



Technology in Action Guide

ISTE Standards For Students

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Standards for Students

Empowered Learner	Digital Citizen	Knowledge Constructor
Innovative Designer	Computational Thinker	Creative Communicator
Global Collaborator		

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. Students:

Use IT!

a. articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.	b. build networks and customize their learning environments in ways that support the learning process.
c. use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	d. 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.

Seesaw is a platform that can be setup to assist students with multiple ways of feedback in a networking environment. Students have the opportunity to choose from a large number of mobile apps and online tools to demonstrate learning and share with the class, teachers and parents. <https://web.seesaw.me/>

Symbaloo—Educators can create a webmix with all of the available online and app resources students can choose from when developing strategies for completing their learning goals. The webmix is a “visual” bookmarking tool to connect students to online content. <https://www.symbalooedu.com/>



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. Students:

Protect IT!

a. cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.	b. engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices
c. demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	d. manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.

Digital Citizenship Resources

CommonSense Media Scope and Sequence for all grade levels, including parent resources and online games. <http://bit.ly/2vk5Bpd>

Be Internet Awesome by Google has an online game, teacher and parent resources for all grades. <http://bit.ly/2vkcvuC>

Copyright Resources

CommonSense Media—Copyright videos for all grade levels. <http://bit.ly/2vkcbw0>

Copyright Kids is a platform that includes game, quiz and many resources for students to understand copyright. <http://www.copyrightkids.org/>

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. Students:

Find IT!

a. plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.	b. evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
c. curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.	d. build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

Safe Search Engines

Kiddle— Visual search engine where 1-3 results are just for kids, 4-7 are easy to read, the rest still filtered. <http://kiddle.co/>

KidRex—Searches return kid-related webpages powered by Google Custom Search/ Safe Search. <http://www.kidrex.org/>

Research Tools

Ducksters is a simple, K-5 student friendly database. Resources pages are detailed but easier for some students to maintain attention and not get frustrated in too much "text". <http://www.ducksters.com/>

Wolfram Alpha is known for MATH, but includes all content areas in a wonderful search platform. <http://www.wolframalpha.com/>

Innovative Designer

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

Make IT!

a. know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.	b. select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
c. develop, test and refine prototypes as part of a cyclical design process.	d. exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

Infographics, flowcharts and design software will allow students to visualize their designs and help communicate their solutions.

Lucid Charts allows for a free educational account with a school email address. If you do not have an @edu or other signifying school email, register and then send an email to their contact center to request it. www.lucidchart.org

CANVA is another online platform to design “drag and drop” infographics and charts to generate ideas. www.canva.com
DRAW.IO does not require a login, but will need an email if you wish to save your project. www.draw.io



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. Students:

Solve IT!

a. formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.	b. 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.
c. break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.	d. understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

Dirt Directory is a registry of digital research tools for scholarly use. Statistical analysis tools to mind mapping software links can be found here. <http://dirtdirectory.org/>

Google Sheets or **Microsoft Excel Online** can help students collect data and analyze it. Microsoft online Excel FREE: <http://bit.ly/2vxK3pl>

Create A Graph—Kidzone online graphing tool. Extremely kid friendly for elementary students to graph data online. Includes a tutorial to get started if students are new to graphing. Students can take data from any situation and create a visual representation of the information much easier than a spreadsheet creation. <http://bit.ly/1OxeRx6>

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. Students:

Share IT!

a. choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	b. create original works or responsibly repurpose or remix digital resources into new creations.
c. communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.	d. publish or present content that customizes the message and medium for their intended audiences.

Students can communicate in a variety of formats such as graphical with **Lucid Press** or **Canva** to design a flyer, brochure or other desktop publishing format. Students can take it a bigger step forward and communicate using “coding”.

Scratch—Program a game to share information or choices in decisions in facing students in class or the research information from a project. <https://scratch.mit.edu/>

Microsoft’s Minecraft—develop a guided tour to show information gathered in a project or study. Students can place a “Guide” and informational boards throughout the game. <https://education.minecraft.net/>



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. Students:

Connect IT!

a. 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.	b. use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.
c. contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.	d. explore local and global issues and use collaborative technologies to work with others to investigate solutions.

Weebly and **Google Sites** can allow students to reach out beyond their classrooms and get feedback on their creations.

Edublogs can be class or student centered blog. All resources are now free for educators! Blogs can be password protected to keep just the classes that are communicating connected. <http://edublogs.org/>

ePals has some free resources to connect with classrooms around the world for specific projects or just communication. <http://www.epals.com/#/connections>

To find more resources and the latest up-to-date technology to support technology integration, please visit www.ilclassroomtech.weebly.com.

- ◆ Assessment tools
- ◆ Audio/video tools
- ◆ Content area support
- ◆ Digital portfolios
- ◆ Computer science
- ◆ Learning management systems
- ◆ Mobile apps
- ◆ Research tools
- ◆ Social Emotional Learning
- ◆ Technology terms

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