	D	D	M	R	R	R
d.	Delete text using the delete or backspace keys.		I	D	M	R	R	R	R	R	R	R	R	R
e.	Change the text size.				I	D	M	R	R	R	R	R	R	R
f.	Save, retrieve & close a document.		I	D	D	D	M	R	R	R	R	R	R	R
g.	Select text.				I	D	M	R	R	R	R	R	R	R
h.	Edit the text of a document by changing font and emphasis (bold, italic, & underline).				I	D	M	R	R	R	R	R	R	R
i.	Edit the alignment/justification of a document (left, right, and center).				I	D	M	R	R	R	R	R	R	R
j.	Edit the line spacing of a document.					I	D	M	R	R	R	R	R	R

**3. Productivity Tools - Word Processing** (MS Word, The Ultimate Student Writing Center, Student Writing Center)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
3.1	Understand and use the following word processing skills (continued):													
k.	Manipulate a document's layout by changing margin settings.						I	D	D	D	M	R	R	R
l.	Cut, copy and paste text in a document.					I	D	D	D	D	M	R	R	R
m.	Use the Spelling checker.				I	D	D	D	D	D	M	R	R	R
n.	Use the Grammar checker.						I	D	D	D	M	R	R	R
o.	Use page breaks.										I	D	D	D
p.	Import, position and manipulate relevant graphics into a word processing document.				I	D	D	D	D	D	M	R	R	R
q.	Use the "save as" feature to create copies or new versions of documents.										I	D	D	D
r.	Use the find/replace command.										I	M	R	R
s.	Insert, position and remove tabs.										I	D	D	D
t.	Use the thesaurus.						I	D	D	D	M	R	R	R
u.	Insert and customize headers and footers.										I	M	R	R
v.	Create and insert a table.										I	M	R	R

**3. Productivity Tools - Word Processing** (MS Word, The Ultimate Student Writing Center, Student Writing Center)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12	
3.1	Understand and use the following word processing skills (continued):														
w.	Format a table										I	M	R	R	R
x.	Enter and modify page numbers.										I	M	R	R	R
y.	Import a digital camera image.						I	D	M	R	R	R	R	R	R
z.	Print a document.	I	D	D	D	M	R	R	R	R	R	R	R	R	R
aa.	Use undo and redo features.			I	D	M	R	R	R	R	R	R	R	R	R
ab.	Move or copy text between two or more documents.										I	M	R	R	R
3.2	Understand and use the following visual arts program skills:														
a.	Access and open a program.	I	D	D	D	M	R	R	R	R	R	R	R	R	R
b.	Access and use program tools (pencil, eraser, paintbrush, spray can, paint bucket, line tool, shape tools, text tool).	I	D	D	D	M	R	R	R	R	R	R	R	R	R
c.	Create a graphic.	I	D	D	D	M	R	R	R	R	R	R	R	R	R
d.	Edit color and pattern.	I	D	D	D	M	R	R	R	R	R	R	R	R	R
e.	Add text to a graphic.	I	D	D	D	M	R	R	R	R	R	R	R	R	R

**3. Productivity Tools - Visual Arts** (MS Paint, Kid Pix, Word Draw)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
3.2	Understand and use the following visual arts program skills:													
f.	Select and manipulate a graphic using tools to resize, move, copy, paste, rotate, flip & delete.				I	D	D	D	D	D	M	R	R	R
g.	Use a scanner or digital camera to capture an image.						I	D	D	D	D	D	D	D

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#### 4. Technology communication tools: Electronic Mail, Multimedia and Web-Based Communications

Students will use a variety of telecommunications media and formats to collaborate, publish and interact with peers, experts and others to communicate information and ideas effectively to multiple audiences.

4. Communication Tools - Electronic Mail (Net Vista)													
Benchmark	K	1	2	3	4	5	6	7	8	9	10	11	12
4.1	Access information sent via e-mail.												
a.				I	D	M	R	R	R	R	R	R	R
b.				I	D	M	R	R	R	R	R	R	R
c.										I	M	R	R
d.										I	M	R	R
e.										I	D	D	D
f.										I	D	D	D
g.										I	D	D	D
h.				I	D	M	R	R	R	R	R	R	R
i.						I	D	D	D	M	R	R	R
j.				I	D	M	R	R	R	R	R	R	R

**4. Communication Tools - Electronic Mail (Net Vista)**

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
4.1	Access information sent via e-mail (continued).													
	k. Add sender to <i>Nicknames (Address book)</i> .										I	M	R	R
4.2	Send a new message: (Bookshelf > Internet > Net Vista > Send Mail)													
	a. Compose a new e-mail message.				I	D	M	R	R	R	R	R	R	R
	b. Create and use <i>Signature</i> .										I	D	D	D
	c. Create and use <i>Nicknames</i> .										I	M	R	R
	d. Attach a document to an e-mail message										I	M	R	R
	e. Save a new message using <i>Save As</i> .										I	D	D	D
	f. Print an e-mail message				I	D	M	R	R	R	R	R	R	R
	g. Change e-mail message text font.										I	M	R	R
	h. Cancel an e-mail message.				I	D	M	R	R	R	R	R	R	R
	i. Delete messages from <i>Sent Mail Folder</i> .				I	D	M	R	R	R	R	R	R	R

**4. Communication Tools - Multimedia** (Kid Pix, PowerPoint, HyperStudio)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
4.3	Enter and organize information using a multimedia presentation.													
a.	Access and open a multimedia program.	I	D	D	D	D	M	R	R	R	R	R	R	R
b.	Open/start a new presentation.	I	D	D	D	D	M	R	R	R	R	R	R	R
c.	Add text to a slide or stack.	I	D	D	D	D	M	R	R	R	R	R	R	R
d.	Create an additional slide or stack.				I	D	D	M	R	R	R	R	R	R
e.	Add bulleted and numbered text to a slide or stack.				I	D	D	M	R	R	R	R	R	R
f.	Insert relevant graphics from a variety of sources to a slide or stack (clip art, CD-ROM, disk, or saved, scanned, and digital images).	I	D	D	D	D	D	M	R	R	R	R	R	R
g.	Add student-produced graphs to a slide or stack.					I	D	D	D	D	M	R	R	R
h.	Add video and/or digitized movie clips to a slide or stack.						I	D	D	D	M	R	R	R
i.	Add background elements to a slide or stack.				I	D	M	R	R	R	R	R	R	R
j.	Add transitions to a slide or stack.				I	D	M	R	R	R	R	R	R	R
k.	Add sound effects to a slide or stack.		I	D	D	D	M	R	R	R	R	R	R	R

**4. Communication Tools - Multimedia** (Kid Pix, PowerPoint, HyperStudio)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
4.3	Enter and organize information using a multimedia presentation (continued).													
	i.	Record and insert student-created sounds to a slide or stack.				I	D	M	R	R	R	R	R	R
	m.	Add animation to a slide or stack.			I	D	M	R	R	R	R	R	R	R
	n.	Use various <i>View</i> options: (slide, outline, slide sorter, notes page, and/or slide show).			I	D	D	D	D	D	M	R	R	R
	o.	Reorganize the slides using the slide sorter view.				I	D	M	R	R	R	R	R	R
4.4	Communicate information using a multimedia presentation.													
	a.	Create a presentation consisting of a series of slides/screens.			I	D	D	D	D	D	M	R	R	R
	b.	Run a presentation.			I	D	M	R	R	R	R	R	R	R
	c.	Set a presentation to auto-run.									I	D	D	D
4.5	<b>Access instructor-posted reference material from the district web site</b>													
													I	D

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### 5. Technology research tools: CD-ROM Reference and Internet

Students will use technology to locate, evaluate and collect data information from a variety of sources. These tools will also be used to process the data and report results. Students will evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.

5. Research Tools - CD-ROM Reference (Encyclopedia, Reader's Guide, Atlas, etc.)														
Benchmark	K	1	2	3	4	5	6	7	8	9	10	11	12	
5.1	Locate reference material using electronic media.													
a.	Gather and research information using a reference CD-ROM.										I	D	M	M
b.	Access and open a reference CD-ROM.										I	D	M	M
c.	Browse and navigate the contents of a reference CD-ROM.										I	D	M	M
d.	Identify major headings or groupings for a search.										I	D	M	M
e.	Identify key words, names, and phrases for a search.										I	D	M	M
f.	Perform a single-field word search.										I	D	M	M
g.	Perform a title search.										I	D	M	M
h.	Perform a Boolean word search.										I	D	M	M
i.	Scroll through CD-based articles for major ideas.										I	D	M	M
j.	Print an article from a reference CD.										I	D	M	M

**5. Research Tools - CD-ROM Reference** (Encyclopedia, Reader's Guide, Atlas, etc.)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12	
5.1	Locate reference material using electronic media (continued).														
	k.	Capture information from an article and transfer text to a word processor.										I	D	M	M
5.2	Access and open a Web browser.														
	a.	View a web site accessed by teacher.		I	D	M	R	R	R	R	R	R	R	R	
	b.	Access a web site by clicking on a link.			I	D	M	R	R	R	R	R	R	R	
	c.	Access a web site by entering a URL (Uniform Resource Locator).				I	D	M	R	R	R	R	R	R	
	d.	Access a web site by using a bookmark.					I	D	M	R	R	R	R	R	
	e.	Use the tool bar in the Web browser.				I	D	D	D	D	D	D	M	R	
	f.	Save sites using a bookmark.					I	D	M	R	R	R	R	R	
5.3	Perform information searches.														
	a.	Access and use search engines.						I	D	D	D	D	M	R	
	b.	Use Boolean expressions to refine searches.											I	D	
	c.	Capture information from an article and transfer notes to a notepad or word processor.							I	D	D	D	M	R	

**5. Research Tools - Internet**

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
5.3	Perform information searches.													
d.	Capture and save non-copyrighted graphics.						I	D	M	R	R	R	R	R
e.	Print a page from an Internet site.				I	D	D	M	R	R	R	R	R	R

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## 6. Technology problem-solving and decision-making tools: Spreadsheets, Graphing, Mapping/Webbing, Databases and Programming

Students will use technology resources for the development of strategies for solving problems and making informed decisions in the real world.

6. Problem-solving and Decision-making Tools – Spreadsheets (MS Excel)														
Benchmark	K	1	2	3	4	5	6	7	8	9	10	11	12	
6.1	Understand and use the following spreadsheet skills:													
a.	Access and open a spreadsheet program.						I	M	R	R	R	R	R	R
b.	Recognize the elements of a spreadsheet.						I	D	D	D	M	R	R	R
c.	Move between cells on a spreadsheet.						I	M	R	R	R	R	R	R
d.	Enter text and numbers into a spreadsheet.						I	D	D	D	M	R	R	R
e.	Select a cell or block of cells on a spreadsheet.						I	D	D	D	M	R	R	R
f.	Insert and delete rows and columns.							I	D	D	M	R	R	R
g.	Format a cell or block of cells.						I	D	D	D	M	R	R	R
h.	Save and retrieve spreadsheet files.						I	D	D	D	M	R	R	R
i.	Reorder columnar data by sorting.						I	D	D	D	M	R	R	R
j.	Insert and format column and row headings.						I	D	D	D	M	R	R	R

**6. Problem-solving and Decision-making Tools – Spreadsheets (MS Excel)**

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
6.1	Understand and use the following spreadsheet skills (continued):													
	k. Change column widths.						I	M	R	R	R	R	R	R
	l. Enter a formula into a cell.										I	D	D	D
	m. Copy and paste values and formulas.										I	D	D	D
	n. Protect cells from changes.										I	D	D	D
	o. Enter a function into a cell.										I	D	D	D
	p. Format page setup (margins, orientation & scaling).										I	M	R	R
	q. Add header and footer to spreadsheet.										I	M	R	R
	r. Print spreadsheet.						I	D	D	D	M	R	R	R
6.2	Evaluate the spreadsheet results.										I	D	D	D
6.3	Design an original spreadsheet.										I	D	D	D

**6. Problem-solving and Decision-making Tools – Graphing** (MS Excel, The Graph Club, Kid Pix)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
6.4	Understand and use the following graphing program skills:													
a.	View & contribute to a group-created graph.	I	D	D	D	D	D	D	D	D	D	D	D	D
b.	Understand the type of graph to use based on the type of data to be displayed.				I	D	D	D	D	D	D	D	D	D
c.	Access and open a graphing program.				I	D	M	R	R	R	R	R	R	R
d.	Enter data into the graphing program.				I	D	D	D	D	D	M	R	R	R
e.	Create a picture graph.	I	D	D	D	M	R	R	R	R	R	R	R	R
f.	Create a bar graph.				I	D	D	D	D	D	M	R	R	R
g.	Create a pie graph.				I	D	D	D	D	D	M	R	R	R
h.	Create a line graph.					I	D	D	D	D	M	R	R	R
i.	Add a title to a graph.				I	D	D	D	D	D	M	R	R	R
j.	Add a legend (key) to a graph.				I	D	D	D	D	D	M	R	R	R
k.	Add data labels to a chart.						I	D	D	D	M	R	R	R

**6. Problem-solving and Decision-making Tools – Graphing** (MS Excel, The Graph Club, Kid Pix)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12		
6.4	Understand and use the following graphing program skills (continued):															
	l.	Edit the text of a graph by changing font and emphasis (bold, underline, italics, etc.).										I	M	R	R	R
	m.	Manipulate a graph (enlarge, reduce, and move).										I	M	R	R	R
	n.	Save a graph.				I	D	D	M	R	R	R	R	R	R	R
	o.	Print a graph.				I	D	D	M	R	R	R	R	R	R	R
	p.	Copy and paste a graph into a word processing document.										I	M	R	R	R
	q.	Copy and paste a graph into a multimedia presentation.										I	M	R	R	R
6.5	Understand and use the following concept mapping/webbing skills:															
	a.	View & contribute to a group-created concept map.		I	D	D	D	D	D							
	b.	Access and open a concept-mapping program.				I	D	M	R	R	R	R	R	R	R	R
	c.	Enter text to represent a main concept of the map.				I	D	M	R	R	R	R	R	R	R	R
	d.	Enter data that supports a main concept.				I	D	D	D							

**6. Problem-solving and Decision-making Tools – Mapping/Webbing** (Inspiration)

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
6.5	Understand and use the following concept mapping/webbing skills:													
e.	Change main & supporting concept box shapes.				I	D	D	D						
f.	Convert a concept map into a text outline.				I	D	M	R	R	R	R	R	R	R
g.	Save a concept map.				I	D	M	R	R	R	R	R	R	R
h.	Print a concept map.				I	D	M	R	R	R	R	R	R	R
i.	Create a chronological timeline.								I	M	R	R	R	R
j.	Save a chronological timeline.								I	M	R	R	R	R
k.	Print a chronological timeline.								I	M	R	R	R	R
6.6	Understand and use the following database skills													
a.	Access and open a database program										I	M	R	R
b.	Recognize elements of database										I	M	R	R
c.	Plan a database										I	D	D	D
d.	Create a table										I	D	D	D

**6. Problem-solving and Decision-making Tools – Databases (MS Access)**

Benchmark		K	1	2	3	4	5	6	7	8	9	10	11	12
6.6	Understand and use the following database skills													
d.	Create a table										I	D	D	D
e.	Create a form										I	D	D	D
f.	Create a query										I	D	D	D
g.	Create a report										I	D	D	D
h.	Enter data into a table.										I	M	R	R
i.	Find records										I	M	R	R
j.	Filter a table										I	D	D	D
k.	Use the expression builder										I	D	D	D
l.	Format controls										I	D	D	D
m.	Add graphics to a form										I	M	R	R
n.	Group records in a report										I	D	D	D

