Howard Elementary School
An Apple Distinguished School

Technology Plan
2014-2016
Revised April 2015
(Resubmitted June 9, 2015)

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Eugene, OR 97404
www.howardelementary.org

Table of Contents

Introduction and Background

Howard Elementary School is a public school located in a moderately sized district of just over 16,000 students. Howard serves approximately 348 students whose population is comprised of 74% free/reduced lunch, 33% minority, 18.5% special education, and 4.5% English Language Learner (ELL) students. Because of our high needs population, many students come to school with minimal experiences and supports that students in more advantaged homes can access to broaden their scope of understanding and enhance learning. As such, our students are at a disadvantage and do not have the same access to technology as their more affluent counter parts. We believe that by providing each student with their own laptop we have made positive gains in narrowing both the achievement gap and the digital divide so many of our students experience.

In the Eugene School District 4J, and the state of Oregon, Howard is seen as a leader in integrating technology into everyday teaching and learning. At Howard, we are fully committed to integrating technology seamlessly into every part of our curriculum. To that end, our school utilizes more than 300 Macintosh (MAC) laptops with each student, in grades first, fourth and fifth, being issued a laptop for the year. In kindergarten we have a ratio of 2:1, with two students sharing a single laptop. We have also become a part of district's iT3 ipad pilot program, which provides iPad Minis to every student in second and third grade, and now adding fourth grade. In addition to daily access to laptops and iPad minis to enrich and differentiate all areas of instruction, we offer a "take home" program for our first thru fifth grade students. Our school provides parents and families with laptop and iPad training, including computer safety and instructions on how to use the devices appropriately. Following the training, students are able to take laptops or iPads home for a pre-determined length of time based on the grade level. This "take home" program is designed to serve as an extension of the classroom, providing students with an opportunity to conduct research, continue work on digital projects, and complete homework (often in lieu of paper/pencil assignments).

Our building is entirely wireless, including a networked printer for each grade level. Our Internet connection is controlled and monitored by our district's Network Services Group. The Technology Department (TD) limits access through a user name and password while utilizing a filtering system those blocks out spam and inappropriate sites. TD also provides server space for staff and students. At Howard, we also host two separate hard drives to serve as a back up and/or extra servers.

The staff at Howard is forward thinking, always looking toward the future to discover how students learn best in the 21st century. We have found that integrating technology into our teaching and learning is a way into every student's mind, helping them learn, grow, and exceed as a learner and a contributing citizen living in a technology rich society.

Technology Plan & Mission Statement

This Plan

During the 2009-2010 school year, Howard Elementary undertook the task of creating a Technology Plan based on our School Improvement Plan and the technology goals set forth by the Eugene 4J School District. Based on this existing plan and on the ever changing technology advancements in education, we will revise the 2009-2010 plan in the 2014-2015 school year to encompass our goals and future school based plans through 2016.

The mission of the Howard Elementary Technology Plan is to ensure that students and staff are effective users of technology in the teaching and learning process, are prepared for using technology in the pursuit of higher education and career opportunities, and are empowered as citizens of the 21st century.

This mission includes:

- Utilizing technology to support District and State curriculum standards; e.g. CCSS, NGSS

- Providing instruction to advance fluency in the use of technology and to deepen students' educational experience;

- Providing learning opportunities using technology to address individual student needs, to meet/exceed state testing standards, and to broaden knowledge of the world around them;

- Providing students with digital skills to be competitive both academically and in the work place;

- Using technology in ways that promotes critical thinking and problem solving skills as they relate to the real world;

- Instructing students to navigate online resources in a safe and discerning manner;

- Enhancing student learning through the mastery of discrete computer skills at all grade levels;

- Safe and careful use of both hardware and software; and

- Offering professional development to staff in the on-going pursuit of gaining new skills and strategies designed to incorporate digital tools into daily instruction.

The goal of Howard's Technology Plan is to provide a state of the art learning environment through the infusion of modern technology hardware, software and professional development.

It is our belief that by establishing an infrastructure, and providing these learning tools, our students will be successful, contributing members of a technology-rich society.

Our Beliefs

A dedicated team of professionals, which includes teachers, support staff, and our administrator, will use technology in a positive and enriching way to better enable our students to achieve. To this end, our staff believes the following:

- Students must be literate in technology, just as they must be able to read, write, and compute mathematically; NETS #5 #6 (Digital Citizenship and Technology Operations and Concepts) - District Scope & Sequence

- As technology changes, so should our goals, instruction, and hardware;

- Teaching with technology is the educational tool of the future and we must prepare our students to learn in a technology-rich society;

- Technology should educate students toward meeting or exceeding state benchmarks;

- Technology rich learning environments prepare students for the real world and will give our students an "edge" up;

- Technology can increase student engagement and motivation;

- Technology provides low-income and disadvantaged students access to tools that their more affluent counterparts may experience on a regular basis;

- The primary use of technology should be that of instruction, with rewards and entertainment being a secondary consideration;

- Increased exposure to text and information advances learning;

- Technology used to differentiate curriculum and extend learning for students;

- Students should be taught the skills for safely navigate the World Wide Web, carefully questioning sources of information and discerning between appropriate and inappropriate sites;

- Personal safety practices, when using the Web, should be taught;

- Technology should enhance learning, supporting sound teaching practices;

- To the greatest extent possible, families should have access to technology through the take hope program as a means of supporting their child's learning;

- Students should responsibly care for the equipment they have been loaned;

- To use technology to support implementation of Common Core State Standard;

Technology Leadership Team

The Technology Leadership Team (T.L.T.) is comprised of our building administrator and staff members representing our K-2 and 3-5 teaching teams. T.L.T. meets monthly to discuss issues centered on all aspects of technology, from hardware, to software, to instruction, to professional development, and more!

Currently, our 2013-2014 TLT team consists of:

Principal:	Allan Chinn
K-2 Team:	Angela Larsen (2nd grade & Tech Leader)
	Erin Gaston (2nd Grade)
3-5 Team:	Allison Kreider (3rd grade)
	Carla Zimmerman (3rd grade)
	Jenny Groshong (4th grade)

Classroom Setup

Howard Elementary School consists of 16 classrooms; 11 general education classrooms for grades K-5 and five specialist programs including English Language Learner, Special Education, and Title 1. While each classroom infuses technology in different ways, each general ed. classroom is minimally equipped with the following:

- Mac laptop computers for all students (1st, 4th,and 5th)
- Apple iPad Mini for all students (2nd and 3rd)
- Mac iPad computer for each teacher
- Mac laptop computer for each teacher
- Interactive SmartBoard
- AverVision Document Camera
- Ceiling Mounted Projector
- Each grade level has a printer to share

Additional digital tools that are shared:
- Apple iPads (for staff)
- Apple iPad Minis for students
- Apple iPod Touches
- Drawing Tablets
- Apple iShuffles
- AirLiners
- Clickers
- Proscopes
- Digital cameras
- Flip cameras
- Snowball microphone
- Video Cameras

Software & Subscriptions

To compliment our digital tools, we have a variety programs that help our teachers facilitate their learning. Some programs were a part of the Mac suite software package while other resources have been accessed, free of charge, on line or purchased through school/district funds.

Items we have purchased:	
Microsoft Word	Pages
Excel	Numbers
Powerpoint	Keynote
iTunes	iPhoto
iMovie	iWeb
Garageband	Apple Remote Desktop
Zaner-Bloser Handwriting SMARTBoard Lessons and tutorials.	iPad/iPod Touch Apps (VPP purchasing)

Online subscriptions that we have purchased:	
RazKids	IXL Math
Tumble Books	BookFlix
Tumble Readables	News-o-Matic (D)
BrainPop	FASTT Math (does not work on iPads)
Fraction Nation (does not work on iPads)	Go Solve
SpellingCity	ABC Mouse

Software that is free:		
SMART Software	Sesame Street	Between the Lions
Literactive	PBS Kids	Learning Planet
Starfall	Learn ABC's	Virtual Manipulatives
Woodlands math	Magnetic Numbers	Dance Mat Typing
Typing ABC's	Spelling City	Wordcentral.com
Timez Attack	Math Word Problems	Math Magician
Multiplication.com	Fact Monster	Keyboarding
National Geographic (D)	Adapted Mind	World Book Kids (D)
World Book Student (D)	Yahoo! Kids	Kerpoof
Atomic Learning	Learn 360 (Lane ESD sponsored)	Eugene Pubic Library website
EnVision Visual Annimations (D)	Pearson Success Net (D)	Edmodo
Ten Marks	Kahoot	Seesaw – The Learning Journal

(D)= Paid for by our district.

Internet Use and Policies
Howard Elementary utilizes the Eugene 4J School District Internet Guidelines that outline appropriate online use of the Internet for staff and students. It contains specific policies around various controversial topics including: virus filtering, a proxy server for student computers, and maintaining a spam filter for 4J email accounts. The document also addresses copyright, intellectual property, and multimedia fair use policies for the teaching and learning environment.

District Resources for staff

An ever-increasing number of websites are now available for staff. These sites provide lesson plans, professional development, reference materials, etc. The district will continue this trend with an accompanying effort to synthesize, categorize and rate these websites and apps for getting the best available information in the shortest amount of time. Examples of this synthesis on the 4J site are the Technology In Learning and Teaching (TILT - http://www.4J.lane.edu/tilt/) and Library Services web page (http://www.4J.lane.edu/libraryservices), and the OPEN Clearinghouse (http://www.open.k12.or.us/).

Howard Resources for Staff
Located on the Howard site are links for staff, which serve as on line resources for classroom instructional purposes, staff tips and training, and communication tools.

Resources for Learners
Links for Learners, maintained by Howard staff, can be found on Howard's site. This resource is designed to provide students with educational links that build and reinforce academic skills. Each teacher at Howard also hosts a website that includes such things as classroom newsletters, units of study, homework, learning resources, calendars, photos of recent class projects, etc.

Resources for Families
Families are valued partners in the education process. District 4J maintains webpage links to information about safe schools, child safety on the Internet, and approved web sites for students. In addition, Howard Elementary offers current information about school happenings, along with links to individual classroom teacher websites and/or blogs.

Since Beginning Its Technology Immersion Program, Howard has :
- Achieved 1:1 student/laptop ratio
- Implemented student and parent laptop training program
- Purchased Apple iPads for teachers
- Purchased Apple iPod Touches
- Purchased Apple iPad Minis for 4 classrooms [using building and iT3 Project funds]
- Teachers have participated in a Title Extended Learning with Technology program (TELT)
- Created a school Twitter account; https://twitter.com/howardschool
- Created a school Facebook page; https://www.facebook.com/4jhoward
- Created a school Instragram account; https://instagram.com/4jhoward/
- Created a school WIKI; http://4jhoward.wikispaces.com/
- Established a highly functional school website; http://howard.4j.lane.edu/
- Developed websites for each classroom
- Completed extensive professional development for staff (ongoing and scaffolded)
- Provided a networked printer in every grade level
- Integrated a wide array of software programs and hardware tools into instruction
- Hosted on-site technology training sessions for the district
- Hosted countless professional development opportunities for educators, specialists, and administrators

- Utilized a Certified Technology Coach and Technology Support Specialist III
- Moved to a paperless online newsletter and a weekly staff blog; http://blogs.4j.lane.edu/chinn/
- Integrated building-wide wireless Internet access into curriculum and class activities
- Created Google Doc to manage parent/student laptop trainings
- Began implementation of Edmodo
- Installed Ceiling mounted projectors
- Participated in the Title One Extended Learning project
- Created an iPad mini website to document learning goals for the iPad mini pilot; http://teamingwithtech.blogspot.com/

Future Efforts During the Next Three-Year Plan:
- Continue professional development (ongoing and scaffolded)
- Maintain a supply of laptop batteries
- Provide more and more opportunities for teachers to share their technology strengths at times other than formal professional development days (ie floating subs, class coverage via other staff and mini trainings)
- Offer a series of technology classes throughout the year (one day a month)
- Complete installation of ceiling mounted projectors
- Begin replacing projectors with high resolution wall mounted projectors
- Utilize Skype allowing students access to the learning taking place within their classroom during an extended absence and for collaborating with other classrooms and experts globally.
- Explore ways in which we could increase family access to the Internet
- Explore keyboarding programs to be implemented school-wide
- Additional and refresher training on ARD
- Seek community support with local tech businesses to mutually collaborative relationship
- Develop a plan to replace and/or upgrade student and staff laptops
- Incorporate "distance learning", including the necessary equipment, funding, and research of virtual learning opportunities
- Purchase headsets w/microphones for each student
- Adopt and purchase a digitally based language acquisition program, such as Rosetta Stone, for students and families
- Seek an increase FTE for our Technology Support Specialist from district program staffing of the position
- Purchase personal portable external hard-drives or large memory jump drives for teachers
- Continue purchasing Apple iPads for student use, in addition to the iT3 classrooms.
- Continue exploring Apps for Apple iPod Touches and Apple iPads

Monitoring and Evaluation of the Tech Plan
Howard's Technology Leadership Team and Site Council will monitor and evaluate progress toward goals outlined in this plan annually

School Wide Technology Goals

Goal 1: Educational Achievement and Instruction

Activity	Instructional Outcome	Implemented By:
Create/Support teacher web sites for building staff.	Communication with parent, students, and staff	Principal Tech Support Specialist III
Parent Laptop Training	Families will be informed of guidelines that are taught at school and implemented at home.	Principal Teachers Tech Support Specialist III
Student Technology Training	Students will learn/refresh school guidelines about technology use	Principal Teachers Tech Support Specialist III
Maintain 21st century technology components in each classroom	Staff will meet student and teacher state technology standards embedded with CCSS and NGSS. Instruction will be varied, engaging and appropriate. Teachers and students will stay current with technology.	Principal Teachers Tech Support Specialist III District
Support of all technology goals	Improved instruction in the classroom for all.	Principal Teachers Tech Support Specialist III District

Goal 2: Maintaining Hardware and Software

Activity	Instructional Outcome	Implemented By:
Provide support for maintenance of all hardware and software	Staff is supported by having a reliable network and appropriate software and hardware to complete their job.	Principal Tech Support Specialist III 4J HelpDesk x7777 4jdesktop@4j.lane.edu
All student and teacher laptops will be refreshed and updated (software updates) each year		Tech Support Specialist III Teachers
Maintain wireless network and communicate any problems that may arise with the system	Increased efficiency for students and staff to access technology for instructional purposes.	Tech Support Specialist III Teachers District
Develop a system for purchasing and using Apple iPod Touch/iPad Apps.	Develop a library of educational Apps. to support content standards	Tech Support Specialist III Teachers Principal District

Goal 3: Implementation of State Technology Standards for all.

Activity	Instructional Outcome	Implemented By:
Include technology standards in professional development plans	Staff and students will meet current CCSS and NGSS embedded standards at each grade level	Principal Teachers Tech Support Specialist III District
Develop and Implement student technology standards at all grade levels *	Technology standards will be followed at all grade levels in all curriculum areas	Principal Teachers Tech Support Specialist III Specialist

* NETS standard 6 has been modified to fit expectations for Howard Elementary at http://www.4Jhoward.wikispaces.com/technology

Goal 4: Future Hardware

- Same device for teachers as students (iPad Mini or Air with same features) with the most memory possible. (with airplay and air-drop)
- All school implementation of iPad mini's (K-3). 2nd and 3rd implementation/continuation 2014-2015. Implementation of iPads for 1st fall 2015-2016 and for KG 2016-2017.
- Staff would like to continue with SmartBoard technologies and stick with Mac interface.
- Bodelin Technologies Proscope Micro Mobile Digital Microscope Kit (set of 15)
- Wireless Everything (Document Camera, SmartBoard, Speakers)
- News-O-Matic subscription for school
- Class set of wired keyboards that work with laptops iPad Minis.

Goal 5: School Improvement Plan (located at http://www.howardelementary.org)

ISTE

Standards

ISTE Standards
Students

Revisted 10-21-14

1. Creativity and innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

a. Apply existing knowledge to generate new ideas, products, or processes

b. Create original works as a means of personal or group expression

c. Use models and simulations to explore complex systems and issues

d. Identify trends and forecast possibilities

2. 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.

a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media

b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats

c. Develop cultural understanding and global awareness by engaging with learners of other cultures

d. Contribute to project teams to produce original works or solve problems

3. Research and information fluency

Students apply digital tools to gather, evaluate, and use information.

a. Plan strategies to guide inquiry

b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media

c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks

d. Process data and report results

4. 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.

a. Identify and define authentic problems and significant questions for investigation

b. Plan and manage activities to develop a solution or complete a project

c. Collect and analyze data to identify solutions and/or make informed decisions

d. Use multiple processes and diverse perspectives to explore alternative solutions

5. Digital citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

a. Advocate and practice safe, legal, and responsible use of information and technology

b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity

c. Demonstrate personal responsibility for lifelong learning

d. Exhibit leadership for digital citizenship

6. Technology operations and concepts

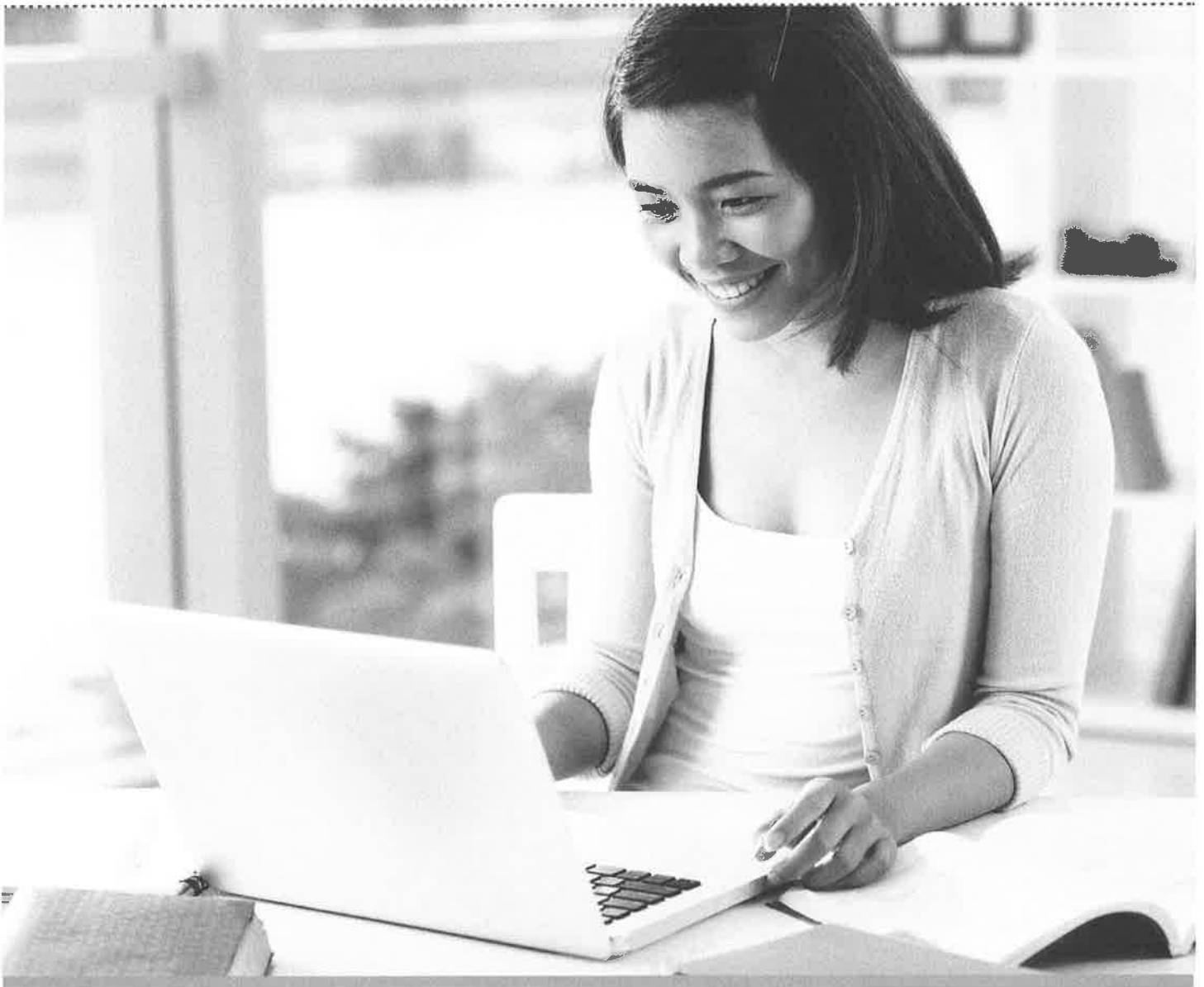Students demonstrate a sound understanding of technology concepts, systems, and operations.

a. Understand and use technology systems

b. Select and use applications effectively and productively

c. Troubleshoot systems and applications

d. Transfer current knowledge to learning of new technologies

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iste.org/standards

ISTE
Standards

ISTE Standards
Teachers

Effective teachers model and apply the ISTE Standards for Students (Standards•S) as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students, colleagues, and the community. All teachers should meet the following standards and performance indicators.

1. Facilitate and inspire student learning and creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

a. Promote, support, and model creative and innovative thinking and inventiveness

b. Engage students in exploring real-world issues and solving authentic problems using digital tools and resources

c. Promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes

d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

2. Design and develop digital age learning experiences and assessments

Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the Standards•S.

a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity

b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress

c. Customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources

d. Provide students with multiple and varied formative and summative assessments aligned with content and technology standards, and use resulting data to inform learning and teaching

3. Model digital age work and learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.

a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations

b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation