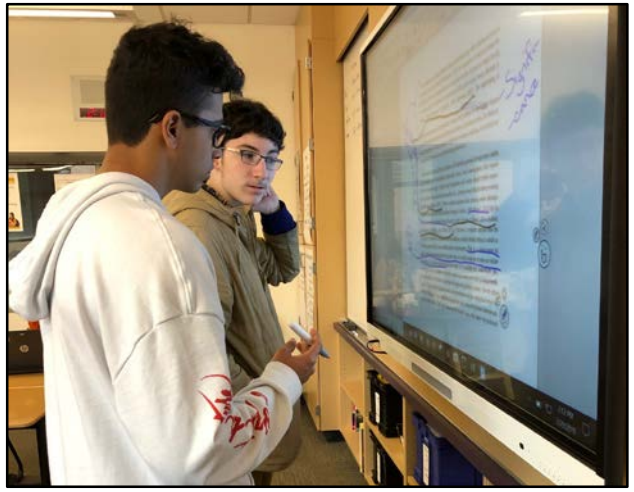
Information & Communication Technology

Every Student Future Ready:

Prepared for College - Prepared for the Global Workplace - Prepared for Personal Success

Second Grade SMART Board

Fifth Grade 1:1 Pilot



High School
SMART Board Pilot

Leveraging learning through Information and Communication Technology!

Connecting Ends (ERs) and Means (ELs)

End Results specify the results that we want for our students and what we expect them to know and be able to do

ER 1: **Mission and Vision**	**ER 2:** **Content Knowledge**	**ER 3:** **Interdisciplinary Skills and Attributes**
Mission Each student will graduate prepared to lead a rewarding, responsible life as a contributing member of our community and greater society. **Vision** Every Student Future Ready: • *Prepared for College* • *Prepared for the Global Workplace* • *Prepared for Personal Success*	• Literacy & Language • Mathematical & Scientific Reasoning • Social Studies • **Information & Communication Technology** • Culture & the Arts • Career Planning & Life Management	• Academic Thinking Skills & Strategies • Communication & Collaboration Skills • Local & Global Citizenship Skills • Personal Attributes

Executive Limitations specify the strategies and methods that we use to achieve End Results

1. Global Executive Constraint
2. Emergency CEO Succession
3. Communication and Counsel to the Board
4. Annual Report and District Calendar
5. Parents and Community
6. Student Learning Environment
7. Academic Program
8. Instructional Materials Selection
9. District Staff
10. Budgeting/Financial Planning
11. Financial Administration
12. Asset Protection
13. Facilities
14. Technology

Information and Communication Technology

End Results specify what students are expected to know and be able to do

ER 2: Interdisciplinary Content Knowledge	ER 3: Interdisciplinary Skills and Attributes
Information & Communication Technology o Demonstrates information, communication, and media literacy o Understands the relationships of technology to productivity and quality of life o Presents information for a variety of audiences and purpose using a range of information & Communication Technology Tools	• Solves Problems Effectively • Offers Ideas and Makes Contributions • Works Well With Others • Persists in Difficult Tasks • Maintains a Global Perspective • Exhibits a Strong Work Ethic

Executive Limitations specify the strategies and methods used to achieve End Results

EL 7: Academic Program

- 7.1 Develop and implement an academic program that specifies:
  - Academic content and technology standards that meet or exceed state and nationally-recognized model standards
  - Curriculum aligned with and designed to enable students to meet or exceed the established standards
  - Assessments that will adequately measure each student's progress toward achieving the standards

What is Information and Communication Technology?

As outlined in our Student Profile, students will:

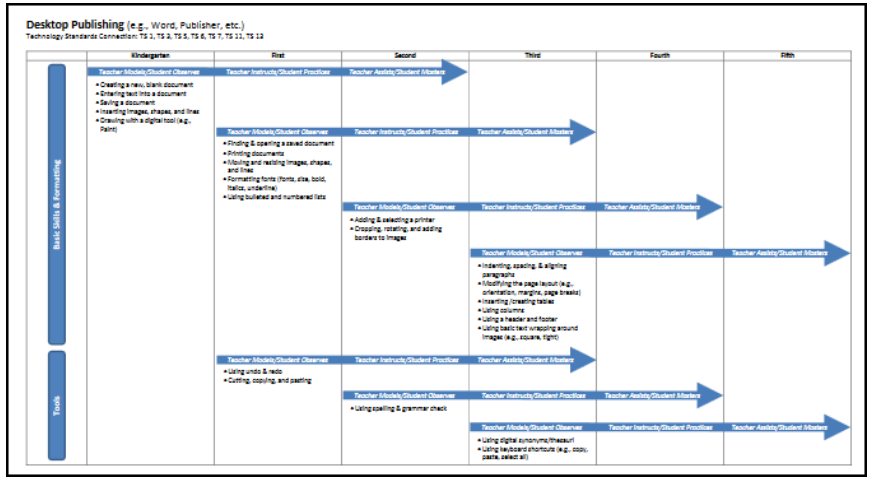
- Demonstrate information, communication, and media literacy
- Understand the relationships of technology to productivity and quality of life
- Present information for a variety of audiences and purposes using a range of Information & Communication Technology Tools

LWSD Technology Framework

- Standards
  - Washington State K-12 Educational Technology Learning Standards
    - New standards 2018
- Proficiency Scales
  - Developed 2012-15

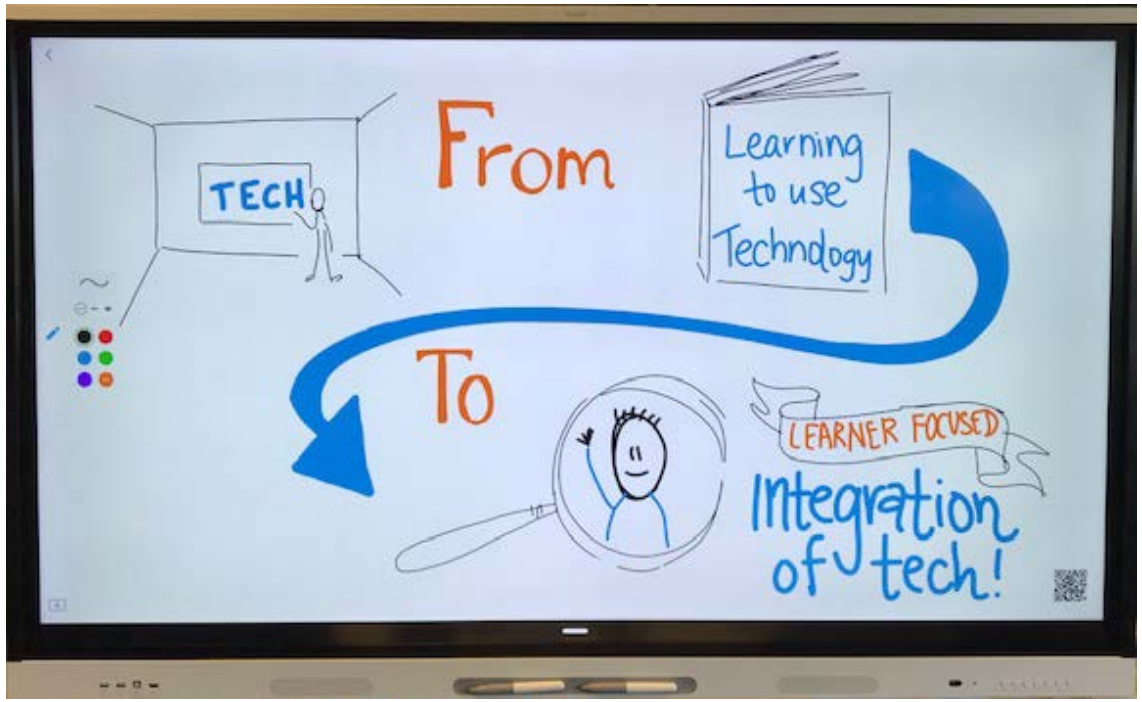
Technology Standards used to create the Technology Skills Continuum

- Technology Skills Continuum
  - Foundational skills that lead students to meeting technology standards
  - Organized by skill categories
    - Drafted 2015
    - Implemented 2017-19
    - Align with new standards 2018-20



WA Educational Technology Learning Standards

- Learner driven process:
  - Exploration
  - Creativity
  - Discovery
  - Using technology for learning

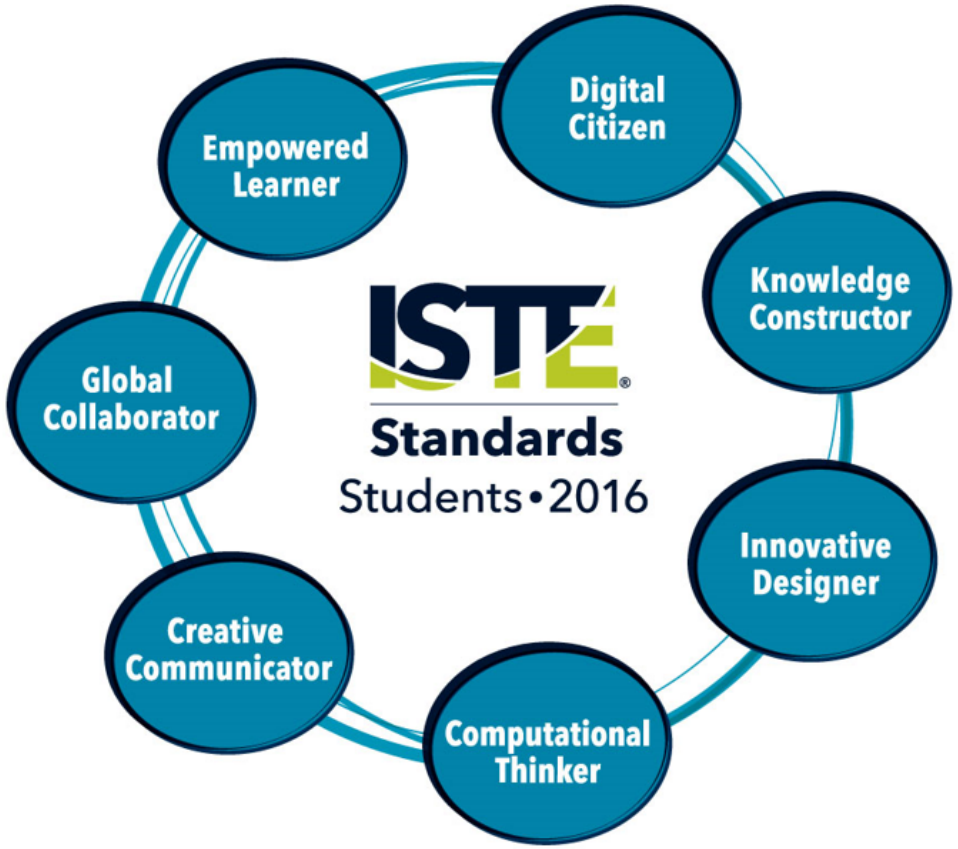


- Amplify and transform learning and teaching in all content areas
- Prepare students for careers, post-secondary aspirations, and beyond
- *These provide "WHY" technology should be integrated into teaching & learning.*

WA Educational Technology Learning Standards

2018 Standards for Technology Literate & Fluent Students

(Based upon 2016 ISTE Student Standards)



WA Educational Technology Learning Standards

4. INNOVATIVE DESIGNER

- ***Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.***

Samples of student performance:

- **K-2:** Students record their step-by-step process through digital drawing or video.
- **3-5:** Students plan and implement a design process: identify a problem, think about ways to solve the problem, develop possible solutions, test and evaluate solution(s), present a possible solution, and redesign to improve the possible solution.
- **6-8:** Students use digital tools to brainstorm and develop collaborative and collective solutions to a shared problem.
- **9-12:** Students critically evaluate and demonstrate a design solution at multiple points of the design process, and consider design requirements and adjust processes and outcomes as needed.

WA Educational Technology Learning Standards

5. COMPUTATIONAL THINKER

- ***Students develop and employ strategies for understanding and solving problems in ways that leverage technological methods to develop and test solutions.***

Samples of student performance:

- **K-2:** Students use an interactive whiteboard or other interactive tool to sort and categorize various items or objects to support classroom learning.
- **3-5:** Using digital tools, students compare data to create visually appropriate graphical representation of the data (e.g., line graphs, circle graphs, bar graphs, etc.).
- **6-8:** Students demonstrate an understanding of logical processes and use reasoning (e.g., IF-THEN statements) to infer and compare solutions and draw conclusions in a variety of content areas.
- **9-12:** Students develop an instructional video, brochure, notebook, or other presentation tool to explain a complex scientific issue into smaller factors and systems to teach others about the issue.

WA Educational Technology Learning Standards

7. GLOBAL COLLABORATOR

- ***Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.***

Samples of student performance:

- **K-2:** Students collaborate using online software so that multiple perspectives can be captured.
- **3-5:** Students create a plan and select collaboration and/or communication tools to complete a given task.
- **6-8:** Students collaborate in an online platform with a variety of peers, experts, and community members.
- **9-12:** Student project planning includes culturally responsive explorations, such as reporting on different cultures' uses of technology.

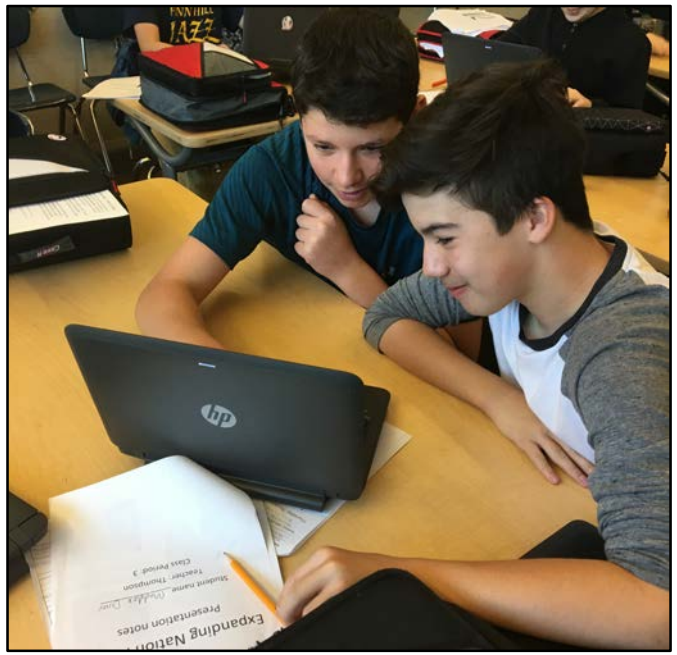
Information & Communication Technology in our Schools

Information & Communication Technology : Elementary

Kindergarten students using DreamBox.

Weekly Time:	• Integrated within core content
Guiding Documents	• WA Educational Technology Standards • Technology Proficiency Scales • Technology Skills Continuum
Instructional Materials	• Office 2016 Suite • SMART Notebook • PowerSchool Learning • EduTyping (Keyboarding) • Common Sense Media (Digital Citizenship) • Digital curriculum resources • DreamBox (Adaptive Math) • Learning.com (Digital Literacy pilot)
Supporting Resources	• K - 2nd, 3:1 mobile devices • 3rd - 4th, 2:1 mobile devices • 5th, 1:1 mobile devices in 2019/20 • SMART Boards 2017-2019

Information & Communication Technology: Middle School



Middle school students collaborating to peer edit using Word and PowerSchool Learning.

Weekly Time	• Integrated within core content • Electives
Guiding Documents	• WA Educational Technology Standards • Technology Proficiency Scales • Technology Skills Continuum
Instructional Resources	• Office 2016 Suite • SMART Notebook • PowerSchool Learning • EduTyping (Keyboarding) • Common Sense Media (Digital Citizenship) • Online Databases • Digital curriculum resources • Supplemental resources
Supporting Resources	• 1:1 mobile devices • SMART Board 2019-2021

Middle School Electives

Information Communication Technology	
• Robotics 1,2,3 • Design and Modeling Software • Digital Photography • Gateway to Technology (Project Lead the Way) • Advanced Digital Media • Digital Video • Video Game Design and Programming • STEM 1,2,3	• Graphic Arts • Digital Design • Computer Aided Design (CAD) and Manufacturing • Technology 1,2,3 • Media Production/Movie Making • Sci-Ma-Tech • Computer Applications • Technology Foundations

Information & Communication Technology: High School

High school students use SMART Notebook “Shout It Out” lab activity to answer a science question. Responses displayed on SMART Board.

Weekly Time	• Integrated within core content • Electives
Guiding Documents	• WA Educational Technology Standards • Technology Proficiency Scales • Technology Skills Continuum
Instructional Resources	• Office 2016 Suite • SMART Notebook • PowerSchool Learning • Common Sense Media (Digital Citizenship) • Online Databases • Digital curriculum resources • Supplemental resources
Supporting Resources	• 1:1 mobile devices • SMART Boards 2019 - 2021

High School Electives

Information Communication Technology	
• Computer Science • Computer Science and Software Engineering • AP Computer Science • Intro to Engineering Design • Principles of Engineering • Material Science • Engineering Design and Development • Digital Production Studio • Digital Video	• Digital Design • Digital Photography 1,2 • Architectural Drawing 1,2/3 • Microsoft Imagine Academy • Video Production 1,2 • Digital Graphics • Microsoft IT Academy • WaNIC DigiPen Art and Animation • WaNIC Video Game Programming

Supporting Information & Communication Technology

Continuum of Support:

Technology Integration Facilitators (TIF)

- Building Technology Integration Facilitators
- Train the trainer model
- Consultation & Collaboration meetings
- Facilitators in each school work with principal to create building instructional technology plans

Professional Learning

- Professional Learning Series classes
- Mobile Teaching & STEM Cohort
- Technology Workshops
- SMART Interactive Panel & Software trainings
- 5th grade 1:1 pilot, trainings
- DreamBox trainings
- Learning.com pilot, trainings

Knowledgebase for Integrating Technology (KIT)

- Tutorial resources and instructional strategies to support:
  - Curriculum Online
  - Hardware/Software
  - Microsoft Applications
  - Mobile Teaching
  - PGE Online
  - PowerSchool Learning
  - Staff Digital Citizenship and Acceptable Use Procedures
  - Technology Assistance
  - Technology Integration
  - Technology Training
  - Web Applications

TIF Program

TI Facilitator Training Book Study: *Tasks Before Apps*

Target Audience	Building TI Facilitators, Building Administrators, Technology Integration Specialists
Purpose	• Develop Building Instructional Technology Plans • Support teacher leaders in developing and implementing building based professional learning • Focus on pedagogy and leveraging technology to enhance teaching and learning • Differentiate at the building level based on strategic work, needs, and interests
Format	• Monthly teacher leader meetings • 2 scheduled building meetings per year
2018-19	• 4 Technology Integration Specialists • 41 elementary teacher leaders • 33 secondary teacher leaders

Technology Integration Survey: Surface Book Impact

50% of teachers reported increased productivity including managing one device that they take to trainings.

LEAP Survey August 2018	1,078 teacher responses to question: *"How has a Surface Book impacted your professional work and/or student instruction?*
Strengths from 2017-18	• Flexibility • Moving Around Classroom • Productivity • Classroom Management
Growth Areas 2018-19	• Digital Inking • Teaching Beyond Classroom Walls

Professional Learning

Elementary teachers learn how to utilize SMART panel interactive tools and instructional software.

Target Audience	All teachers
Purpose	Provide teachers with professional learning opportunities that impact their instructional practice and successfully integrate technology within teaching and learning
Format	• Building trainings for new programs • In-person classes • Online classes • Blended learning classes • Cohorts • Webinars
2018-19	• 86 SMART building trainings • 35 DreamBox building trainings • 56 Optional Classes • 852 Participants

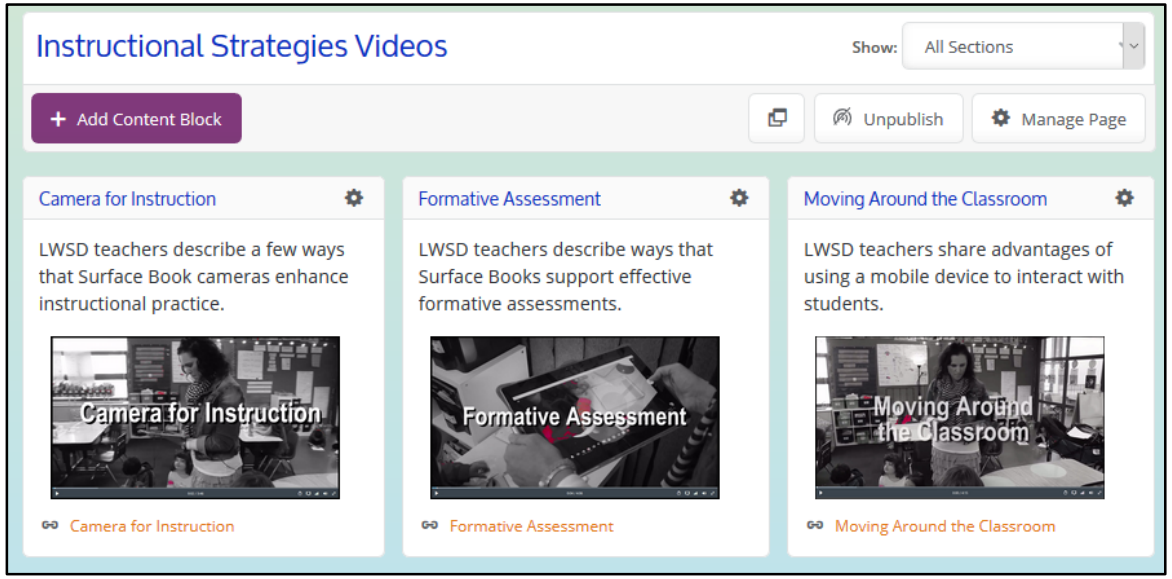
Professional Learning: Technology Integration Optional Classes

- Classes offered 2018-19: 56
- Class participants through March: 852

- Examples of classes:
  - Collaborating with OneNote Class Notebook
  - Data Collection with Microsoft Forms
  - Digital Inking in the Classroom
  - Integrating Technology to Support Problem-Based Learning
  - Introduction to Clicker 7 "The Complete Literacy Toolkit"
  - Mobile Teaching & STEM Cohort
  - SMART Notebook: Power & Potential
  - Teaching with Mobile Staff Devices
  - Using Surface Book Cameras to Enhance Instruction

Mobile Teaching & STEM Cohort

Knowledgebase for Integrating Technology (KIT)

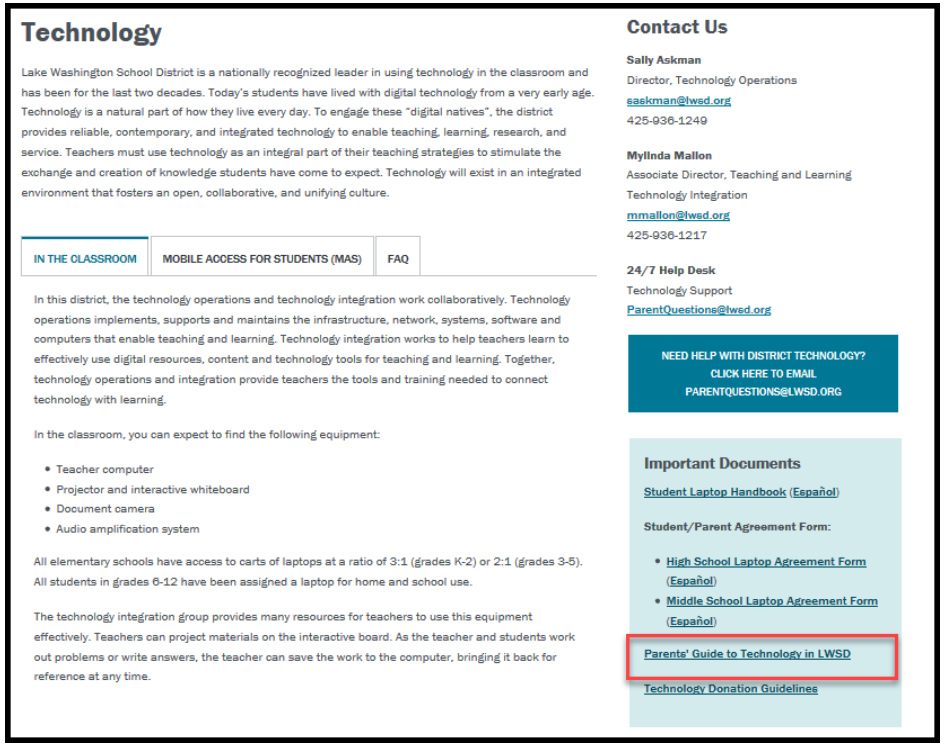


Target Audience	Teachers and administrators
Purpose	Provide teachers online tools and resources necessary to successfully integrate technology within teaching and learning
Format	Asynchronous learning to facilitate information sharing outside the constraints of time and place
2018-19	2,368 hours of use (August – March)

Supporting Parents

- **LWSD Webpage: Programs and Services > Technology**

  - Parents' Guide
    - Classroom Technologies and Student Devices
    - Technology Applications for Learning
    - Technology Standards and Skills Learning Expectations
    - Technology Systems for Student/Teacher/Parent Communication



Technology

Lake Washington School District is a nationally recognized leader in using technology in the classroom and has been for the last two decades. Today's students have lived with digital technology from a very early age. Technology is a natural part of how they live every day. To engage these "digital natives", the district provides reliable, contemporary, and integrated technology to enable teaching, learning, research, and service. Teachers must use technology as an integral part of their teaching strategies to stimulate the exchange and creation of knowledge students have come to expect. Technology will exist in an integrated environment that fosters an open, collaborative, and unifying culture.

IN THE CLASSROOM | MOBILE ACCESS FOR STUDENTS (MAS) | FAQ

In this district, the technology operations and technology integration work collaboratively. Technology operations implements, supports and maintains the infrastructure, network, systems, software and computers that enable teaching and learning. Technology integration works to help teachers learn to effectively use digital resources, content and technology tools for teaching and learning. Together, technology operations and integration provide teachers the tools and training needed to connect technology with learning.

In the classroom, you can expect to find the following equipment:

- Teacher computer
- Projector and interactive whiteboard
- Document camera
- Audio amplification system

All elementary schools have access to carts of laptops at a ratio of 3:1 (grades K-2) or 2:1 (grades 3-5). All students in grades 6-12 have been assigned a laptop for home and school use.

The technology integration group provides many resources for teachers to use this equipment effectively. Teachers can project materials on the interactive board. As the teacher and students work out problems or write answers, the teacher can save the work to the computer, bringing it back for reference at any time.

Contact Us

Sally Askman
Director, Technology Operations
saskman@lwsd.org
425-936-1249

Mylinda Mallon
Associate Director, Teaching and Learning
Technology Integration
mmallon@lwsd.org
425-936-1217

24/7 Help Desk
Technology Support
ParentQuestions@lwsd.org

NEED HELP WITH DISTRICT TECHNOLOGY?
CLICK HERE TO EMAIL
PARENTQUESTIONS@LWSD.ORG

Important Documents

Student Laptop Handbook (Español)

Student/Parent Agreement Form:

- High School Laptop Agreement Form (Español)
- Middle School Laptop Agreement Form (Español)

Parents' Guide to Technology in LWSD

Technology Donation Guidelines

Information & Communication Technology

Leveraging learning through Information and Communication Technology!