Technology Plan

2018-2021

Prepared by the Oswego City School District Technology Committee

Revised 9/7/2018

District Mission:

OCSD is student centered.

OCSD Mission in Action Statements:

We will use an evidence-based approach.

We will be a collaborative community.

We will be a community that accepts and appreciates diversity.

We will consider all points of view to make compassionate decisions.

We will communicate with all relevant stakeholders.

We will treat each other with respect.

District Vision:

Fully Prepared and Life Ready!

Technology Vision Statement:

Technology provides new frontiers for teaching and learning that assist our schools to meet the academic, social, and emotional development of all our students. Our view on technology is that it provides students an avenue to create and express themselves as individual learners. Our aspiration for technology within the Oswego City School District is for all members to recognize the benefit of technology through appropriate, responsible, and productive use.

Attainment Goals:

1. By 2021 all students will have regular use of, and equitable access to, instructional technology.

2. Oswego City School District staff are appropriately trained to increase technology proficiency.

3. Oswego City School District classroom teachers effectively plan and integrate technology into daily lessons.

Planning Process:

The OCSD Technology Committee consisted of stakeholders from various grade levels, contents and backgrounds. Our previous technology plan included the creation of district grade level technology benchmarks. A key factor in goal creation for the 2018-2021 plan was to determine how to best implement the created benchmarks. The committee met monthly, on a regular basis throughout the school year. Once the NYS Instructional Technology Framework and Guidance documentation was made available, our plans were developed to align with our district goal to educate students to be *Fully Prepared and Life Ready*! During the duration of this technology plan, district safety committees will be regularly meeting to discuss safety procedures and ongoing improvements as it relates to safety related technology (security cameras, remote access etc.). It is the intention of the Oswego City School District to utilize NYS Smart School Bond Act funds for safety upgrades during the duration of this technology plan for security upgrades.

Stakeholders

Oswego City School District considers involvement of district support staff, administrators, community, teachers, parents, and students as an essential component in the education of all students. The District Technology Committee involved a variety of stakeholders throughout the process. Our gratitude is extended to the technology committee, Board of Education and to our central office administration for their dedication to our district, community and students.

Board of Education
Aimee Callen……………………………………………………………….… Board President
James Bell………………………………………………………………….…Board Vice President
Lynda Sereno…………………………………………………………….… Board Member
Thomas Decastro …………………………………………………….… Board Member
Brian Chetney…………………………………………………………….… Board Member
Brandon Lagoe……………………………………………………..….. Board Member
Sam Tripp………………………………………………………………..… Board Member

Central Office Administration
Dr. Dean Goewey………………………………………………..……..…Superintendent
Dr. Heidi Sweeney….………………………………………….………..…Executive Director of Secondary
                                              Education & Personnel
Carrie Plasse……………………………………………………………….. Executive Director of
Elementary
                                              Education & Curriculum
Nancy Squairs…………………………………………………………….. Executive Director of Business
and
                                              Finance
Lisa-Marie Carter…………………………………………………..…. Director of Special Education

Jamie Sykut... Director of Instructional Technology
Dr. Robert Duffy...…Director of Student Services

<u>Technology Committee</u>
Mary Alice Brennan..Library Media Specialist
Thomas Caswell... Classroom Teacher
Gretchen Coakley .... Classroom Teacher
Nick Little...Classroom Teacher
Kelly Moxley...Classroom Teacher
Peri Nelson.. Instructional Technology Support
Carrie Plasse... Executive Director of Elementary
<div align="center">Education & Curriculum</div>
Michelle Peterson.. Classroom Teacher
Tammy Reynolds.. Library Media Specialist
Dan Rupert.. Instructional Technology Support
Nancy Squairs.. Executive Director of Business and
<div align="center">Finance</div>
Dr. Heidi Sweeney...…Executive Director of Secondary
<div align="center">Education & Personnel</div>
Jamie Sykut... Director of Instructional Technology
Thomas Wiegand.. Classroom Teacher

Professional Development Plan

The technology based professional development is aligned to our New York State Professional Development Plan (PDP) for 2016-2018. The district PDP plan was revised and our 2018-2021 plan will contain the following information related to technology based professional development.

> **Objective #1:** Train and support staff with the implementation of technology benchmarks for all students K-12

Professional Development	Activity(ies) to accomplish objectives	Coordinator Responsible	Timeframe (When/how long)	Evaluation standards Performance Measure/ Data Source

Benchmarks for K-6	All technology based professional development highlights district benchmarks	Director of Instructional Technology	2018-2021	Staff will become familiar with the benchmarks
Aligning work to the benchmarks K-12	Showing staff how to incorporate the technology benchmarks into projects/resources being used	Director of Instructional Technology	2018-2021	A continually growing list of resources for technology aligned to the CCLS, all tech courses will be embedding benchmarks into all projects and courses.

Objective #2: Train instructional staff in the application of instructional technologies (ELMOs, projection systems, interactive whiteboards, iPads, Chromebooks, interactive slates, Google Apps, etc.)

Professional Development	Activity(ies) to accomplish objectives	Coordinator Responsible	Timeframe (When/how long)	Evaluation standards Performance Measure/ Data Source
Google courses · Tour Builder · Classroom · Google Docs · Google Sheets · Google Slides · Google Classroom	In-service offering to integrate Google Apps for Education into daily instruction	Director of Instructional Technology	2018-2021	Increase in teacher usage, by survey and teacher requests for access to Google Classroom.
Presentation · Programs that help students to present topics	In-service offerings	Director of Instructional Technology	2019-2020	Increase in teacher usage, by survey
Digital Portfolio · Seesaw Learning	In-service offerings	Director of Instructional Technology	2018-2021	Increase in teacher usage, by survey

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WeVideo online Service	In-service offerings	Director of Instructional Technology	2018-2021	Increase in teacher usage, by account admin/ requests for accounts
Smart Notebook, Smart Amp resource	How to effectively use Smart Amp to collect student data for RTI and instructional goals	Director of Instructional Technology	2018-2019	Increase in teacher usage, by survey
Device Basics Professional Development	All K-6 staff will be trained in basic care, use, of deployed devices	Director of Instructional Technology	2018-2021	Attendance logs for verification. All K-6 staff would be trained in benchmarks as well.
IPads for Instruction, K-2	In-service offerings, goal is to have devices effectively used during center work in classrooms.	Director of Instructional Technology	2018-2021	Classroom visits, check and connects
Chromebooks for Instruction, 3-6 and separate offering for 7-12	In-service offerings	Director of Instructional Technology	2018-2021	Classroom visits, check and connects
Online Assessment programs	In-service offerings	Director of Instructional Technology	2020-2021	teacher usage, and survey
Copyright Understanding	In-service offerings	Director of Instructional Technology	2018-2021	Increase in teacher usage, by survey
Keyboarding and typing skills	Mandated for all 3-6 teachers with devices in classroom	Exec. Director of Elementary Education	2018-2021	Walkthrough by administrator(s), discussion with library media specialists

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Accountability of Technology Goals

To assist the technology committee and district administration in meeting proposed goals, the Director of Instructional Technology will work to collect and share data in relation to completing the goals.

Goal 1:

By 2021 all students will have regular use of, and equitable access to, instructional technology.

The availability of devices in a classroom setting is currently limited to approximately 4, or less, student devices in most classrooms. Many classrooms have equipment that is unreliable to use on a regular basis, it is also limited in availability. Data will be compiled to regarding the availability of devices to students, grades 3-8 (A previous technology integration project deployed eight iPads into K-2 classrooms). A list of available educational programs (software or online resources), projects and suggested activities aligned to district technology benchmarks will also be generated. The suggested activities will be digitally shared with staff to enrich learning experiences throughout OCSD. With the recommendation of technology committee, a cost analysis will be done to determine the range on when, how and what additional devices can be deployed.

Goal 2:

Oswego City School District staff are appropriately trained to increase technology proficiency.

A professional development plan for technology will be completed, attendance data will be compiled. The data will allow itinerant technology staff to reach out to district staff that have not attended and may benefit from assistance. In addition to ongoing review, all technology based professional development will introduce, discuss and model with district technology benchmarks and prepare digital materials that can be shared for self-paced learning and reference.

Goal 3:

Oswego City School District classroom teachers effectively plan and integrate technology into daily lessons.

Our district technology committee has previously created technology benchmarks (based off state expectations, and ISTE standards- Appendix A), keyed by grade level and skill. These are not mandated benchmarks and currently are only suggested to review if desired. The technology committee will seek various ways to incorporate into professional development and teaching exercises. Along with being used during professional development, the database of activities with aligned benchmarks will be distributed to teachers as turn-key assistance with integrating technology.

Action Plan

Goal 1:

By 2021 all students will have regular use of, and equitable access to, instructional technology (including necessary infrastructure upgrades, wireless access points etc. to accommodate additional instructional technology).

NYSED Goal:

Increase equitable access to high-quality digital resources and standards-based, technology-rich learning experiences

Target Population:

All students

Goal 1 Action Steps:

Action Step dropdown	Description	Responsible Stakeholder	If "other" from previous column list	Anticipated month of completion	Anticipated year of completion	Anticipated Cost
Research	Determine available student devices grades 3-8	Director Instructional Tech	N/A	September	2018	N/A
Infrastructure Upgrades	Upgrade infrastructure to meet demand of new devices	Director of Instructional Tech	N/A	June	2021	$165,000
Planning	Recommended device deployment plan	Director of Instructional Tech	N/A	June	2019	$360,000
Budget	Available annual budget	Business Official	N/A	May	2018	N/A
Curriculum	Available resource list	Instructional Technology Specialist	N/A	August	2018	N/A
Curriculum	Benchmark aligned projects/		N/A	October	2019	N/A

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		resources					

Goal 2:

Oswego City School District staff are appropriately trained to increase technology proficiency.

NYSED Goal:

Develop a strategic vision and goals to support student achievement and engagement through the seamless integration of technology into teaching and learning

Target Population:

All students

Goal 2 Action Steps:

Action Step dropdown	Description	Responsible Stakeholder	If "other" from previous column list	Anticipated month of completion	Anticipated year of completion	Anticipated Cost
Research	Appropriate times/methods of technology integration	Director Instructional tech	N/A	June	2018	N/A
Planning	Planning for technology professional development courses	Director of Instructional Tech	N/A	August	2018	N/A
Curriculum	Create technology integration outlines	Curriculum and Instructional Leader	N/A	June	2019	N/A
Implementation	Technology based professional development	Director of Instructional Tech	N/A	June	2021	$9,700 annually
Implementation	Distribute tech integration outline and set expectation	Curriculum and Instructional Leader	N/A	June	2019	N/A

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Goal 3:

Oswego City School District classroom teachers effectively plan and integrate technology into daily lessons.

NYSED Goal:

Provide Access to relevant and rigorous professional development to ensure educators and leaders are proficient in the integration of learning technologies.

Target Population:

All students

Goal 3 Action Steps:

Action Step dropdown	Description	Responsible Stakeholder	If "other" from previous column list	Anticipated month of completion	Anticipated year of completion	Anticipated Cost
Planning	Utilize and distribute Goal 1 and 2 information to administration	Director Instructional tech	N/A	July	2019	N/A
Professional Development	District mandated PD for classroom devices k-6	Director of Instructional Tech	N/A	October	2019	$5,000
Professional Development	District PD for classroom devices 7-12	Director of Instructional Tech	N/A	August	2021	$5,000
Professional Development	How to best use student devices based on recommended model in goal 2	Curriculum and Instructional Leader	N/A	October	2019	$8,000
Professional Development	Effective Technology Integration Strategies	Curriculum and Instructional Leader	N/A	June	2021	$16,000

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NYSED Initiatives Alignment

1. The district use of instructional technology support will serve as a part of the comprehensive plan and be a sustained effort to support rigorous academic standards that improve performance for students. To ensure classroom technology use complies with district expectations, ongoing professional development will be planned, but also flexible to react to instructional needs of teachers. Classroom technology use must incorporate formative assessment methods used to collect data. The data collected will then be used to reflect on instructional needs of students to raise performance.

2. Instructional technology, and assistive devices, are utilized throughout Oswego City School District as instructional aides for curriculum. Technology allows for a variety of differentiation methods. General education teachers work in collaboration with special education teachers to meet the needs of each student. Various softwares, hardware and online resources are used. The director of student services, and special education director work closely with the technology department to ensure that students are provided the resources they need to succeed. Assistive technology may include hardware, such as an iPad, laptop or other specifically outline device such as a braille printer. Special software is occasionally required for students with special needs. In the event individualized equipment, or software, is needed for a particular student, the director of student services reviews the teacher's request for equipment and verifies the request will meet the student's needs. This request is then sent to the technology department by the director of student services to process. A few of the specialized software packages that are used within the district are Jaws and Solo 6 Screen Reader for visual impairments. An online resource, Boardmaker, is used for students that may be non-verbal or have speech impairments. Bookshare is another online resource that aides students of various levels with audible books. NewsELA is an online reading platform that provides a platform for students to read at their level. General education and special education teachers collaboratively work to scaffold curriculum and enlist the assistance of technology as needed.

3. The district technology plan addresses the needs of all students, including English Language Learners. We handle each English Language Learner on a case by case basis, as needed to best meet the needs of each individual student. The director of student services oversees the ENL certified teachers in Oswego City School District and works with the technology department to provide English language learners the equipment and resources needed to provide a productive learning atmosphere. Some of the support systems used currently are System 44 and Read 180. ENL teachers utilize the software on computers on a fairly regular basis.

4. OCSD applied for, and was granted the NYSED ENL professional development waiver based on our low enrollment of ENL students. ELL teachers will be participating in all available professional development opportunities. Subsequent requests for specific ELL programs or software will be reviewed and approved as appropriate for the goals of our district and student achievement. Currently ELL staff utilize System 44, Read 180, Earobics and several online services for vocabulary instruction.

5. For cultural sensitivity, and awareness OCSD utilizes various lessons throughout the district, in a non-formal method, about other culture's holidays and languages. Our Director of Student Services works with various families and cultures within our district and even sends books home in students' first language so parents can read with their children and teach them how to read in their home language. Also, at Kindergarten orientation the district has a walk up area for any parents to get info on what the ENL program is all about in our school district and how it affects all students here.

Administrative Management Plan

Staff Plan

Title	Current FTE's
District Technology Leadership	1
Instructional Technology Specialist	1
Technical Support	7

Investment Plan

Anticipate Service or Item	If Other: Specify or N/A	Estimated Cost	One-time or Annual	Potential Funding Source	If Other Specify or N/A
End User Computing Devices		$120,000	annual	Boces CoSer, state-aid equipment	
Wireless Internet Connectivity, IT Infrastructure upkeep/repair		80000	annual	E-Rate, Boces CoSer, District Operating Budget	
Professional Development		$9,700	annual	District Operating Budget	
Instructional Software		$50,000	annual	Instructional Resource Aid	
Security Systems Maintenance		$7,000	annual	District Operating Budget	
Security System Upgrades		currently seeking project costs	one-time	Smart School Bond Act	

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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

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Benchmarks	K	1	2	3	4	5	6
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

		7	8	9	10	11	12
	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

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.	norms of behavior and positive interaction.						
	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** Select and use productivity tools, common and online applications effectively	**1.3.a** Use teacher-selected websites and software programs to reinforce skills in all subject areas.	M	M	M	M	M	M

		7	8	9	10	11	12
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, *as a class*.	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 **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.	I	G	G	G	G	G	G
	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

Component	Benchmarks	K	1	2	3	4	5	6
	2.4.l Explore and integrate alternative concepts and feedback from multiple audiences.							I
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
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	**2.2.a** Participate in online projects, *as a class*.	G	G	G	G	M	M

CREATE & COMMUNICATE	2.2.b Participate in online projects, *as an individual*.	G	G	G	G	M	M
Use digital media and platforms to communicate and work collaboratively to support individual learning and contribute to the learning of others.	2.2.c Work with others using technology tools to convey ideas or illustrate simple concepts.	G	M	M	M	M	M
	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	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
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.	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**	**12**
2.4 CONSTRUCT KNOWLEDGE, INVESTIGATE, & THINK CRITICALLY	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
Use models and simulations to explore systems, identify trends and forecast possibilities.	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	G	G	M	M	M	M

Research, manage and evaluate information and solve authentic problems using digital tools and resources.	tables, digital templates or online tools.						
	2.4.f Record and cite sources used in research.	G	G	G	M	M	M
	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.