

Appendix A

Oswego City School District Technology Benchmarks K-12

K-6 STANDARD 1 : DIGITAL KNOWLEDGE								
Students demonstrate key digital knowledge by using safe, legal, ethical and respectful behavior (1.1), utilizing technology operations (1.2) and systems (1.3).								
Component	Benchmarks	K	1	2	3	4	5	6
1.1 DIGITAL CITIZENSHIP Practice personal safety and display legal, ethical and respectful behavior in the use of information and technology.	1.1.a Demonstrate appropriate computer etiquette (eg. Taking care of the physical device, using appropriate language)	I	G	G	G	G	M	M
	1.1.b Respect the privacy of all users including self (eg. password, personal information)		I	G	G	G	G	M
	1.1.c Practice the safe, responsible sharing of information online; recognize potential online dangers			I	G	G	G	M
	1.1.d Understand and comply with district Acceptable Use Policy (AUP)				I	G	G	G
	1.1.e Use appropriate judgement with Internet (eg. Internet searches, quality material, longevity of information)				I	G	G	G
	1.1.f Demonstrate respect for the digital work of others (eg. Anti-plagiarism, cite sources, and recognize copyright laws)				I	G	G	G
	1.1.g Recognize and report cyberbullying				I	G	G	G
Component	Benchmarks	K	1	2	3	4	5	6
1.2 BASIC OPERATIONS Understand and develop skills to use technology systems as well as hardware and networks to support learning.	1.2.a Identify the main parts of a computer or technology device	I	G	G	M	M	M	M
	1.2.b Login and logout of devices/accounts	I	G	G	M	M	M	M
	1.2.c Use correct vocabulary to describe digital technologies (eg. Check glossary at end of document)	I	G	G	G	G	M	M
	1.2.d Use pointing device (eg. mouse/stylus/finger) to manipulate icons, URLs, scroll bars, clicking buttons, etc.	I	G	G	M	M	M	M
	1.2.e Meet keyboarding proficiency standards for grade level (Please check grade level lists)	I	G	G	G	G	M	M

	1.2.f Recognizing the purpose of shortcuts, programs, and apps and how to open/"launch" and close programs appropriately	I	G	G	G	G	M	M
	1.2.g "Launch" programs		I	G	M	M	M	M
	1.2.h Manipulate graphics (sizing, moving, text wrap, etc.)			I	G	G	G	M
	1.2.i Open, save and print documents from a folder			I	G	G	M	M
	1.2.j Organize files and folders (eg. create, rename, delete, save, share)			I	G	G	G	G
	1.2.k Toggle between 2 programs			I	G	G	M	M
	1.2.l Identify and solve common problems related to digital equipment.				I	G	G	G
	1.2.m Show and hide toolbars					I	G	G

Component	Benchmarks	K	1	2	3	4	5	6
1.3 OPERATE SYSTEMS Select and use productivity tools, common and online applications effectively and constructively to communicate learning.	1.3.a Use teacher-selected websites and software programs to reinforce skills in all subject areas.	I	G	G	G	G	M	M
	1.3.b Type letters, numbers, simple words, and symbols with appropriate spacing.	I	G	G	G	G	M	M
	1.3.c Use enter, tab, shift, caps lock, delete & backspace keys.	I	G	G	G	G	M	M
	1.3.d Use common features of programs such as: Spreadsheet program, Presentation program, Database program/functionality	I	I/G	I/G	I/G	I/G	I/G	I/G
	1.3.e Use and identify spell check features (eg. red or green lines)		I	G	G	G	M	M
	1.3.f Perform basic formatting tasks (eg. font, color, style...)		I	G	G	G	M	M
	1.3.g Select/deselect text to manipulate within document (eg. highlight text to change format)		I	G	G	G	M	M

	1.3.h Insert images: clip art, borders, drawing tool			I	G	G	G	M
	1.3.i Use more advanced formatting functions: bullets, indents, page breaks, margins, columns				I	G	G	M
	1.3.j Cut/copy/paste text or images from document or outside sources				I	G	M	M
	1.3.k Use navigation skills to search for and find information safely and effectively				I	G	G	M
	1.3.l Use the thesaurus tool to enhance word choice					I	G	G

7–12 STANDARD 1: DIGITAL KNOWLEDGE							
Students demonstrate key digital knowledge by using safe, legal, ethical and respectful behavior (1.1), utilizing technology operations (1.2), systems (1.3), and adapting to change (1.4).							
Component	Benchmarks	7	8	9	10	11	12
1.1 DIGITAL CITIZENSHIP Practice personal safety, legal, ethical and respectful behavior in the use of information and technology.	1.1.a Demonstrate appropriate computer etiquette (eg. Taking care of the physical device, using appropriate language)	M	M	M	M	M	M
	1.1.b Protect access to passwords and digital accounts; understanding potential dangers of identity theft, etc.	M	M	M	M	M	M
	1.1.c Practice the safe, responsible sharing of information online; recognize potential online dangers	M	M	M	M	M	M
	1.1.d Comply with district Acceptable Use Policy (AUP).	M	M	M	M	M	M
	1.1.e Understand privacy issues and how data is archived and publicly available.	G	M	M	M	M	M
	1.1.f Practice ethical and appropriate use of all media and comply with copyright laws; understanding potential consequences of plagiarism in the academic and professional world.	G	M	M	M	M	M
	1.1.g Recognize, report and counteract cyberbullying; recognizing examples of cyberbullying	G	G	G	G	G	G
	1.1.h Participate and engage with the global community within expected	G	G	G	G	G	G

	norms of behavior and positive interaction.						
Component	Benchmarks	7	8	9	10	11	12
1.2 BASIC OPERATIONS Understand and develop skills to use technology systems and use hardware and networks to support learning.	1.2.a Apply prior knowledge to operate digital equipment.	G	G	M	M	M	M
	1.2.b Login and logout of devices/accounts and use correct network procedures	M	M	M	M	M	M
	1.2.c Use correct vocabulary to describe digital technologies (eg. Check glossary at end of document)	M	M	M	M	M	M
	1.2.d Use pointing device (eg. mouse/stylus/finger) to manipulate icons, URLs, scroll bars, clicking buttons, etc.	M	M	M	M	M	M
	1.2.e Meet keyboarding proficiency standards for grade level (Please check grade level lists)	M	M	M	M	M	M
	1.2.f Recognizing the purpose of shortcuts, programs, and apps and how to open/"launch" and close programs appropriately	M	M	M	M	M	M
	1.2.g "Launch" programs	M	M	M	M	M	M
	1.2.h Manipulate graphics (sizing, moving, text wrap, etc.)	M	M	M	M	M	M
	1.2.i Open, save and print documents from a folder	M	M	M	M	M	M
	1.2.j Organize files and folders (eg. create, rename, delete, save, share) and utilize cloud and portable storage media with effective file management.	M	M	M	M	M	M
	1.2.k Toggle between 2 programs	M	M	M	M	M	M
	1.2.l Implement adaptive approaches to digital equipment problem solving and troubleshoot common problems related to equipment	G	G	G	G	G	G
	1.2.m Show and hide toolbars	G	G	G	G	G	G
	1.2.n Establish a culture of technological literacy.	I	G	G	G	M	M
Component	Benchmarks	7	8	9	10	11	12
1.3 OPERATE SYSTEMS	1.3.a Use teacher-selected websites and software programs to reinforce skills in all subject areas.	M	M	M	M	M	M

Select and use productivity tools, common and online applications effectively and constructively to communicate learning.	1.3.b Type letters, numbers, simple words, and symbols with appropriate spacing.	M	M	M	M	M	M
	1.3.c Use enter, tab, shift, caps lock, delete & backspace keys.	M	M	M	M	M	M
	1.3.d.1 Use common features of Presentation programs	G	G	M	M	M	M
	1.3.d.2 Use common features of Spreadsheet/Database programs /functionality	I/G	I/G	G	G	G	M
	1.3.d.3 Use software to reinforce skills in all subject areas.	G	G	M	M	M	M
	1.3.e Use and identify spell check features (eg. red or green lines)	M	M	M	M	M	M
	1.3.f Perform basic formatting tasks (eg. font, color, style...)	M	M	M	M	M	M
	1.3.g Select/deselect text to manipulate within document (eg. highlight text to change format)	M	M	M	M	M	M
	1.3.h Insert images: clip art, borders, drawing tool	M	M	M	M	M	M
	1.3.i Use more advanced formatting functions: bullets, indents, page breaks, margins, columns	M	M	M	M	M	M
	1.3.j Cut/copy/paste text or images from document or outside sources	M	M	M	M	M	M
	1.3.k Use navigation skills to search, find, and evaluate information safely and effectively	M	M	M	M	M	M
1.3.l Use the thesaurus tool to enhance word choice	G	G	M	M	M	M	
Component	Benchmarks	7	8	9	10	11	12
COMPONENT 1.4 ADAPT TO CHANGE (TECHNOLOGY FLUENCY) Transfer current knowledge to new and emerging technologies. Formulate and synthesize new knowledge.	1.4 a Apply technology to real-world experiences.	I	G	G	G	G	M
	1.4 b Adjust to changing technologies	I	G	G	G	G	M
	1.4 c Apply technological benchmarks to career aspirations	I	G	G	G	G	G
	1.4 d Personalize technology to meet individual needs, interests and learning styles.	I	G	G	G	G	G

Key:

STANDARD 2: INTEGRATION

Students use technology *within all content areas* to empower learning (2.1), communicate (2.2), collaborate (2.3), investigate (2.4) and innovate (2.5).

Component	Benchmarks	K	1	2	3	4	5	6
2.1 EMPOWER LEARNING Utilize technology to plan, convey, and achieve learning goals.	2.1.a Use personal learning networks to help reach learning goals. (Flipped/blended, PBL, group learning)			I/G	I/G	I/G	I/G	I/G
	2.1.b Reflect on assignments/projects using digital tools. (i.e.> blog/online journal, podcast, etc.)			I/G	I/G	I/G	I/G	I/G
	2.1.c Choosing the best digital resources to demonstrate content knowledge and/or demonstrate competency.			I	G	G	G	G
	2.1.d Set goals and advocate for learning approaches and tools that align with needs, abilities, working styles, and interests.							
Component	Benchmarks	K	1	2	3	4	5	6
2.2 CREATE & COMMUNICATE Use digital media and platforms to communicate and work collaboratively to support individual learning and contribute to the learning of others.	2.2.a Participate in online projects, <i>as a class</i> .	I	G	G	G	G	G	G
	2.2.b Participate in online projects.				I	G	G	G
	2.2.c Work with others using technology tools to convey ideas or illustrate simple concepts.		I	G	G	G	G	G
	2.2.d Interact with others using email or other communication tools.				I	G	G	G
	2.2.e Create, repurpose, and/or remix digital assets to express ideas and/or produce a product for a variety of audiences.					I	G	G
	2.2.f Create and/or maintain a digital portfolio.	I	G	G	G	G	G	G
Component	Benchmarks	K	1	2	3	4	5	6
2.3	2.3.a Learn about many cultures through digital images and stories from around the community, country, and world.	I	G	G	G	G	G	G

GLOBALLY COLLABORATE Develop cultural understanding and global awareness by engaging with learners of many cultures.	2.3.b Participate as a class in global online projects that include a wide variety of perspectives.			I	G	G	G	G
	2.3.c Share relevant information.				I	G	G	G
	2.3.d Give and receive constructive feedback.			I	G	G	G	G
Component	Benchmarks	K	1	2	3	4	5	6
2.4 CONSTRUCT KNOWLEDGE, INVESTIGATE, & THINK CRITICALLY Use models and simulations to explore systems, identify trends and forecast possibilities. Research, manage and evaluate information and solve authentic problems using digital tools and resources.	2.4.a Build background knowledge and generate questions by using digital content and/or multimedia.				I	G	G	G
	2.4.b Record questions using digital tools with assistance.			I	G	G	G	G
	2.4.c Use digital tools to help plan projects.				I	G	G	G
	2.4.d Gather information using selected digital resources.		I	G	G	G	G	G
	2.4.e Organize information using digital tools, such as tables, digital templates or online tools.			I	G	G	G	G
	2.4.f Record and cite sources used in research.				I	I/G	G	G
	2.4.g Analyze and evaluate results, discuss and identify the solution(s).				I	G	G	G
	2.4.h Identify, evaluate and select information for decision making.				I	G	G	G
	2.4.i Create and present solutions, learning, and results using digital/multimedia tools.				I	G	G	G
	2.4.j Begin to recognize potential bias in websites.				I	G	G	G
	2.4.k Understand the basic ideas involved in copyrighted materials.				I	G	G	G
2.4.l Explore and integrate alternative concepts and feedback from multiple audiences.								I

Component	Benchmarks	K	1	2	3	4	5	6
2.5 INNOVATE Analyze, synthesize and ethically use information to develop a solution, make informed decisions and report results. Use multiple processes and diverse perspectives to explore alternative solutions.	2.5.a Organize ideas and design and produce multimedia projects.				I	G	G	G
	2.5.b Practice skills, explore new concepts and recognize and describe patterns using interactive resources and educational games, test and refine designs/concepts.			I	G	G	G	G
	2.5.c Collect and graph data to predict outcomes and interpret patterns.						I	G

STANDARD 2: INTEGRATION

Students use technology *within all content areas* to empower learning (2.1), communicate (2.2), collaborate (2.3), investigate (2.4) and innovate (2.5).

Component	Benchmarks	7	8	9	10	11	12
2.1 EMPOWER LEARNING Utilize technology to plan, convey, and achieve learning goals.	2.1.a Use personal learning networks to help reach learning goals. (Flipped/blended, PBL, group learning)	I/G	I/G	G	G	M	M
	2.1.b Reflect on assignments/projects using digital tools. (i.e.> blog/online journal, podcast, etc.)	I/G	I/G	I/G	G	G	M
	2.1.c Choosing the best digital resources to demonstrate content knowledge and/or demonstrate competency.	G	G	G	M	M	M
	2.1.d Set goals and advocate for learning approaches and tools that align with needs, abilities, working styles, and interests.		I/G	I/G	I/G	G	M
Component	Benchmarks	7	8	9	10	11	12
2.2 CREATE & COMMUNICATE Use digital media and platforms to communicate	2.2.a Participate in online projects, <i>as a class</i> .	G	G	G	G	M	M
	2.2.b Participate in online projects, <i>as an individual</i> .	G	G	G	G	M	M
	2.2.c Work with others using technology tools to convey ideas or illustrate simple concepts.	G	M	M	M	M	M

and work collaboratively to support individual learning and contribute to the learning of others.	2.2.d Interact with others using email or other communication tools.	G	M	M	M	M	M
	2.2.e Create, repurpose, and/or remix digital assets to express ideas and/or produce a product for a variety of audiences.	G	G	G	M	M	M
	2.2.f Create and/or maintain a digital portfolio.	G	G	G	G	M	M
Component	Benchmarks	7	8	9	10	11	12
2.3 GLOBALLY COLLABORATE Develop cultural understanding and global awareness by engaging with learners of many cultures.	2.3.a Learn about many cultures through digital images and stories from around the community, country, and world.	G	G	G	G	G	G/M
	2.3.b Participate as a class in global online projects that include a wide variety of perspectives.	G	G	G	G	G	G/M
	2.3.c Share relevant information.	G	G	G	G	G	G
	2.3.d.1 Give constructive feedback.	G	G	G	G	G	G
	2.3.d.2 Receive constructive feedback.	G	G	G	G	G	G
	Component	Benchmarks	7	8	9	10	11
2.4 CONSTRUCT KNOWLEDGE, INVESTIGATE, & THINK CRITICALLY Use models and simulations to explore systems, identify trends and forecast possibilities. Research, manage and evaluate information and solve authentic problems	2.4.a Build background knowledge and generate questions by using digital content and/or multimedia.	G	G	G	M	M	M
	2.4.b Record questions using digital tools with assistance.	G	G	M	M	M	M
	2.4.c Use digital tools to help plan projects.	G	G	G/M	M	M	M
	2.4.d Gather information using selected digital resources.	G	G	M	M	M	M
	2.4.e Organize information using digital tools, such as tables, digital templates or online tools.	G	G	M	M	M	M
	2.4.f Record and cite sources used in research.	G	G	G	M	M	M

using digital tools and resources.	2.4.g Analyze and evaluate results, discuss and identify the solution(s).	G	G	G	G	G/M	M
	2.4.h Identify, evaluate and select information for decision making.	G	G	G	M	M	M
	2.4.i Create and present solutions, learning, and results using digital/multimedia tools.	G	G	G	M	M	M
	2.4.j Recognize potential bias in websites.	G	G	G	G	G	M
	2.4.k Understand the basic ideas involved in copyrighted materials.	G	G	G	M	M	M
	2.4.l Explore and integrate alternative concepts and feedback from multiple audiences.	I/G	I/G	G	G	G	G
	2.4.m Share different ways to solve problems. Compare results to evaluate the best solution. Compare different ways to solve problems.		I	G	G	G	G
Component	Benchmarks	7	8	9	10	11	12
2.5 INNOVATE Analyze, synthesize and ethically use information to develop a solution, make informed decisions and report results. Use multiple processes and diverse perspectives to explore alternative solutions.	2.5.a Organize ideas and design and produce multimedia projects.	G	G	G	M	M	M
	2.5.b Practice skills, explore new concepts and recognize and describe patterns using interactive resources and educational games, test and refine designs/concepts.	G	G	G	M	M	M
	2.5.c Collect and graph data to predict outcomes and interpret patterns.	G	G	G	G	G	G/M

Key:

■: **Not Applicable...**The benchmark does not pertain to the grade level.

I: Introduced...The benchmark is taught using explicit direct instruction (EDI) techniques including: modeling as well as guided and independent practice.

G: Guided...The prior grade level(s) provided direct instruction. Students will be provided guided practice, support, and re-teaching, as needed.

M: Mastered...Students demonstrate knowledge of the benchmark independently, in order to complete tasks or projects.