

	Description	K	1	2	3	4	5	6	7	8	9-12
	Goals 1. Provide technical skills necessary, through teacher training (NETS-Technology Operations and Concepts), thus eliminating integration/innovation pockets. 2. Provide a scope and sequence to move students away from only technical skills as teachers design lessons with digital age work and learning. Legend D - Developing, M - Mastering, A - Advanced, E - Elective										
1	<b>Creativity and Innovation--Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.</b>										
	Develop a graphic organizer to support the creation of products and processes.				D	D	M	M	M	A	
	<b><i>Creating Multimedia</i></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>9-12</b>
	Create developmentally appropriate media projects					D	D	M	M	A	
	Incorporate 3 or more components into multimedia projects (e.g., text, graphics, sound, drawing, transitions, buttons, hyperlinks)					D	D	M	M	A	
	Use advanced multimedia techniques (e.g., animations, new button actions, web links, embedding)							D	D	M	M
	<b><i>Publishing to the Web</i></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>9-12</b>
	Create a web page (e.g. Wiki, Moodle, Google, etc.) including text, graphics, links, media, etc.							D	D	M	A
	Use advanced web design tools and techniques (e.g., animations, anchors, tables, frames, viewing source/document/information files)								D	D	M
	Create a dynamic webpage (e.g. flash, HTML 5, Javascripting, CSS, HTML)								D	D	M
	<b><i>Moviemaking and Digital Storytelling</i></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>9-12</b>
	Save to various media (e.g., CD, DVD, mobile devices, Internet)				D	D	M	M	A	A	
	Convert video/audio file to appropriate file format (e.g., mpg to avi; MP4 to MP3)							D	D	M	A

	Identify the parts/features of various video production equipment (e.g., cameras, connections, audio equipment, tripods, lights)							D	D	M	M
	Storyboard video collaboratively with peers					D	D	M	M	A	A
	Use video filmed by others to develop productions					D	D	M	M	A	A
	Film quality video footage						D	D	M	M	A
	Film quality video footage using advanced techniques (e.g., video mixing, mobile video, aligning video to genre, chroma keying)								D	D	M
	Import video into computer								D	M	A
	Import video into computer using advanced techniques (e.g., time code/batch capturing)								D	D	M
	Edit video footage adding effects (e.g., sound, text, transitions)					D	D	M	M	M	A
	Edit video footage adding effects using advanced techniques (e.g., multiple video sources, overlaying video using chroma key, adding animations)							D	D	D	M
	Save as various file types (e.g., mpg, avi, mov)							D	D	M	A
	Create footage from images/still pictures					D	D	M	M	M	A
	Insert sound/music files into movie of still pictures					D	D	M	M	M	A
2	<b>Communication and Collaboration--Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.</b>										
	<b><i>Developing and Delivering Presentations</i></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>9-12</b>
	Format presentation using appropriate text and images (e.g., text consists of main idea, images enhance text, sounds and transitions support text)			D	D	D	M	M	A	A	A
	Use effective oral communication skills (e.g., speak loudly, clearly; use gestures; maintain eye contact; use technology only as reference point)					D	D	D	M	M	A
	Align graphics, text, and sound with content			D	D	D	M	M	M	A	A
	Choose appropriate software for task (e.g., iMovie or presentation, multimedia, or web design software)					D	D	D	M	M	A

Demonstrate advanced formatting skills using appropriate text and images (e.g., text consists of main idea, images enhance text, sounds and transitions support text) to develop a presentation						D	D	D	M	M	A
<b>Communicating via Email</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>9-12</b>	
Access account, retrieve, compose, send, and reply to messages using class accounts					D	D	M	A			
Access account, retrieve, compose, send, and reply to messages using individual accounts						D	D	M	M	A	
Manage email messages (e.g., deleting, saving and organizing)						D	D	M	M	A	
Use advanced email features (e.g., postpone, edit, forward, carbon copy, multiple recipients, attachments)						D	D	M	M	A	
Create an address book/contact list						D	D	M	M	A	
<b>Collaborating via Online Media</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>9-12</b>	
Participate in online discussions (e.g., real-time chats, bulletin boards, webcams)				D	D	D	M	M	M	A	
Participate in video conferencing (e.g., Skype, Polycom, Elluminate)				D	D	D	M	M	M	A	
Exhibit appropriate telecommunication etiquette (e.g., muting, raising their hand, sitting quietly, keep backchanneling chat on topic,)						D	D	M	M	A	
Exhibit appropriate etiquette while collaborating with others (e.g., through the use of blogs, google docs, wikis, etc.)					D	D	M	M	M	M	
<b>3 Research and Information Fluency--Students apply digital tools to gather, evaluate, and use information.</b>											
<b>Navigating the Internet</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>9-12</b>	
Access teacher identified web sites	D	D	D	D	M	M	M	A	A	A	
Maneuver within web-based resources (e.g., navigate, use links, forward, back)	D	D	D	D	M	M	M	A	A	A	
Enter address/URL			D	D	M	M	M	A	A	A	
Bookmark web sites					D	D	M	M	A		
<b>Selecting and Searching Digital Resources</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>9-12</b>	
Use a variety of multimedia resources (e.g., interactive books, educational software, multimedia encyclopedias)		D	D	D	D	M	M	M	A		
Complete online searches by keyword, subject, title, and author		D	D	D	D	M	M	M	A		
Search using basic browser features and strategies				D	D	D	M	M	A		

Complete advanced online search strategies to access information (i.e., Google site search, Boolean logic, +, -, ?, "", *)							D	D	M	M	A
Use advanced search to limit search results to those that are licensed under appropriate Creative Commons license.									D	M	
Select information sources and digital research tools appropriate for selected task							D	D	M	M	A
<b><i>Evaluating Digital Resources</i></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>9-12</b>	
Differentiate between fact and opinion					D	D	D	M	M	A	
Recognize propaganda and the presence of bias and prejudice					D	D	D	M	M	A	
Analyze and evaluate resources in terms of date, author, source, and point of view						D	D	M	M	A	
Recognize the significance of the URL address (e.g., .org, .edu, .com, .net, .gov)						D	D	M	M	A	
Assess web sites for relevance and validity (e.g., purpose of research, validity of site)						D	D	D	M	A	
Recognize the importance of utilizing information licensed under Creative Commons								D	M		
Determine and prioritize appropriate electronic resources						D	D	D	M	A	
<b><i>Extracting and Documenting Research Results</i></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>9-12</b>	
Cite sources using an appropriate format for grade level and/or curriculum area				D	D	D	D	M	M	A	
Identify relevant information within chosen resources			D	D	D	D	M	M	M	A	
Collate and summarize information from chosen resources (i.e., Inspiration, graphic organizers, paraphrasing, note cards, word processing, etc.)			D	D	D	D	D	M	M	A	
<b><i>Collecting and Analyzing Data</i></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>9-12</b>	
Use digital device for data collection individually or in small groups, or whole group (e.g., Proscopes, iSight cameras, iPods, science probes for temperature, light, sound collection)				D	D	D	D	M	M	A	
Interpret and summarize information and data gathered from digital resources						D	D	M	M	A	
Process data and report results of research (e.g., surveys, simulation, report, presentation, model, chart/graph)				D	D	D	M	M	M	A	

4 <b>Critical Thinking, Problem-Solving, and Decision-Making-- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.</b>										
	k	1	2	3	4	5	6	7	8	9-12
Use appropriate digital tools to identify and define authentic problems and significant questions for investigation.					D	D	D	M	M	A
Develop a graphic organizer (e.g., Inspiration, storyboard) to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.					D	D	D	M	M	A
Use digital simulations (e.g. applets, games, demonstrations, etc.) for inquiry-based learning.				D	D	D	D	M	M	A
Determine which technology is most suited to the specific task or problem (e.g., word processor, database, spreadsheet, multimedia tool, graphic organizer)					D	D	D	M	M	A
Plan and manage activities to develop a solution or to complete a project.					D	D	D	M	M	A
Collect and analyze data to identify solutions and/or make informed decisions.				D	D	D	D	M	M	A
5 <b>Digital Citizenship--Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.</b>										
	k	1	2	3	4	5	6	7	8	9-12
Work cooperatively and collaboratively with peers, family members, and others when using technology in the classroom	D	D	D	D	D	D	M	M	M	A
Make ethical and legal decisions when confronting with usage dilemmas while using technology, networks, and digital media. (e.g., logging in using own name and password, respecting other students' works)	D	D	D	D	D	M	M	M	M	A
Understand and follow diocesan and school acceptable use policy and understand the personal and societal consequences of inappropriate use (e.g., access appropriate web sites, report improper use, protect personal information, honor privacy of others, utilize network resources for appropriate educational activities)	D	D	D	D	D	D	D	M	M	A

	Observe copyright laws, intellectual property rights, and responsibilities (e.g., cite sources, obtain permission to use others' works to refrain from plagiarism)			D	D	D	D	D	D	D	M
	Demonstrate appropriate care of all equipment (e.g., computers, camera, scanners, printers, iPads, headsets, etc.)			D	D	D	D	D	D	D	M
	Creating your digital footprint - creating your digital dossier by contributing to online communities, personal learning networks, social media, etc.					D	D	D	D	D	M
	Managing your digital footprint - Recognize online risks, make informed decisions, and take appropriate actions to protect yourself when using and contributing to social and digital media (eg., website navigation, consumer site visits, social networking, YouTube, Facebook, Twitter, texting, sexting)				D	D	D	D	D	D	M
	Developing a personal learning network for lifelong learning.					D	D	D	D	D	M
	Cyber bullying—understand what constitutes cyber bullying and know how to avoid and deal with cyber bullying situations				D	D	D	D	D	D	M
	Demonstrate and advocate for ethical and legal behaviors among peers, family and community.				D	D	D	D	D	D	M
6	<b>Technology Operations &amp; Concepts--Students demonstrate a sound understanding of technology concepts, systems, and operations.</b>	k	1	2	3	4	5	6	7	8	9-12
	<i>Understand and use technology systems</i>	k	1	2	3	4	5	6	7	8	9-12
	Identify simple computer parts using correct terms (e.g., mouse, keyboard, monitor, printer, CD-ROM)	D	M	A							
	Turn the computer on and off	D	M	A							
	Log into and out of the network using username and password	D	M	A							
	Launch new programs	D	M	A							A
	Open a new or saved document	D	M	A							
	Use the window scroll bar to effectively move through the application screen	D	M	A							
	Use point and click and drag techniques (eg. click, left click, right click, double click, triple click, drag) (mouse/touch pad/touch point)	D	M	A							
	Use keyboard shortcuts (eg. print, save, new document, copy/paste, exit, document navigation)		D	D	D	M	M	M	A		

Use proper keyboard position (e.g., hand orientation, space bar, shift, return) to improve words per minute.				D	M	A					
Keyboard at 15 words per minute (wpm) with 93% accuracy					D	D	M	A			
Keyboard at 25 wpm with 93% accuracy									D	M	A
Keyboard at 30-40 wpm with 93% accuracy or 40+ wpm with 90% accuracy											A
<b>Select and use applications effectively and productively</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>9-12</b>	
Save files to proper locations and appropriate format using "save" and "save as"		D	D	D	D	M	M	A			
Print files (eg. choose printer, printer settings, page layout)		D	D	D	D	M	M	A			
Organize and manage files (eg. viewing files, creating folders, file naming conventions, copying vs. moving, file types/extensions, finding/searching)		D	D	D	D	M	M	A			
Navigate between programs and windows (eg. maximize, minimize, restore, move, cascade windows)		D	D	D	D	M	M	A			
<b>Basic Application Skills—Web 2.0; Curriculum Software</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>9-12</b>	
Enter, edit, and delete text (e.g., keyboard, touch pad, mouse)		D	D	D	M	M	M	A			
Navigate toolbars, menus, dialog boxes, status bar		D	D	D	M	M	M	A			
<b>Word Processing</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>9-12</b>	
Apply editing techniques (e.g., spell check, thesaurus, find/change, copy/cut/paste)		D	D	D	M	M	M	A			
Apply formatting techniques (e.g., alignment, paragraph indentions tabs, fonts, styles, spacing, setting tabs, fonts, styles, spacing, columns, tables, section and page breaks, text boxes)		D	D	D	M	M	M	A			
Correctly format research papers (e.g. MLA, APA, etc) including Works Cited page, paragraph spacing, font size, etc.											
Manipulate text layout and design for newsletter, magazine, flyer or presentation layouts		D	D	D	M	M	M	A			
<b>Graphics</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>9-12</b>	
Use painting and drawing tools (e.g., text, line, shapes, eraser, brush, spray can, paint bucket, rotate, resize, gradients)	D	D	D	D	D	M	M	M	A		
Insert copyright free images from a variety of sources into documents/projects (e.g., CD, Internet, camera, scanner. software gallery)		D	D	D	D	M	M	M	A		
Insert clip art from a variety of sources into documents/projects (e.g., CD, Internet, camera, scanner)	D	D	D	D	D	M	M	M	A		

Edit and manipulate graphics (e.g., move, resize, cropping, rotating, changing file size, changing file type)		D	D	D	D	M	M	M	A	
Capture digital images and insert into document (e.g., pictures, scanned images, video footage)				D	D	D	M	M	A	
Superimpose images (e.g., matching size, colors, shading)						D	D	D	M	A
<b>Database</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>9-12</b>
Define database fields			D	D	D	M	M	M	A	
Enter and sort information			D	D	D	D	M	M	M	A
Use advanced database sorting techniques (e.g., <, =, begins with, contains)					D	D	D	M	M	A
Create database report			D	D	D	D	D	M	M	A
Create and format advanced database layouts (e.g., labels, customized reports)							D	D	D	M
Merge database information into other application documents (e.g., word processing, web page)						D	D	D	M	A
<b>Spreadsheet</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>9-12</b>
Enter and sort information in a spreadsheet			D	D	D	M	M	M	A	
Create simple graphs (e.g., bar, pie, circle, line)			D	D	D	D	M	M	A	
Use advanced graph formatting techniques (e.g., step size, 3-dimensional, color, shading, labeling)				D	D	D	M	M	A	
Demonstrate basic spreadsheet functions and formulas (e.g., +, -, *, /, AVERAGE, and SUM)					D	D	D	M	M	A
Demonstrate advanced spreadsheet functions and formulas (e.g., COUNT, IF, LOOKUP, NOW, NPER, NPMT)								D	D	M
Use advanced spreadsheet formatting (e.g., font, alignment, line, shade, color, dimension)					D	D	D	M	M	A
Merge spreadsheet information into other application documents (e.g., word processing, web page)						D	D	D	M	A
<b>Capstone projects</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>9-12</b>
Be able to utilize all of these individual skills to complete projects that require students to gather information, synthesize it into data, prepare reports with graphs and graphics and references, then prepare and present results while communicating with instructors and team members.					D	D	D	M	M	A