



Vision Statement: Innovative thinkers effectively use technology and maximize the capacity of teaching and learning.

- · Establish adaptive and interactive inquiry based learning
- · Give learners a voice and choice in attaining their learning goals
- · Provide personalized and authentic learning opportunities
- Redefine collaboration, communication, critical thinking and creativity
- · To be a productive, global digital citizen

ISTE Standards	Indicators	Student Expectations	Teacher Practices	Resources
Empowered Learner I use technology to set goals, work toward achieving them and demonstrate my learning.	1.a. Students articulate personal learning goals, select and manage appropriate technologies to achieve them, and reflect on their successes and areas of improvement in working toward their goals. 1.b. Students identify and develop online networks within school policy, and customize their learning environments in ways that support their learning, in collaboration with an educator. 1.c. Students actively seek performance feedback from people, including teachers, and from functionalities embedded in digital tools to improve their learning process, and they select technology to demonstrate their learning in a variety of ways. 1.d. Students are able to navigate a variety of technologies and transfer	 I can develop and manage personal learning goals, develop the strategies to use technology to achieve them, and reflect on the process and the outcomes. I can use my knowledge to create a library of resources and online networks to customize my online environment and support my learning. I can use technology to present my knowledge to the classroom educator and classroom peers. I can present my learning in a variety of ways that engage my educator and peers to gain feedback and promote collaboration. I can use what I already know about technology to aid in discovering new tools to support and progress my learning. I can use my prior and new knowledge to assist, support, and instruct other classmates to gain new skills. 	 Teach innovative technologies and how to set personal goals while developing an organized plan to reach them. Provide opportunities for students to evaluate their learning and set personal goals in various areas. Provide opportunities for students to present learning and seek feedback both from people and through use of digital tools. 	ISTE Standards (International Society for Technology in Education) Prezi PPT Nearpod Office 365 Google Slides/docs Recap Kahoot Schoology Canva TinkerCad Appear.in

	their knowledge and skills to learn how to use new technologies.			
Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal and ethical.	 2.a. Students manage their digital identities and reputations within school policy, including demonstrating an understanding of how digital actions are never fully erasable. 2.b. Students demonstrate and advocate for positive, safe, legal and ethical habits when using technology and when interacting with others online. 2.c. Students demonstrate and advocate for an understanding of intellectual property with both print and digital media—including copyright, permission and fair use—by creating a variety of media products that include appropriate citation and attribution elements. 2.d. Students demonstrate an understanding of what personal data is and how to keep it private and secure, including the awareness of terms such as encryption, HTTPS, password, cookies and computer viruses; they also understand the limitations of data management and how 	 I can show an understanding of how my online presence and online actions affect myself and others and that decisions that are made online never go away. I can practice and promote safe, legal, and ethical behavior when using technology and interacting online. I can demonstrate and promote a respect for others' work by giving credit or citing sources. I can demonstrate an understanding of what is personal data and how to keep it safe and private. 	 Teach how online identity plays a role in the digital world and how their decision affect others. Teach and encourage safe, legal, and ethical online behavior and provide a structure for students to encourage each other to do the same. Teach and encourage respect for intellectual property with both print and digital media and how to cite media sources. Teach how to keep information shared online private. 	Common Sense Media Choose applicable lessons from the Common Sense curriculum EasyBib Citation Machine Global Digital Citizenship CyberWise (DC Games)

	data-collection technologies work.			
Knowledge Constructor I critically select, evaluate and synthesize digital resources into a collection that reflects my learning and builds my knowledge.	3.a. Students demonstrate and practice the ability to effectively utilize research strategies to locate appropriate digital resources in support of their learning. 3.b. Students practice and demonstrate the ability to evaluate resources for accuracy, perspective, credibility and relevance. 3.c. Students locate and collect resources from a variety of sources and organize assets into collections for a wide range of projects and purposes. 3.d. Students explore real-world issues and problems and actively pursue an understanding of them and solutions for them.	 I can utilize research techniques to locate appropriate digital resources specific to my learning goal. I can evaluate primary and textual sources for accuracy, perspective, credibility and relevance. I can make meaningful connections between resources by organizing my information successfully. I can explore real-world issues and problems and pursue an understanding of them and solutions for them 	 Teach research techniques and tools to reflect on learning and building knowledge. Provide opportunities for students to think critically and reflect on their learning. Provide students the opportunity to explore and problem solve real-world issues to find solutions. 	Khan Academy Spelling City (1-6) Discovery Ed Streaming KnightCite BibMe DestinyQuest Listenwise CNN Student News Time for Kids

Innovative Designer

I solve problems by creating new and imaginative solutions using a variety of digital tools.

- **4.a.** Students engage in a design process and employ it to generate ideas, create innovative products or solve authentic problems.
- **4.b.** Students select and use digital tools to support a design process and expand their understanding to identify constraints and trade-offs and to weigh risks.
- **4.c.** Students engage in a design process to develop, test and revise prototypes, embracing the cyclical process of trial and error and understanding problems or setbacks as potential opportunities for improvement.
- **4.d.** Students demonstrate an ability to persevere and handle greater ambiguity as they work to solve open-ended problems.

- I can generate ideas, consider solutions, create a plan to solve a problem, and create an innovative product to share with others.
- I can use a variety of tools to plan and manage a design process.
- I can use trial and error to reflect on my design process.
- I can demonstrate perseverance when working with open-ended problems.

- Teach students multiple ways for solving problems using various digital tools.
- Provide opportunities for students to explore digital tools to solve problems using their imagination.
- Provide opportunities for students to experience trial and error.

Current Science curriculum-STEM projects.

STEM Resources

Next Gen Science Classroom Sample Tasks

Kids Think Design

The Engineering Place

Try Engineering

PBS Engineering Games

Google Sketchup

TinkerCad

Computational Thinker

I identify authentic problems, work with data and use a step-by-step process to automate solutions.

- **5.a.** With guidance from an educator, students identify a problem and select appropriate technology tools to explore and find solutions.
- **5.b.** With guidance from an educator, students analyze age-appropriate data and look for similarities in order to identify patterns and categories.
- I can select a specific technology to assist me in exploring or solving problems.
- I can select an effective technology to represent data.
- I can identify key information by breaking down problems into smaller parts, and proposing a solution.
- I can explore concepts related to automation, patterns, and

- Teach strategies for creating a step-by-step process for solving authentic problems.
- Provide opportunities for students to solve authentic problems using a process.
- Provide opportunities for students to use technology to create graphic representations

Khan Academy

Excel or Sheets

Online Tools for Creating Graphs or Charts

https://plot.ly/create/

https://www.meta-chart.com/

Virtual Manipulatives

	 5.c. With guidance from an educator, students break a problem into parts and identify ways to solve the problem. 5.d. Students understand how technology is used to make a task easier or repeatable and can identify real-world examples. 	 algorithmic thinking. I can interpret and analyze data to draw conclusions. I can use technology to make a task easier to accomplish and apply to the real-world. 	of data and interpret the data. • Provide opportunities for students to think about the algorithms necessary to complete tasks.	National Lab of Virtual Manipulatives NCTM Interactives
Creative Communicator I communicate effectively and express myself creatively using different tools, styles, formats and digital media.	 6.a. Students recognize and utilize the features and functions of a variety of creation or communication tools. 6.b. Student create original works and learn strategies for remixing or repurposing to create new artifacts. 6.c. Students create digital artifacts to communicate ideas visually and graphically. 6.d. Students learn about audience and consider their expected audience when creating digital artifacts and presentations. Artifact:: print, media, object 	 I can successfully use a variety of creation and communication tools by exploring their features and functions. I can repurpose or recreate an artifact. I can create a digital artifact to communicate my ideas visually. I can create a digital artifact or presentation for a specific audience. 	 Teach tools for digital communication through exploring their features and functions. Provide opportunities for students to share their digital work to various audiences. 	Google Apps Office 365 Google Drawing Twiddla Canva Prezi WeVideo
Global Collaborator Students use digital tools to broaden their perspectives and enrich their	7.a. Students use digital tools to interact with others to develop a richer understanding of different perspectives and cultures.	 I can use digital tools to work with friends and people from different backgrounds and cultures. I can use technology to collaborate with peers, experts, 	 Teach strategies for working together with a team in an online environment. Provide opportunities for students to collaborate 	Norms of Collaboration Online Tools for Collaboration Skype in the Classroom

learning by collaborating with others and working effectively in teams locally and globally.	7.b. Students use collaborative technologies to connect with others, including peers, experts and community members, to learn about issues and	community members, and others, to explore different points of view on various topics. • I can work with a team utilizing technology to complete a	using digital tools.	Appear in
				Dogo News
	problems or to gain broader perspective.	project or solve a problem.		<u>Kahoot</u>
	7.c. Students determine	I can work with others using collaborative technologies to		<u>Today's Meet</u>
	their role on a team to meet goals, based on their	explore local and global issues.		<u>ThinkLink</u>
	knowledge of technology and content, as well as personal preference.			<u>NearPod</u>
	7.d. Students select collaborative technologies and use them to work with others to investigate and			
	develop solutions related to local and global issues.			