OVERVIEW
The schools in the LeSueur-Henderson School District are creating a new vision for education and are transitioning to become student-centric and technology enriched learning environments. Utilizing technology resources in curriculum and instruction will enhance face-to-face learning and increase student engagement that will result in students developing a deeper intrinsic motivation for their learning. Empowering students to be self-motivated learners and ensuring that curriculum and instruction are aligned with 21st Century skills and tools will lead to improved student academic and assessment performance.

This technology plan serves to ensure that school technology resources meet the academic needs of students and staff as the school and educators shift their pedagogy and curriculum to focus on real world learning opportunities to meet students where they learn best.

*When technology enables, empowers, and accelerates a profession’s core transactions, the distinctions between computers and professional practice evaporate.*

- Weston & Bain (2010)

I. STRATEGY
Mission
- Our mission is to provide the 1:1 technology resources that are necessary to effectively integrate technology into curriculum and instruction to improve student learning, increase learning opportunities, and encourage the use of different and innovative teaching methods.

Vision
- Our vision is a student-centric learning environment where the use of modern technology is routine, transparent, and supports curricular goals.

Beliefs
We believe that integrating technology into curriculum and instruction:
- offers educators effective ways to reach different types of learners
- empowers students’ intrinsic motivation for learning
- allows for multiple ways of assessing student understanding
- enhances relationships between teachers and students
- enables teachers to become facilitators of learning
- makes learning more meaningful and engaging for students
- is based on local, national, and ISTE standards
- fosters 21st Century Skills
- promotes active student participation
- encourages student participation in groups
- facilitates frequent interaction and feedback between students and teachers
- establishes connections to real-world experts
- encourages students to think creatively
- prepares students for college and careers
is most effective when transparent and is driven by curriculum and instruction

Goals
1. Increase student engagement
   a. Increase student academic and assessment performance
   b. Develop students' intrinsic motivation for learning
   c. Implement student-centric teaching strategies
2. Integrate technology into curriculum and instruction
   a. Implement innovative teaching strategies
   b. Increase opportunities for students to apply knowledge
   c. Increase depth and breadth of students' understanding of subjects taught
   d. Allow all students to participate meaningfully in the curriculum
   e. Overcome barriers of accessibility
3. Strengthen 21st century skills
   a. Change the school culture and instructional practices to encourage creative thinking, expect critical thinking and problem-solving, require student collaboration and communication using real world tools.
4. Create a systemic staff development program to assist teachers in integrating technology and innovative thinking into curriculum and instruction.
   a. Implement a professional development academy
   b. Implement Design Thinking strategies

The factory model of education is the wrong model for the 21st century. Today, our schools must prepare all students for college and careers - and do far more to personalize instruction and employ the smart use of technology.

- U.S. Secretary of Education Arne Duncan

II. REQUIREMENTS (referenced off of needs assessments)
During the 2010-2011 school year, LeSueur-Henderson Public Schools conducted various needs assessment during its Media and Technology Curriculum Review. This process utilized three surveys of various district stakeholders to determine technology use and needs.

- Minnesota Department of Education (MDE) Instructional Practices Survey was used to determine instructional practices as related to technology use in the classroom.
- Technology Equipment Needs Assessment survey was used to determine technology equipment needs and instructional goals and practices upon acquisition of equipment.
- Student Technology Needs Assessment survey was used to determine student perceptions and attitudes about technology use within LeSueur-Henderson Public Schools.

During December 2011, LeSueur-Henderson Public Schools organized a Tech & Integration Task Force to identify the purpose and importance for developing a 1:1 Initiative Plan Proposal. The following needs were identified for 1:1 Initiative using information obtained through various needs assessment surveys and the Tech & Integration Task Force.

1. Hardware Needs
a. Increased access to technology resources, including student computing devices and updated sound amplification systems in each classroom.

b. Expansion of the school’s wireless network to allow for staff and student access on school grounds surrounding buildings.

c. Expansion of the school’s wireless network to allow for increasing student access to the guest network to support increased student owned devices.

d. Increase Internet bandwidth to meet the needs of increased student and staff devices that will be accessing the Internet.

3. Software Needs
   
e. Access to district branded learning management system to support online learning opportunities.

f. Continued student implementation of Google Apps, moving away from desktop productivity software.

4. Staff Development Needs
   
g. Focus professional development on instructional strategies using technology in the classroom.

h. Establish Technology Integration Academy to train and assist staff to integrate technology into curriculum and instruction.

i. Establish clear and concise expectations for technology integration.

j. Curriculum writing time for teachers to integrate technology into curriculum and instruction.

Student feedback collected through a student technology assessment in May 2011 indicate that students would like to see an increase in the use of technology in their classrooms. Students were asked as part of the survey, “What should the school district do to improve the technology in your school?”

1. 64% of students agreed or strongly agreed with the statement “I learn best when I can control the flow of information and make decisions.”

2. 73% of students agreed or strongly agreed with the statement “If I had a laptop in class it would help me understand and process new information.”

3. 71% of students agreed or strongly agreed with the statement “I prefer immediate feedback on quizzes and tests.”

4. 65% of students disagreed or strongly disagreed with the statement “If I had a laptop in class I would be distracted by it.”

In schools where teachers and students have cognitive tools we should see educational practices that have been transformed by technology that accelerates, differentiates, deepens, and most importantly maximizes the learning experiences of all students.

- Weston & Bain (2010)

III. DESIGN, DEVELOP, PURCHASE TECHNOLOGY
Students and staff will adopt a 1:1 computing device model, where students will be issued a mobile computing device to increase access to digital learning tools that will enhance learning experiences.

The next steps for adopting a 1:1 initiative include making informed decisions about the best device to implement into curriculum and instruction. Current perceptions about which device will best meet our needs are mixed, and further discussions are necessary to select which devices will be purchased.
for students to use. Current discussions indicate that tablet computing devices offer the greatest opportunities to transform curriculum and instruction to become student-centric.

*Computing devices are not technological tools; rather, they are cognitive tools that are holistically integrated into the teaching and learning processes of their school.*

- Weston & Bain (2010)

**IV. IMPLEMENT AND TRAIN**

The 1:1 Initiative Technology Plan will utilize a district Technology Integration Academy to provide professional development for teachers as they integrate technology into their curriculum and instruction.

Technology Integration Academy - [https://sites.google.com/site/lshtechacademy/](https://sites.google.com/site/lshtechacademy/)

The Academy offers teachers technology integration professional development each school year. In the Academy, teachers participate in professional development activities with their peers to integrate specific technology tools into their curriculum and instruction.

The Academy's activities focus on three tiers of proficiency for specific technology tools. The three proficiency tiers address basic skills using the technology tool, applying the technology tool toward student achievement, and integrating the technology tool into curriculum and instruction.

Teachers are awarded a certificate of technology integration proficiency after they demonstrate proficiency using and integrating technology into their curriculum and instruction. Certificates of technology integration indicate teachers are prepared to adjust their curriculum and instruction to include technology with their pedagogy and content knowledge.

**Tier 1 - Basic Skills Training**

Basic Skills Training involves basic skills training for using technology tools that will be integrated into curriculum and instruction. In Basic Skills Training teachers will develop the skills and confidence using a specific technology tool that they will need to be able to integrate the tool into curriculum and instruction.

- Basic tool skills training
- Moving beyond the basics - tool training
- Skills training is facilitated and supported by the technology integration specialist(s).

**Tier 2 - Advanced Applications Training**

Advanced Applications Training prepares teachers to apply their knowledge of technology tools toward their curriculum and instruction. In Advanced Applications Training teachers explore best practice strategies and apply the skills they developed in tier one training to create instructional materials using specific technology tools. After completing Advanced Applications Training, teachers will have the basic skills and application knowledge about how specific technology tools can be integrated into curriculum and instruction.

- Theories, research, applications, best practices
- Advanced applications training is delivered by the technology integration specialist(s) and it is supported by professional learning communities (PLCs).
- Teachers participating in the Academy will be organized into technology PLCs based on teachers’ interest for integrating specific technology tools. For example, a technology PLC will be organized for all middle school teachers who are interested in integrating interactive whiteboards into their curriculum and instruction.
Tier 3 - Practicum
The practicum provides time and encourages teachers to experiment using specific technology tools in their curriculum and instruction. During the practicum teachers will develop and integrate practical and appropriate instructional materials using specific technology tools. The technology PLCs established during Advanced Applications Training will support teachers during their practicum. Teachers will meet with their technology PLCs every two weeks to discuss and develop common materials and strategies for integrating specific technology tools into their curriculum and instruction. Through the practicum, teachers will demonstrate proficiency using and applying specific technology tools to student learning. After completing the practicum, teachers will be able to include technology along with pedagogy and content knowledge in their curriculum and instruction.

- Practical, authentic experiences using technology with students during instruction.
- Opportunities and time for experimenting integrating technology into instruction, and reflecting on the process and results.
- The practicum is supported by technology PLCs and the technology integration specialist.

Best Practice Showcase
All teachers who earn certificates of technology integration are encouraged to present their experiences from the Academy with colleagues at the end of the school year. The showcase serves to celebrate teachers’ success stories and share best practices about integrating specific technology tools with colleagues, who may be inspired to integrate similar tools and strategies into their own curriculum and instruction.

V. MAINTAIN TECHNOLOGY AND CONTINUE LEARNING
Technology resources will be managed and maintained by the District Technology Director and the Building Technology Support Specialists.

Continual learning for technology resources and technology integration will be facilitated by the District Technology Integration Specialist and supported by the following district and building level groups and individuals:

- District and Site Staff Development Teams
  - Vision
  - Expectations
  - Decision making about training opportunities
- District Technology Advisory Council
  - Vision
  - Expectations
  - Decision making about hardware and software resources
- District Technology Coordinator
  - Consulting
  - Just-in time hardware and software support
  - Technology plan
- Technology Integration Specialist
  - Just-in time support
  - Co-teaching
  - Consulting
  - Collaboration
  - Coaching
  - Academy Training facilitation
  - Academy Training scheduling
● Building Technology Support Staff
  ○ Just-in time hardware and software support

● District and building level administration
  ○ Expectations
  ○ Curriculum support
  ○ Proficiency evaluation

● District Curriculum Coordinator
  ○ Consulting
  ○ Curriculum support
  ○ Curriculum plan

● Professional Learning Communities
  ○ Peer collaboration
  ○ Professional networking
  ○ Common strategies
  ○ Opportunities for reflection

● Teachers on Special Assignment (TOSA)
  ○ Consulting
  ○ Pedagogical support
  ○ Curriculum support

● Mentor teachers
  ○ Just-in time support
  ○ Co-teaching
  ○ Collaboration

● Cognitive Coaches
  ○ Coaching for planning
  ○ Coaching for reflection
  ○ Coaching for problem resolution

VI. IMPLEMENTATION TIMELINE

● January 2012
  ○ Present initial proposal to administration and school board
  ○ Purchase devices for STEM teachers
  ○ Set-up devices for STEM teacher deployment
  ○ Develop initiative goals and strategies
  ○ Determine device type(s)
    ■ Staff devices
    ■ Student devices

● February 2012
  ○ Device training for STEM teachers
    ■ Technology Integration Academy - Tier 1
  ○ Develop device AUP for students
    ■ User fees (insurance)
    ■ Expectations
    ■ Limitations
    ■ Accountability
  ○ Refine implementation timeline

● March 2012
  ○ Receive final School Board approval for project
  ○ Professional Development for integrating devices into curriculum and instruction
    ■ Technology Integration Academy - Tier 2
Establish Tech PLCs for STEM teachers
Teachers will begin explore curriculum applications for integrating devices into curriculum and instruction
Teachers will begin to develop curriculum
  o Refine implementation timeline
• April 2012
  o STEM Tech PLCs will meet weekly
    ■ Technology Integration Academy - Tier 3
  o Refine implementation timeline
• May 2012
  o STEM Tech PLCs will meet weekly
    ■ Technology Integration Academy - Tier 3
  o Refine implementation timeline
• June 2012
  o Refine implementation timeline
• July 2012
  o Purchase (lease) and order devices
  o Receive order of devices
  o Set-up devices for non-STEM teacher deployment
  o Deploy infrastructure upgrades
  o Refine implementation timeline
• August 2012
  o Deploy devices for non-STEM teachers
  o Device training for non-STEM teachers
    ■ Technology Integration Academy - Tier 1
  o Professional Development for integrating devices into curriculum and instruction
    ■ Technology Integration Academy - Tier 2
    ■ Teachers will begin to explore curriculum applications for integrating devices into curriculum and instruction
    ■ Teachers will begin to develop curriculum
  o Refine implementation timeline
  o STEM student device deployment
  o STEM parent/student 1 To 1 Open House
• September 2012 - January 2013
  o Professional Development for integrating devices into curriculum and instruction
    ■ Technology Integration Academy - Tier 2
  o Establish Tech PLCs for non-STEM teachers
  o Teachers will continue to explore curriculum applications for integrating devices into curriculum and instruction
  o Set-up devices for student deployment
    ■ Update OS
    ■ Install apps
    ■ Configure devices for student use
  o Refine implementation timeline
• January 2013
  o Kick-off event to introduce 1:1 initiative to students and parents
    ■ Deploy devices to students
      ● Students and parents sign AUP
      ● Students and parents pay tech fee
  o Teachers implement devices
Teachers experiment using curriculum and instruction embedded with new student-centered devices

- Tech PLCs will meet weekly
  - Technology Integration Academy - Tier 3

February 2013 - May 2013
- Tech PLCs will meet weekly
  - Technology Integration Academy - Tier 3

May 2013
- Teacher Best-Practice Showcase
  - Technology Integration Academy
- Collect devices from students
  - Device check-in

June 2013
- Evaluation survey of initial devices integration
  - Students
  - Parents
  - Staff
  - Administration

June 2013 - August 2013
- Review data from devices integration evaluation survey
  - Successes, efficiency, effectiveness
    - What worked?
    - What needs to be adjusted?
- Revise policies and procedures using data from evaluation
- Prepare for re-deployment of devices at start of school year in August/September
  - Devices maintenance
    - Clean devices
    - OS upgrades
    - Re-format devices
      - Re-install apps and install new apps as necessary
  - Network and system adjustments and upgrades
  - Professional development for staff

September 2013

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