Irvington Union Free School District
District Technology Plan 2018 - 2021

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Technology Planning

This document represents a plan designed to launch both short and long- range planning for technology for the Irvington School District. The plan is based on a framework that was developed to guide the decisions and next steps for the Irvington School District. The plan includes the following:

➢ Theories of Action and Goals, which reflect the current work of the district and the vision for future work and expectations for teaching and learning
➢ The structure for group representation and creation of future technology planning and documentation
➢ Technology goals that include:

Irvington UFSD Technology Goals

➢ Technology Goal #1: Mobile Student Centered Computing
➢ Technology Goal #2: Interactive Multimedia Capable
➢ Technology Goal #3: Professional Development
➢ Technology Goal #4: Electronic Resources
➢ Technology Goal #5: Curriculum Integration
➢ Technology Goal #6: Innovation
➢ Technology Goal #7: Global Education and Citizenship

The design of this document assumes:

➢ The structure of the goals will provide a consistent approach including defined expectations.
➢ The plan will be reviewed and refined as needed, while maintaining district-wide goals.
➢ Each building will use the goals and expectations to create developmentally appropriate curriculum and instruction.

To achieve its mission and vision, and to provide for the future of its students, the Irvington Union Free School District will:

1. Provide students with a rigorous, comprehensive, enriched and diversified curricula that will prepare students to achieve their personal best, and will integrate technology in their learning.

2. Encourage innovation, creativity and risk taking to inspire a dynamic learning environment.

3. Foster the social and emotional growth of all students and promote a culture where students are active participants in society.

4. Support educators through targeted professional learning and opportunities for collaboration.

5. Strengthen local connections to and ownership of our schools.

6. Ensure the fiscal health of the district and provide for a high quality learning environment.

Theory of Action
If we provide students with rigorous, authentic learning experiences rooted in a comprehensive curriculum, then they will acquire the knowledge, skills and dispositions of successful 21st Century learners that will prepare them to thrive in a rapidly evolving global society.

Goal
In order to develop successful 21st Century learners that will be prepared to thrive in a rapidly evolving global society, the Irvington School District will:

- ➢ Provide students with rigorous authentic, learning experiences.
- ➢ Develop a comprehensive curriculum that includes:

  - · aligned and articulated content

  - · defined learning outcomes

  - · a balanced and systematic approach to assessment

  - · 21st Century skills and dispositions - problem solver, flexible thinker, collaborative learner, effective communicator, empathetic citizen, and self-reliant, reflective, creative risk-taker.

Theory of Action
If we value and foster the professional learning and growth of all members of our school community, then we will (increase ownership and) build our collective capacity to support student success.

Goal:
In order to (increase ownership of our school community and) build our collective capacity to support student success, the Irvington School District will:

- ➢ Engage all members of our school community in the process of continuous improvement through the articulation of District goals.

- ➢ Involve all members of the school community in learning and developing the knowledge and skills to support student success.

- ➢ Provide educators with professional learning designed to support student growth.

- ➢ Provide all staff with professional learning to develop the skills necessary to meet District needs.

Theory of Action

If we engage in a systematic approach of classroom observation, collecting data and offering feedback to one another, then evidence-based decisions will promote reflective practice, inform instructional design and guide professional learning in order to continuously improve/advance student achievement.

Goal

In order to continuously improve student achievement through professional learning, reflective practice, and instructional design, the District will:

➢ Engage all K-12 instructional leaders in various approaches to classroom visitation to collect evidence of teaching and learning.

➢ Utilize the Instructional Rounds protocol as a tool to assess our progress toward our relevant theories of action and in addressing instructional goals.

➢ Use the Framework for Teaching as the benchmark for instructional best practices.

➢ Use the Annual Professional Performance Review as one indicator of student performance and teacher effectiveness.

District Technology Teams
Two teams will exist to support the development and ongoing implementation and revision of the District Technology Plan:

Educational Technology Development Team (ETDT) – The mission of the ETDT is to develop a comprehensive technology plan to represent the current needs and expectations of the District K-12. This team of District staff will provide oversight of the plan through regular review and revision. This team will include administrators, teachers, and students and will be representative of grades K-12.

Plan Development
The team will develop this framework in detail including defining the application of standards and expectations for all students and teachers K-12 based on technology standards such as ISTE and New York State. Responsibilities of the team include (but are not limited to):

➢ Expansion of goals and specific expectations.
➢ Examining and change technology-related policies and procedures on a continual basis to address the needs of instruction.
➢ Meet monthly to collaborate on determining the technology needs of the District.
➢ Review recommendations made by ETAG concerning the implementation and use of existing and emerging technologies.
➢ Communicate policies and procedures to staff via grade level and department representative.
➢ Encourage and support innovative technology use and practices.
➢ Define professional development needs of the District.
➢ Assess the technology needs and concerns of staff.
➢ Encourage and support professional development and training for all employees.
➢ Explore and recommend the implementation of emerging technologies.
➢ Utilize researched-based information in all work related to instructional technology.
➢ Explore and apply to grant opportunities related to technology needs.
➢ Revise the District Technology Plan as needed.
➢ Design the mission, focus, and funding mechanisms for the creation of an innovation fund that will encourage students and faculty to demonstrate entrepreneurial thinking to expand the district's instruction and use of technology and expansion of STEM opportunities K-12.

Educational Technology Advisory Group (ETAG)
The mission of ETAG is to support the development and ongoing thinking and innovation for the IUFSD integration of technology. This team will meet as part of the Technology Think-Tank on a yearly basis at minimum. Participation will include some members of the ETDT and will also allow for fluidity in community participation.

ISTE Standards for Educators

1. Learner

Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning. Educators:

1a. Set professional learning goals to explore and apply pedagogical approaches made possible by technology and reflect on their effectiveness.
1b. Pursue professional interests by creating and actively participating in local and global learning networks.
1c. Stay current with research that supports improved student learning outcomes, including findings from the learning sciences.

2. Leader

Educators seek out opportunities for leadership to support student empowerment and success and to improve teaching and learning. Educators:

2a. Shape, advance and accelerate a shared vision for empowered learning with technology by engaging with education stakeholders.
2b. Advocate for equitable access to educational technology, digital content and learning opportunities to meet the diverse needs of all students.
2c. Model for colleagues the identification, exploration, evaluation, curation and adoption of new digital resources and tools for learning.

3. Citizen

Educators inspire students to positively contribute to and responsibly participate in the digital world. Educators:

3a. Create experiences for learners to make positive, socially responsible contributions and exhibit empathetic behavior online that build relationships and community.
3b. Establish a learning culture that promotes curiosity and critical examination of online resources and fosters digital literacy and media fluency.
3c. Mentor students in safe, legal and ethical practices with digital tools and the protection of intellectual rights and property.
3d. Model and promote management of personal data and digital identity and protect student data privacy.

4. Collaborator

Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems. Educators:

4a. Dedicate planning time to collaborate with colleagues to create authentic learning experiences that leverage technology.
4b. Collaborate and co-learn with students to discover and use new digital resources and diagnose and troubleshoot technology issues.
4c. Use collaborative tools to expand students' authentic, real-world learning experiences by

engaging virtually with experts, teams and students, locally and globally.

4d. Demonstrate cultural competency when communicating with students, parents and colleagues and interact with them as co-collaborators in student learning.

5. Designer

Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability. Educators:

5a. Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs.

5b. Design authentic learning activities that align with content area standards and use digital tools and resources to maximize active, deep learning.

5c. Explore and apply instructional design principles to create innovative digital learning environments that engage and support learning.

6. Facilitator

Educators facilitate learning with technology to support student achievement of the ISTE Standards for Students. Educators:

6a. Foster a culture where students take ownership of their learning goals and outcomes in both independent and group settings.

6b. Manage the use of technology and student learning strategies in digital platforms, virtual environments, hands-on makerspaces or in the field.

6c. Create learning opportunities that challenge students to use a design process and computational thinking to innovate and solve problems.

6d. Model and nurture creativity and creative expression to communicate ideas, knowledge or connections.

7. Analyst

Educators understand and use data to drive their instruction and support students in achieving their learning goals. Educators:

7a. Provide alternative ways for students to demonstrate competency and reflect on their learning using technology.

7b. Use technology to design and implement a variety of formative and summative assessments that accommodate learner needs, provide timely feedback to students and inform instruction.

7c. Use assessment data to guide progress and communicate with students, parents and education stakeholders to build student self-direction.

ISTE Standards for Students

1. Empowered Learner

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.

1a. Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.

1b. Students build networks and customize their learning environments in ways that support the learning process.

1c. Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.

1d. Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.

2. Digital Citizen

Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.

2a. Students cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.

2b. Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.

2c. Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.

2d. Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.

3. Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

3a. Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.

3b. Students evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.

3c. Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.

3d. Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

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.

4a. Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.

4b. Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.

4c. Students develop, test and refine prototypes as part of a cyclical design process.

4d. Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended

problems.

5. Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

5a. Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.

5b. Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.

5c. Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

5d. Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

6. Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

6a. Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

6b. Students create original works or responsibly repurpose or remix digital resources into new creations.

6c. Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.

6d. Students publish or present content that customizes the message and medium for their intended audiences.

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.

7a. Students use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.

7b. Students use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.

7c. Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

7d. Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.

Technology Goal #1: Flexible Student Centered Computing

All learners will have access to technology in an anytime, anywhere, one-to-one computing environment as appropriate and relevant to instructional goals.

Purpose:
A computing environment that, encourages creativity and innovation, facilitates communication and collaboration, supports research and access to digital content, increases critical thinking and problem solving opportunities, and promotes the proper use of information and technology. Learners will be encouraged and supported, to apply their personally owned technology in teaching and learning when appropriate.

Observable Teacher Behaviors:
➢ Teachers provide and encourage access to digital resources and technology tools.
➢ Teachers develop opportunities that encourage creative thinking and innovation through the use of a flexible student-centered one-one computing environment when constructing knowledge.
➢ Teachers facilitate communication and collaboration in virtual environments.
➢ Teachers regularly facilitate student access to digital content and multimedia.
➢ Teachers capitalize on digital resources to promote critical thinking and problem solving.
➢ Teachers model the proper use of information and technology.
➢ Teachers model, support, and encourage the appropriate use of personally owned devices in teaching and learning.

Observable Student Behaviors:
➢ Students access digital resources and technology tools when needed.
➢ Students are motivated to think and work creatively and to be innovative in constructing knowledge and solutions to problems.
➢ Students communicate and collaborate with peers in virtual environments.
➢ Students access digital content for the informational and research purposes.
➢ Students utilize technology to think critically and solve problems.
➢ Students demonstrate the proper use of information and technology to construct and demonstrate knowledge.
➢ Students use technology to deepen and extend their learning, including increased interaction amongst peers and teachers.

Action Steps and Timeline:
➢ Increase computing power to a one-to-one ratio.
➢ Implement laptops, tablet/touch devices, and/or handheld computing devices.
➢ Develop District policy with grade-level criteria to support and encourage BYOD.
➢ Educate staff, students and parents on the intent, concept, and policy of BYOD.
➢ Make devices available for students that do not have their own device.
➢ Maintain a network infrastructure, policies, and culture that support BYOD (ongoing).

Considerations: Teachers
● How do teachers evaluate virtual environments to use in the classroom?
● Teachers need access to sufficient tools for use in classroom

- Ensure that teachers understand that there is an expectation that students are able to name their own tools.
- Need for flexibility in choice of tools.

- Need for a set of expectations for student knowledge and responsibilities in using electronic devices.

- How do teachers reflect on their own thinking when their own knowledge of digital technology is still emerging (or limited)?
- How do we define proper? Do we mean ethical usage or do we mean physical handling of technology?
- What routines need to be set to ensure that students are clear about the expectations?
- How comfortable/fluent are teachers in supporting the use of and modeling the use of available technologies?

Considerations: Students
- Availability of resources in each classroom, as well as outside of classroom

- Students and teachers need to stay current with the types of digital resources and tech tools are available

- Access, opportunity and time - how are students provided these in both independent and collaborative settings?
- Students need to see examples of collaboration
- What constitutes ethical / appropriate behavior for collaboration on digital formats?
- How do we empower the students to navigate the concerns and questions that are a part of digital communication?
- Do the students have the critical thinking skills they need to use technology and solve problems?
- Are we using and do we have the proper technology?
- It is necessary to define "proper"...Do we mean proper in a legal/ethical sense?
- Need for student opportunity to inform peers/teachers of newly available technologies
- How do we engage students in developing evolving standards of appropriate and ethical use?
- Need to provide explicit models of ethical and acceptable use.

Resources:
➢ Desktops (some situations are best suited with a fixed desktop, such as a teacher work station to manage classroom sets of devices).
➢ Laptops. Tablet/touch devices.
➢ Chromebooks
➢ Online (e.g. cloud or network) collaboration and storage of files.
➢ District supported student email addresses.
➢ BYOD Policy
➢ Communication modes to educate staff, students, and parents about BYOD
➢ District provided devices readily available in classrooms.
➢ Adequate informational technology support for increased technology.
➢ Professional development associated with changes in practice (e.g. the implementation of tablet devices).

Exemplars/Evidence of Positive Impact on Student Achievement:
➢ Learning activities are enhanced by the availability of access to devices and information.
➢ Increased student and teacher motivation and engagement in learning process.
➢ Evidence of student empowerment (increased ownership of learning).
➢ Students and teachers engaged in teaching and learning.
➢ Technology used anytime, anywhere.

Evaluation:
➢ Survey type of feedback from stakeholders
➢ Statistics of device usage and network access.
➢ Feedback from students, parents, and teachers on frequency and effectiveness of BYOD
➢ Measurement of disciplinary referrals and actions related to BYOD

Observable Teacher Behavior	ISTE Standard
Teachers provide and encourage access to digital resources and technology tools.	3a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations 3b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation 4b. Address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources.
Teachers develop opportunities that encourage creative thinking and innovation through the use of a flexible student-centered one-one computing environment when constructing knowledge.	1a. Promote, support, and model creative and innovative thinking and inventiveness. 2b. 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.
Teachers facilitate communication and collaboration in virtual environments.	1d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments. 3b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
Teachers regularly facilitate student access to digital content and multimedia	2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity.
Teachers capitalize on digital resources to promote critical thinking and problem solving	1b. Engage students in exploring real-world issues and solving authentic problems using digital tools and resources. 1c. Promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking planning and creative processes.

	2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity 2b. 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
Teachers model the proper use of information and technology.	3d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning. 4a. Advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources. 4c. Promote and model digital etiquette and responsible social interactions related to the use of technology and information.
Teachers model, support, and encourage the appropriate use of personally owned devices in teaching and learning.	3d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate and use information resources to support learning. 4c. Promote and model digital etiquette and responsible social interactions related to use of technology and information.
Observable Student Behaviors	**ISTE Standard**
Students access digital resources and technology tools when needed.	3b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. 6a.Understand and use technology systems 6b.Select and use applications effectively and productively
Students are motivated to think and work creatively and to be innovative in constructing knowledge and solutions to problems.	1a. Apply existing knowledge to generate new ideas, products or processes. 4a. Identify and define authentic problems and significant questions for investigation. 4d. Use multiple processes and diverse perspectives to explore alternative solutions
Students communicate and collaborate with peers in virtual environments.	2a. Communicate information and publish with peers, experts, or others employing a variety of digital environments and media 5b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
Students access digital content for the informational and research purposes.	3b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. 3c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
Students utilize technology to think critically and solve problems.	4c. Collect and analyze data to identify solutions and/or make informed decisions

	4d. Use multiple processes and diverse perspectives to explore alternative solutions
Students demonstrate the proper use of information and technology to construct and demonstrate knowledge.	5a. Advocate and practice safe, legal, and responsible use of information and technology.
Students use technology to deepen and extend their learning, including increased interaction amongst peers and teachers.	2a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. 2b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats. 2d. Contribute to project teams to produce original works or solve problems. 4b. Plan and manage activities to develop a solution or complete a project. 4d. Use multiple processes and diverse perspectives to explore alternative solutions. 6b. Select and use applications effectively and productively. 1a. Apply existing knowledge to generate new ideas, products or processes. 5a. Advocate and practice safe, legal and responsible use of information and technology

Technology Goal #2: Interactive Multimedia Capable Peripherals

All learners will have access to technology that allows for consumption and interaction with a variety of information and multimedia.

Purpose:
Interactive peripherals enhance teaching and learning, facilitate a dynamic engagement with curriculum, and support learning for all students within the 21st century classroom.

Observable Teacher Behaviors:
- ➢ Teachers regularly deliver a variety of engaging information and multimedia content.
- ➢ Teachers enhance instruction and deepen learning through the integration of various forms of information and multimedia content.
- ➢ Teachers are empowered to facilitate student-centered and differentiated instruction related to best practices in teaching and learning.

Observable Student Behaviors:
- ➢ Students interact with digital information and multimedia regularly.
- ➢ Students engage in the dynamic presentation of content.
- ➢ Students enhance their communication skills through the use of digital information and multimedia content.
- ➢ Students are empowered to demonstrate their knowledge and process of understanding using digital information multimedia content.
- ➢ Students apply skills in using interactive multimedia to extend their knowledge.
- ➢ Students are inspired to construct knowledge and collaborate with their peers.

Resources:
- ➢ Document Cameras
- ➢ Data Projectors
- ➢ Speakers
- ➢ Tablets
- ➢ SMART Interactive Whiteboards
- ➢ Mobile video production studio
- ➢ Adequate informational technology support for increased technology
- ➢ On-going professional development for various levels of proficiency

Exemplars/Evidence of Positive Impact on Student Achievement:
- ➢ Instruction is enhanced with the integration of various forms of digital multimedia content.
- ➢ The amount of observable student engagement is increased.

Evaluation:
- ➢ Survey of teacher usage of multimedia related to the enhancement of instruction.

➢ Survey of student level of engagement related to consumption and/or creation of multimedia.
➢ Anecdotal evidence (classroom observations, interviews, artifacts of learning) of student use related to empowerment.

Technology Goal #3: Professional Development

Professional Development (PD) will be a top priority for the success of all learners. PD must be integrated within all content areas and grade levels. Also, PD must be ongoing due to the simultaneous learning of how to use technology, the integration of technology in instruction, and the continual emergence of new and improved technologies and practices. PD must be differentiated to address the needs, aptitudes, and styles of adult learners. It is expected that all staff members will seek out professional development within a technology structure that engages, encourages, and empowers all learners.

Purpose:
The purpose of professional development is to ensure the success of the integration of technology in teaching and learning. Technology's value is not merely in its inherent capabilities but in its impact, when applied appropriately, on teaching and learning. Also, the integration of technology helps to close the digital, generational, and cultural divides often evident between teachers and students. Closing this divide will enhance delivery and affirmation of the curriculum. Also, collaboration amongst colleagues in an ongoing PD structure inspires innovation, collaboration and collegiality.

Observable Teacher Behaviors:
➢ Teachers participate in professional learning that is based on grade level/content area standards AND technology standards (i.e. "integration").
➢ Teachers attend ongoing professional development, and apply and sustain skills/practices learned
➢ Teachers define a purpose and apply action research methodologies when exploring technologies.
➢ Teachers problem solve and troubleshoot technical issues.
➢ Teachers collaborate to construct knowledge and share ideas.
➢ Teachers use technology for inquiry-based learning to foster critical thinking.
➢ Teachers facilitate and encourage student learning and creativity.
➢ Teachers design and develop digital age learning experiences and assessments.
➢ Teachers model digital age work and learning.
➢ Teachers promote and model digital citizenship and responsibility.
➢ Teachers engage in professional growth and leadership

Observable Student Behaviors:
➢ Students demonstrate creativity and innovation using technology.
➢ Students collaborate and communicate using technology.
➢ Students conduct research and gather information using technology.
➢ Students engage in inquiry, project, and problem-based learning.
➢ Students model digital citizenship and the proper use of technology.

Action Steps and Timeline:
➢ PD is provided in a variety of ongoing ways that are relevant, hands-on, and convenient for all adult learners.
➢ PD support meets the ever-changing demands and needs of our adult learners.

- ➢ PD is supported by adequate technologies in order to allow staff to put new skills into practice.
- ➢ Standards and curriculum determine the focus for PD with sensitivity to individual growth.
- ➢ PD will be a primary focus of the Technology Coordinator, who will provide tiered support in an flexible manner to meet district and staff needs

Considerations: Teachers
- Teachers need to comprehend the ISTE Standards
- Create an environment that inspires teachers to take risks in applying their learning and supports ongoing development.
- Teachers need to take time to reflect and evaluate technology they have explored
- Define opportunities when teachers can share different technology sources they have explored internally and externally.
- Clarify what/which issues teachers need to be responsible for when it comes to problem solving and troubleshooting technical issues.
- Establish PLC's (District and Teacher driven).
- Develop action plans to accomplish goals.
- Seek out experts within and beyond our community.
- What do families and community members have in terms of digital tools and resources? How do we find out that information?
- How do we streamline systems to ensure consistency with shared information?
- Create opportunities for teachers to collaborate in content areas and across curricula/grade level.
- How do teachers and administrators empower students' to pursue individual their goals, self-evaluate?
- Define creative thinking and innovation.
- Provide examples and real life models- What does it look and sound like in the classroom?
- Make connections to instructional design and our essential questions-professional development around designing essential questions
- How do we make it dynamic for teachers as a resource? For example if you needed know can second graders do such and such- you could enter the question into web-based dynamic document to get answer
- How do we develop a culture that acknowledges and embraces digital citizenship? Connect to Habits of Mind
- Could there be a consideration for technology coaching?
- Teachers will need to know where they are in their own learning as well as the goal and expectations for integrating technology.

Considerations: Students
- How do we make a distinction for our starting points?
- How do we define creativity?
- How do you assess creative thinking?
- Need to consider opportunities both inside and outside of a classroom.
- What is the definition of research?
- Are we just asking for students to accumulate information or evaluate it to the task?

- How help students to determine the validity of a source?
- How do we work with students to determine the appropriateness of the material for their cognitive levels?
- Teachers and students need to understand the inquiry learning process
- Teachers and students need to know of available resources that can assist/guide the inquiry process
- Teacher need to help student foster the dispositions (e.g., flexible thinker, problem solver) Code of conduct and acceptable use of technology need a student driven component and an understanding that this will constantly evolving.
- Common definition of what is meant by safe and legal

Resources:
- ➢ Adequate instructional PD and technology support.
- ➢ Site-based instructional technology integration specialists.
- ➢ Full-time media specialists in each building.
- ➢ Lab classrooms for collegial observations.
- ➢ Building and district technology representation for ETAG and ETDT
- ➢ Contractual time dedicated to professional growth.

Exemplars/Evidence of Positive Impact on Student Achievement:
- ➢ Teaching and learning is enhanced through the use of technology.
- ➢ All learners are engaged in the teaching and learning process.
- ➢ All learners are empowered to take pride of ownership in the learning process.
- ➢ Student performance on standardized assessments and classroom assessments improves.

Evaluation:
- ➢ Needs assessments will be used to gauge PD needs of the District, schools, administrators, and grade levels/content area teachers.
- ➢ Rubrics will be used to assess the technology knowledge and level of integration in teaching and learning.

Observable Teacher Behavior	ISTE Standard
Teachers participate in professional learning that is based on grade level/content area standards AND technology standards (i.e. "integration"). **(Practice)**	5a. Participate in local and global learning communities to explore creative applications of technology to improve student learning.
Teachers attend ongoing professional development, and apply and sustain skills/practices learned. **(Practice)**	3a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations 5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning

Teachers define a purpose and apply action research methodologies when exploring technologies. **(Practice)**	2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity. 5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
Teachers problem solve and troubleshoot technical issues. **(Knowledge and Skill)**	3a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations. 3d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning.
Teachers collaborate to construct knowledge and share ideas. **(Practice)**	5a. Participate in local and global learning communities to explore creative applications of technology to improve student learning. 1d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments. 3b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation.
Teachers use technology for inquiry-based learning to foster critical thinking. **(Knowledge and Skill)**	1c. Promote student reflection using collaborative tools to reveal and clarify student conceptual understanding and thinking, planning, and creative process 2b. 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
Teachers encourage creative thinking and d when constructing knowledge **(Knowledge and Skill)**	1a. Promote, support, and model creative and innovative thinking and inventiveness
Teachers promote and model digital citizenship and responsibility. **(Practice)**	4a. Advocate, model and teach, safe, legal, and ethical use of digital information and technology including respect for copyright, intellectual property, and the appropriate documentation of sources. 4c. Promote and model digital etiquette and responsible social interactions related to the use of technology and information
Teachers engage in professional growth and leadership. **(Practice)**	5a. Participate in local and global learning communities to explore creative applications of technology to improve student learning. 5b. Exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others. 5c. Evaluate and reflect on current research and professional practice on a regular basis to make

	effective use of existing and emerging digital tools and resources in support of student learning. 5d. Contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community.
Observable Student Behaviors	**ISTE Standard**
Students demonstrate creativity and innovation using technology.	1a. Apply existing knowledge to generate new ideas, products, or processes 1b. Create original works as a means of personal or group expression 1c. Use models and simulations to explore complex systems and issues 1d. Identify trends and forecast possibilities
Students conduct research and gather information using technology.	3b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
Students engage in inquiry, project, and problem-based learning.	4a. Identify and define authentic problems and significant questions for investigation 4b.Plan and manage activities to develop a solution or complete a project
Students model digital citizenship and the proper use of technology.	5a. Advocate and practice safe, legal, and responsible use of information and technology

Technology Goal #4: Electronic Resources

Electronic resources and tools must be readily available to support contemporary teaching and learning environment.

Purpose:
As the widespread use of the Internet has informed and connected people, the availability of electronic resources will support the collaborative component of teaching and learning. Electronic resources must be readily available for all learners to access the increasing wealth of on-demand information. Also, technology tools for the creation of electronic resources must be readily available for all learners. Creating and sharing resources fosters a collaborative learning environment.

Observable Teacher Behaviors:
➢ Teachers regularly access, create, and manage digital resources for teaching and learning.
➢ Teachers participate in a collaborative environment with colleagues across the District, county, state, nation, etc.
➢ Teachers increasingly rely on digital resources to support planning, instruction, professional development, and curriculum design.

Observable Student Behaviors:
➢ Students access electronic resources for information and research at anytime, from anywhere.
➢ Students store and retrieve the information they have gathered while researching (e.g. cloud, network, or digital locker storage).
➢ Students access and interact with digital books, textbooks, and class resources (provided by the District and/or created by learners).
➢ Students use digital tools to build electronic knowledge bases that are accessible at any time, from anywhere.

Action Steps and Timeline:
➢ Provide and support published and/or intra-District created electronic resources (ongoing).
➢ Provide and support digital books, textbooks, and resources (ongoing).
➢ Provide and support electronic tools for the creation of electronic resources (ongoing).

Considerations: Teachers
● Provide defined learning in the areas of creation and management of digital resources.
● How does the district define, facilitate, and encourage collaboration to develop shared resources?
● Teachers will need a variety of 21st century resources (hardware/software/digital) and training supported by the district.

Considerations: Students
- Provide an organized way of accessing information and resources for all students.
- How can we bridge the gap between student-used programs and methods to submit to the teacher or access in school to minimize loss of information and time?
    - Do we have to "force" students to comply to the Google platform (vs. apple) because that is what technology/teachers can access (does this take away the opportunity to select and be innovative)
    - Students will need to troubleshoot - whose responsibility is it?
- How do we assure that the materials (textbooks) being accessed are available at differentiated levels while still allowing for students to interact in the same course/program?
- Students need to be educated on the ethical aspect of using electronic resources.

Resources:
- ➢ Subscription-based databases.
- ➢ Electronic books, textbooks, and resources specific to grade-levels and content areas.
- ➢ Video sharing site (e.g. You Tube).
- ➢ Atlas Rubicon (i.e. an online collaborative curriculum database).
- ➢ Tools allowing for the creation and publication of resources (e.g. Moodle, Wikis).

Exemplars/Evidence of Positive Impact on Student Achievement:
- ➢ Student performance on assessments, student reflection on using digital resources, and anytime, anywhere access.
- ➢ Student produced work.

Evaluation:
- ➢ Gathering feedback on availability, ease of use, and impact on student achievement.
- ➢ Monitoring level of tools used in the creating of resources.

Observable Teacher Behavior	ISTE Standard
Teachers regularly access, create, and manage digital resources for teaching and learning.	2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity. 2b. 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. 2c. Customize and personalize learning activities to address students' diverse learning style, working strategies, and abilities using digital tools and resources.
Teachers participate in a collaborative environment with colleagues across the District, county, state, nation, etc.	1d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments 5a. Participate in local and global learning communities to explore creative application of technology to improve student learning.

	5b. Contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community
Teachers increasingly rely on digital resources to support planning, instruction, professional development, and curriculum design	2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity 3b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
Observable Student Behaviors	**ISTE Standard**
Students access electronic resources for information and research at any time, from anywhere.	3c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks 6b. Select and use applications effectively and productively
Students store and retrieve the information they have gathered while researching (e.g. cloud, network, or digital locker storage).	6a. Understand and use technology systems 6b. Select and use applications effectively and productively 6c. Troubleshoot systems and applications
Students access and interact with digital books, textbooks, and class resources (provided by the District and/or created by learners).	2a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media. 3b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. 6a. Understand and use technology systems
Students use digital tools to build electronic knowledge bases that are accessible at anytime, from anywhere.	3b. Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media 3c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks 6b. Select and use applications effectively and productively

Technology Goal #5: Curriculum Integration

The International Society for Technology in Education National Educational Technology Standards (ISTE NETS) and the New York State Educational Technology Standards will be integrated into all K-12 curricula. Instructional stakeholders will contribute to developing and updating technology-integrated curriculum maps and resources. Teachers will regularly integrate technology as defined within their respective curriculum.

Purpose:
- ➢ To provide students, parents, and teachers with clearly defined learning goals in grade level and content area curricula.
- ➢ To promote and support contributions to curriculum due to the ongoing growth and emergence of viable technologies.
- ➢ To efficiently and effectively support teachers in integrating technology by focusing on common learning goals.

Observable Teacher Behaviors:
- ➢ Teachers contribute to their respective curriculum maps to maintain technology integration relevancy.
- ➢ Teachers use technological resources and tools to provide effective instruction.
- ➢ Teachers' instruction demonstrates best pedagogical practices related to technology integration.
- ➢ Teachers integrate content, pedagogy, and technology into their instructional design
- ➢ Teachers model the use of appropriate technology for a specified task or problem.
- ➢ Teachers share and collaborate with colleagues to improve technology integration and teaching and learning.

Observable Student Behaviors:
- ➢ Students articulate the instructional purpose of using technology in learning (i.e. as opposed to the common idea of technology being a novelty or means for entertainment).
- ➢ Students use technology in productive ways to improve learning.

Action Steps and Timeline:
District
- ᐧ Support professional development so all technology goals can be met.
- ᐧ Ensure the availability and accessibility of technological tools.
- ᐧ Acquire instructional resources that encompass instructional technology needs of students and teachers.
- ᐧ Provide training for teachers to access and contribute to digital curriculum resources.
- ᐧ Develop and/or revise curriculum maps for all grade level and content areas to ensure common "road maps" for teaching and professional development purposes.

Building
- ᐧ Incorporate a technology component in their yearly goals.
- ᐧ Reflect on lesson plans and instruction to ensure that instructional technology is integrated.
- ᐧ Increase opportunities for STEM based curriculum and instruction.
- ᐧ Develop technology based courses to enrich student programs

Considerations: Teachers
- Help for teachers with curriculum mapping incorporating a technology lens
- What do we mean by relevancy? Relevant to the students' lives? Relevant as it pertains to enhancing a lesson or area of curriculum? Relevant to larger world?
- What constitutes a technological resource? Can there be a list?
- As new technologies are developed and released, how are they shared? Who is responsible for imparting new technology knowledge? Department chairs? Team leaders? Administrators?
- Clarity of desired student outcomes for technology integration is important
- What is the value added by utilizing technology in any particular lesson?
- Not teach the tech skills, teach the content and use the technology
- What are appropriate content-specific technologies?
- How do teachers stay up-to-date and what is up-to-date?
- Teachers will need to know about emerging digital tools and how to use them
- Identify teachers who can model technology
- How, when, and where would the collaboration take place? Does it need to be specified?
- There can be a benefit in teachers learning how to collaborate in ways that are asynchronous and not always face-to-face
- How do we encourage new collaborations? Inter, intra grade level & departments?
- What are the expectations for sharing?
- Teachers need access to a variety of technological tools i.e. websites, headphones, recording devices, etc.
- Teachers need to be given the time to develop experiences for students and the understanding about technology that will give students the opportunity to develop the thinking skills that promote learning. How can we do that?
- Teachers need to be flexible in their curriculum in the way the content is taught

Considerations: Students
- Students should understand why they are using an app--not random way to spend time.
- The instructional technologies in different subject areas can look very different (pedometers, probes, art & music technologies)
- Students need the freedom to explore technological opportunities and not be limited by the districts approved/prescribed technology in an artificial way.
- To improve learning, teachers need clearly articulated critical thinking goals; and students need to understand what they are in order to reproduce/model them.
- Students need to define the purpose of the technology they are using to pursue their learning;
- Inquiry based learning is essential to achieve the above.
- Students need to be flexible in the way the content is being taught and they need to be flexible thinkers overall

Resources:
- ➢ Online repository for curriculum.
- ➢ Teacher access to digital resources, including training on how to access resources.
- ➢ Mandated time for teachers to review and collaborate on curriculum.
- ➢ Training and support for teacher-leaders in curriculum development.

Exemplars/Evidence of Positive Impact on Student Achievement:
➢ The integration of relevant instructional technology is explicitly stated in curriculum maps.
➢ Students and teachers are using instructional technology within their teaching and learning.
➢ Curriculum will be updated on a frequent (ideally annual) basis and available electronically.
➢ Students will express their understanding of content through digital media.

Evaluation:
➢ Review of curriculum maps.
➢ Teacher reflection on performance/goals (embedded within evaluation process).
➢ Meeting records from curriculum development/review sessions.
➢ Student reporting on integration of curriculum within classroom.

Observable Teacher Behavior	ISTE Standard
Teachers contribute to their respective curriculum maps to maintain technology integration relevancy.	2a. Design or adapt relevant experiences that incorporate digital tools and resources to promote student learning and creativity 5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
Teachers use technological resources and tools to provide effective instruction.	2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity. 3a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations.
Teachers' instruction demonstrates best pedagogical practices related to technology integration.	1b. Students in exploring real-world issues and solving authentic problems using digital tools and resources 5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
Teachers integrate content, pedagogy, and technology into their instructional design.	2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity 2b. 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
Teachers model the use of appropriate technology for a specified task or problem.	3d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate,

	and use information resources to support research and learning
	5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
Teachers share and collaborate with colleagues to improve technology integration and teaching and learning.	5a. Participate in local and global learning communities to explore creative applications of technology to improve student learning. 5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools in support of student learning
Observable Student Behaviors	**ISTE Standard**
Students articulate the instructional purpose of using technology in learning (i.e. as opposed to the common idea of technology being a novelty or means for entertainment).	1a. Apply existing knowledge to generate new ideas, products, or process 4b. Plan and manage activities to develop a solution or complete a project
Students use technology in productive ways to improve learning	1a. Apply existing knowledge to generate new ideas, products, or processes 1d. Identify trends and forecast possibilities 4a. Identify and define authentic problems and significant questions for investigation 4c. Collect and analyze data to identify solutions and/or make informed decisions

Technology Goal #6: Innovation

Innovation in the best practices of technology integration will be supported and encouraged.

Purpose:
Support and encourage innovative practices of technology integration and exploration:
- ➢ Improving instructional practices.
- ➢ Continually expanding opportunities for students.
- ➢ Collegial learning across the District.
- ➢ Creating opportunities for action research.
- ➢ Providing student-driven learning experiences.

Observable Teacher Behaviors:
- ➢ Teachers explore and pioneer approaches, tools and methods to improve teaching and learning.
- ➢ Teachers' instructional design includes technology and reflects expectations of the dispositions and habits of mind necessary to support innovation.
- ➢ Teachers provide students with choice and opportunities to construct their own knowledge.
- ➢ Teachers engage in learning and action research around new technologies and share and reflect on "successes and failures" with colleagues.

Observable Student Behavior:
- ➢ Students seek out new methods of critical thinking and expression of learning.
- ➢ Students contribute to the exploration, pioneering, and sharing of new approaches, tools, and methods for learning.
- ➢ Students participate in the collective inquiry and sharing of knowledge
- ➢ Students engage in action research using a variety of technologies.

Action Steps and Timeline:
- ➢ Develop an approach for the ongoing support of innovative practices through identified budget resources.
- ➢ Develop and support a network for innovative practices to be cataloged and shared.
- ➢ Provide a formal learning and sharing opportunity.

Considerations: Teachers
- How do we educate ourselves about what resources are available to educators?
- How do we prepare to build capacity with new and emerging tools?
- How do we measure exploration?
- If we believe that there is important growth and learning in "failure"/struggle then, If we fail is it still an effective use of digital tools and resources?
  - o What are we failing at?
  - o What do we define as effective use?
- Develop the structure to provide the time and opportunity for educators to be reflective on process
- Where in our curriculum designs/units do we already incorporate innovations?

- How do we connect our current curriculum and the CCLS to allow students to explore their own individual curiosities?
- What value do we place on common learning experiences?
- Action Research needs to be defined

Considerations: Students
- Students demonstrate understanding of multiple perspectives so that they can investigate appropriate sources and resources to help them expand/deepen their thinking.
- How do we ensure student access to a wider range of hardware, digital sources/resources?
- Students need a way to access others' knowledge and share their own, and synthesize this knowledge and apply it in new ways.
- Students need a venue in which they can share their approaches, tools, and methods for learning.
- How do students gain confidence in exploring, pioneering, and sharing? How do students learn to feel comfortable with failure?
- Teachers will need to foster students' independence and interdependence to choose and follow a path of inquiry and share their journey with others.

Resources:
➢ Per pupil or per staff member allocation of funds (may be allocated to grade levels, departments, or buildings) for piloting emerging technologies and/or attending conferences.
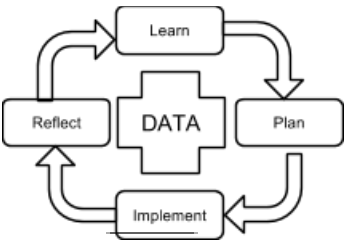➢ District level support for developing innovative practices.

Exemplars/Evidence of Positive Impact on Student Achievement:
➢ Teaching is enhanced through the integration of innovative practices.
➢ Student engagement correlates to an increase in academic achievement.
➢ Teachers and students are empowered to apply technology in innovative ways to solve problems.
➢ Growth will be seen across the year in new, unpredictable ways.
➢ Learning and growth will happen in ways that they had not previously.
➢ This growth could be, and not limited to, students learning, teaching techniques, devices, culture, collaboration, PLC/T productivity, sharing, and wider integration of resources and methods that support student success.

Evaluation:
Innovative practices will be evaluated for the impact on enhancing instruction, engaging students, and empowering students to take pride of ownership in learning.

Observable Teacher Behavior	ISTE Standard
Teachers explore and pioneer approaches, tools and methods to improve teaching and learning.	1a. Promote, support, and model creative and innovative thinking and inventiveness 5a. Participate in local and global learning communities to explore creative applications of technology to improve student learning

	5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
Teachers' instructional design includes technology and reflects expectations of the dispositions and habits of mind necessary to support innovation	2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote students learning and creativity 2b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own learning, and assessing their own progress. 5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning.
Teachers provide students with choice and opportunities to construct their own knowledge (may not be part of observable teacher behavior)	2c. Customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources.
Teachers engage in learning and action research around new technologies and share and reflect on "successes and failures" with colleagues. 	5a. Participate in local and global learning communities to explore creative applications of technology to improve student learning 5b. Contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community 5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning 5d. Contribute to the effectiveness, vitality, and self-renewal of the teaching
Observable Student Behaviors	**ISTE Standard**
Students seek out new methods of critical thinking and expression of learning.	4b. Use multiple processes and diverse perspectives to explore alternative solutions. 6d. Transfer current knowledge to learning of new technologies.
Students contribute to the exploration, pioneering, and sharing of new approaches, tools, and methods for learning.	1a. Apply existing knowledge to generate new ideas, products, or processes 2a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
Students participate in the collective inquiry/action research and sharing of knowledge.	4d. Use multiple processes and diverse perspectives to explore alternative solutions.

Technology Goal #7: Global Education and Citizenship

Teachers and students will use technology to promote engagement in the global society. Global citizenship will be an underlying focus throughout all curriculum areas in an effort to prepare students for engaged living in a culturally diverse and rapidly changing world.

Purpose:
Enabling young people to participate in shaping a better-shared future for the world is at the heart of global education. An emphasis on the unity and interdependence of human society can support the development of a sense of self and appreciation of cultural diversity. Technology can facilitate the opportunities for teachers and students to engage across continents and with people of all cultures and backgrounds.

Observable Teacher Behaviors:
➢ Teachers engage students in a wider view of the world, extending student learning about how the world works and facilitate a change in learning, thinking and teaching to broaden perspectives.
➢ Teachers design instruction that requires students to evaluate how the media allows the reader, the viewer or the listener to make up their own mind. In order to build knowledge instruction and questions
➢ Teachers provide opportunities for students to identify and explore the ways that individuals and communities increasingly depend on each other through the use of technology.

Observable Student Behaviors:
➢ Students engage with differing media perspectives, to learn and develop understandings of underlying issues, assumptions and contexts presented through media.
➢ Students engage in a wider view of the world, extending student learning about how the world works and facilitate a change in learning, thinking and teaching through engagement with people within and beyond their own community.
➢ Students recognize and demonstrate ways to participate as a global citizen.
➢ Students are actively engaged in digital learning with individuals and members within and across communities, both global and local.
➢ Students are invested in their own learning, and in developing and presenting their own world view.

Action Steps and Timeline:
➢ Create systems and structures that support engagement within and across communities and support an online engagement (e.g. web-cameras in all classrooms).
➢ Develop professional learning opportunities for teachers to develop collegial relationships with teachers beyond our local community.
➢ Provide student and community programs to create responsible digital citizens and to increase awareness of digitally risky behaviors.

Considerations: Teachers
- Time to develop the lesson/unit w/ other educators (here and abroad)
- Time zones when trying to communicate directly
- Teachers need to be prepared for the emergence of bias/push back
- Teachers need to be aware of their own bias
- Teachers providing a structure/establish norms when engaging students in collective problem solving
- Teachers need to know what contemporary tools and resources are available
- Teachers need to provide a balanced view of topics in an unbiased fashion
- Teachers will have the freedom to incorporate media that is appropriate and meaningful for their level
- Teachers need to have access to virtual environments and knowledge about how to locate virtual communities
- Teachers need to be familiar with current events
- Teachers engage students in exploring real-world issues
- There are websites such as Common Sense Media and Twiducate to build students' knowledge of Global Education and Citizenship
- Teachers explore organizations and resources that support real world issues- ex. Unicef
- Are there district protocols that need to be followed?
- Defining what it means to depend on one another- interdependency using technology
- What does this look like? How do we provide a model for teachers to support implementation? Identify classrooms or subject areas that are implementing this so we can create a model cohort and build out from there.

Considerations: Students
- Need to explicitly teach students to critically engage with and analyze information.
    - This happens in various forms across grade levels -- concentric circles of broadening perspective.
    - Where do you (students & teachers) get information?
    - Modeled - you need to live it
    - Need to name the dispositions
- Students and teachers actively seek out the "missing voice".
- How do these apply to content areas that don't traditionally deal in "world issues"?
- Students will be engaging in:
    - Virtual classroom
    - Skyping
    - Remote collaboration
    - Working within a cloud
    - Communicating with experts
    - Collaborating with classrooms or individuals in other places
    - Flexible learning
- Dovetail with character education learning in the district.
- Students need to identify other points of view in the virtual environment.

- How do we ensure that topics and information are developmentally appropriate when we open up our classrooms to the world?
- What does it mean to be a global citizen? Need to engage in conversation about this; common understanding
- Teachers utilize students' personal experiences - (inventory of students global experiences)- to help develop classroom experiences

Resources:
➢ Technology to support web-based communications (i.e. Skype, webcams).
➢ Subscriptions to online classroom opportunities.

Exemplars/Evidence of Positive Impact on Student Achievement:
➢ Increased knowledge demonstrated through student work reflecting global understanding and citizenship.
➢ Increased occurrences of students demonstrating open-mindedness leading to new thinking about the world and a predisposition to take action for change.

Evaluation:
➢ Teacher and student feedback.

Observable Teacher Behavior	ISTE Standard
Teachers engage students in a wider view of the world, extending student learning about how the world works and facilitate a change in learning, thinking and teaching to broaden perspectives.	4d. Develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital age communication with collaboration tools
Teachers design instruction that requires students to evaluate how the media allows the reader, the viewer or the listener to make up their own mind. In order to build knowledge instruction and questions	1b. Engage students in exploring real-world issues and solving authentic problems using digital tools and resources 2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity.
Teachers provide opportunities for students to identify and explore the ways that individuals and communities increasingly depend on each other through the use of technology	1b. Engage students in exploring real world issues and solving authentic problems using digital tools and resources 4d. Develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital age communication and collaboration tools
Observable Student Behaviors	**ISTE Standard**
Students engage with differing media perspectives, to learn and develop understandings of underlying issues, assumptions and contexts presented through media.	3b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

	3c: Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
Students engage in a wider view of the world, extending student learning about how the world works and facilitate a change in learning, thinking and teaching through engagement with people within and beyond their own community.	2b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats 2C. Develop cultural understanding and global awareness by engaging with learners of other cultures
Students recognize and demonstrate ways to participate as a global citizen.	2c.Develop cultural understanding and global awareness by engaging with learners of other cultures 5d. Exhibit leadership for digital citizenship.
Students are actively engaged in digital learning with individuals and members within and across communities, both global and local.	2c. Develop cultural understanding and global awareness by engaging with learners of other cultures 2d. Contribute to project teams to produce original works or solve problems 4d. Use multiple processes and diverse perspectives to explore alternative solutions
Students are invested in their own learning, and in developing and presenting their own worldview.	1b. Create original works as a means of personal or group expression 5b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity 5c. Demonstrate personal responsibility for lifelong learning

Thank you to all the teachers and administrators who participated in our week long Technology Summit. It is through your good thinking and collective work that we have been able to develop our framework into a plan that defines how teaching and learning needs to be reflected in our classrooms if we are to reach our technology goals.

Worth Noting: Goal # 5 was combined with Goal #1 as a result of the thinking of the group that it is not its own goal, but rather a subset of Goal #1. Goal #2 has a strong focus on hardware and will be further developed through the work of the ETDT. Goal # 5 became Curriculum Integration and Goal # 6 Innovation

Technology Goal #1: Mobile Student Centered Computing	Technology Goal #2: Interactive Multimedia Capable Peripherals	Technology Goal #3: Professional Development	Technology Goal #4: Electronic Resources
Meg Benedetto	Eli Byers	Kate Becker	Karen Acrish
Karen Bodnar	Diana T. Cassidy	Joyce Chapnick	Danielle Almeida
Gwenn Carney	Gwenn E. Carney	Dave Cohen	Susan Buck
Mike Cerniglia	Patsy Costabile	Allyson Daley	Betty Carle
Jen DeLisi-Hall	Stephen Digiovanni	Stephen DiGiovanni	Gwenn Carney
Alyssa Fisher	Joann Molloy	Anita Ferreri	Dave Cohen
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Amy Jones	Jacqueline Richardson	Merle Jackson	Jessica Doherty
Carleen Julian	Christina Rosenblatt	Deanna Kahl	Kate Falcon
Bernie Keating	Christine Rosner	Carol LaBella	Alyssa Fisher
Marianne Kennedy	Susan Wallace	Randy Lichtenwalner	Janet Gillespie
Deb Mariniello	David Whitehead	Crystal Miraglia	James Groven
Christina Mitchell	Nancy Woeckener	Artie McCormack	Carleen Julian
Joann Molloy		Elizabeth Morgan	Danielle Lee
Scott Palermo		Luann Ricciardi	Liza Leite
Christine Rosner		Christine Rosner	Randy Lichtenwalner
David Sottile		Nina Rossi	Ilija Markic
Georgia Tasigiannis-James		Rebeca Sampelayo	Artie McCormack
		Susan Wallace	Crystal Miraglia
		Diane Watkinson	Joann Molloy
		David Whitehead	Joanna Morabito
		Geri Winteroth	Cathy Patricola
			Linda Palumbo
			Gregg Pernick
			Jackie Richardson
			Christina Rosenblatt
			David Sottile

Technology Goal #5: Bring Your Own Technology (BYOD)	Technology Goal #6: Curriculum Integration	Technology Goal #7: Global Education & Citizenship	Technology Goal #8: Innovation
Chris Barry	Danielle Almeida	Patrizia Barbagallo	Karen Acrish
Tina Buzzetto	Meg Benedetto	Meg Benedetto	Scott Andrasko
Julie Cangelosi	Kari Carlson	Amy Blackwell	Eli Byers
Joyce Chapnick	Joyce Chapnick	Susan Buck	Gwenn Carney
Dave Cohen	Diana Cassidy	Eli Byers	Danielle Castellano
Pat Costabile	Allyson Daley	Joan Burns	Joyce Chapnick
Francine DiNapoli	Corinne Daniels	Joyce Chapnick	Dave Cohen
Anita Ferreri	Jen DeLisi-Hall	Jen DeLisi-Hall	Nicole Cristofaro
Cristina Fiol	Jessica Doherty	Allyson Daley	Pat Costabile
Gail Krieger	Jess Knoblich	Pat DiBenedetto	Stephen DiGiovanni
Liza Leite	Amy Ma	Tiffany Flynn	Kathy Deuel
Tricia Lyson	Deb Mariniello	MaryEllen Fortini	Michelle Griffin
Elizabeth Morgan	Jen McArdle	Courtney Geelan	Andrea Grundstein
Marcus Oates	Christina Mitchell	Samantha Gold	Jessica Hughes
Jeff Rieck	Nadia Parikka	Carol LaBella	Gail Krieger
Nina Rossi	Jackie Richardson	Laura Lane	Caroline Lehoczky
Rey Serrano	Christina Rosenblatt	Dina Lenhardt	Randy Lichtenwalner
David Sottile	Christine Rosner	Marianne Kennedy	Amy Ma
Allyson Tempest	Nicole Sharaofsky	Deb Mariniello	Jen McArdle
Katherine Tripeau	Laura Shaw	Alison Meiseles	Joanna Morabito
Jason Williams	Susan Wallace	Scott Palermo	Linda Palumbo
	Keri Vaquero	Amy Panitz	Julie Rostkowski
	Michelle Sensi	Rebeca Sampelayo	Rebeca Sampelayo
		Deborah Scofield	Izabela Swiecka
		Allyson Tempest	Diana Tomaselli
		Melaynne Vestal	Nancy Woeckener
		Susan Wallace	
		Nancy Woeckener	

Revision of this Plan: There will be an annual review of this plan to make updates as needed beginning with the 2018-2019 school year.