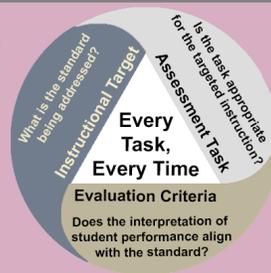


Technology in Action Guide



Assessment



Definition

The tools provided in this resource can assist educators in collecting data to inform their instruction and improve the learning of their students. All of the resources allow students to show their understanding in multiple ways. Educators are encouraged to explore many different tools throughout the lessons and units to provide a variety of response abilities of all students.

Formative

Formative Assessment is an assessment process used by educators and students during instruction for the purposes of informing teaching and improving learning.



Assessment Platforms



Edcite allows educators to engage students with interactive digital practice in using interactive questions. Interactive digital question types match the styles used in the PARCC assessment platform such as drag and drop, graphing, pictograph, histogram, fractions, numeric answer, dot plot, math keypad entry, number line, order list, rearrange text response, select answer, indexing image labels, grouping, match images to text, math symbols and graphs, Venn diagrams with images, order text or image list...etc. Educators create class rosters, design their own assessments and monitor results. This platform integrates with Google classroom. There is also a community question bank from other educators.

<http://www.edcite.com/>



Edulastic is a technology-enhanced assessment solution for teachers. It is easy enough for classroom formative assessments, yet sophisticated enough for common interim and benchmark assessments that mirror state tests. Teachers get instant classroom data that shows who's on track and who needs help so that they can take action. Edulastic has one of the largest bank of technology-enhanced items and allows teachers to create their own TEIs, mix and match and/or collaborate with colleagues in the school or district. Almost all questions, including sophisticated equation response, graphing, etc. are auto-graded resulting in instant data with minimal teacher effort in manual grading. www.edulastic.com



Nearpod turns PowerPoint, Google Slides and PDF's into interactive presentations that can be viewed on student iPads, Chromebooks and/or a projector. Students can go through the presentations at their pace or the educator can control the pace of the slide and embedded questions. Nearpod also has many free presentations that have been created that are aligned to standards (K-12 grade) in all subject areas. (Always review the content to ensure alignment.) There are many discount "flash" sales throughout the year and several "free weekends" to grab downloads even if you don't have plans for the content right now! <http://nearpod.com/index.php>



Edpuzzle - Take already existing videos from many platforms (YouTube, Khan Academy, Crash Course, Vimeo, etc...), or upload your own and add interactive questions and your voice to engage students with the content. Educators can monitor the students time spent watching the videos and the answers to the questions. (iOS app, Chrome app, Android app) This platform can be used either in the classroom or at home. Students can login from anywhere, including Google classroom. <https://edpuzzle.com/>



PARCC Resources



PARCC Informational Guides to the Summative Assessment in **Mathematics** - These new grade/course specific documents include Higher Level Blueprints, Updated Evidence Tables, Evidence Statement Descriptions, Calculator Policy, Reference Sheet and more! <http://bit.ly/2wBDs20>



PARCC **ELA/Literacy** Test Documents - Here you can access ELA Evidence Tables, Form Documents, Claims Structure, and Task Models. <http://bit.ly/2FF9YAD>



Parent Resources - Be A Learning Hero Learning Tools- Learning Tools are resources developed by our partners to support a child's learning in Mathematics and English Language Arts at home. Visitors can search by grade level, subject or specific type of resource. <http://bealearninghero.org/learning-tools/>

Exit Tickets



Create a **Google Form** that asks students about their thoughts on a lesson that they must fill out before they can leave for the day. <https://goo.gl/96E5c4>



Have students create an "Exit Ticket" pinboard on **Pinterest**. Then, each day, require them to pin one thing they've learned to the board. <https://www.pinterest.com/>



Have students create a 30-second **Voki** that shares what they learned each day. <http://www.voki.com/>



Use **PollEverywhere** to have students share ideas in real-time. <https://www.pollerywhere.com/>



Padlet is an online shared space students can post notes, multimedia files, hyperlinks and documents on. Educators are also able to adjust privacy settings to ensure student safety. (Padlet has changed the platform. Free accounts are limited to 3 boards. (If users had an account before they will keep their original board count, plus 3 more. <https://padlet.com/>



Have students create a single **PowerPoint** slide that shares what they learned. Then, compile all student slides into one slideshow that you can use to start the next lesson with! <https://office.live.com/start/PowerPoint.aspx>

Self-Reflective/ Feedback Tools



Recap—by Swivl is a free app/website tool that provides teachers with new, creative ways to gather evidence of student thinking using video recordings. It helps create new learning connections between students, parents and teachers. Create and assign questions to a student, a group of students or the entire class to be answered during or after a lesson via the devices' camera/microphone. This app works on iOS, Android, Chromebooks and desktop machines. <https://letsrecap.com/>



Kaizena—An online platform that allows for written and auditory feedback from both educator and peers on papers. The platform integrates with Google Drive and Classroom. Students can be enrolled in the class by a code or imported from classroom. Voice comments are up to 75% faster than typing, and help you convey tone and emotion in your feedback. Track and rate skills to quickly communicate strengths and weaknesses. This is an Google add-on. <https://kaizena.com/>



Seesaw— This is a student driven digital portfolio system that allows students to independently document what they are learning at school. Educators create classes within the platform. Students can capture learning with pictures and videos (currently just iOS for videos), import documents and add comments. Student work can be shared with the class and other students can comment. (Educators monitor the comments prior to being displayed.) <http://web.seesaw.me/>



Response Systems



Kahoot! Kahoot is a fun learning game made up of multiple choice questions created by teachers. The questions can be 2-4 answers using text, videos, images and diagrams. Players use their own devices to play this fast paced game, (platform can be accessed from any internet enabled device). Students can also create their own Kahoots. No player sign in required to play the game, just the PIN for the game. <https://getkahoot.com/>



Socrative is a resource that allows for multiple choice, true/false and short answer responses in real time. No student logins are required; however, students "sign in" when they enter the room so that data is saved to the teachers account at the end of the session. Student data and class data is populated when the session is complete. <http://www.socrative.com/>



Plickers is a real time formative assessment tool that only requires the educator to have the technology. Using Plickers allows the students a chance to participate and engage in answering without feeling self-conscious about their answers. Educators print out the Plicker cards after creating an account and assigning the card numbers to students within the class(es). Educators distribute the cards to the students. When the student hold up the cards in the correct position to answer, the educator scans the room with their device. The app gathers the data (responses) and places the responses on a screen (with or without student's names.) <https://plickers.com/>



Quizizz - Multiplayer response system for all devices. Start a "Live" game in class or assign Quizizz as a fun "Homework" task. You control the competition by toggling the leaderboard, timer and other settings. Students play together, but each at their own pace. Gamification elements like avatars, leader board (can be turned on or off) and funny memes add to the fun! Use detailed class and student-level reports to understand where students need help. <http://quizizz.com/>



Go Formative is a platform that allows teachers to see each individual students responding in real time to the assessment activities. The format of the questions can be either multiple choice, show your work, short answer or true false. Students and teachers can use any internet connected device. The teacher view is made up of all student devices and allows for individual feedback as the student is working. Teachers can upload word or PDF documents that students can enter text or draw on. Importing media or connecting to a URL for student assignments is available as well. (There will be a PRO acct option later this year, but currently all aspects are FREE.) <https://goformative.com/>



Tozzl.com is a chat board and many more things. Users do not need to have an account to create a "board". The board can be public or private.(only those you invite by email can see the board.) The unique features of this platform is that users can add different sections to the board- Chat, File Sharing, ToDo lists, YouTube Videos and Import a Twitter feed. This can open up some great opportunities to share and gather information from participants in a class or presentation. <http://tozzl.com/>



Answer Pad is an interactive platform that allows for educators to watch each students' "answer pad" while they work on answers to questions. Educators set up how each question should be answered (multiple choice, short answer, drawing or even a template). The free version gives you 12 basic templates for use with math and ELA standard question types. (Cause and Effect, X Y Chart, etc.) When teachers are logged in they can watch the class work on the "answer pads" in real time. Pads can then be saved for data. <http://app.theanswerpad.com/homepage.html>

Even MORE Resources

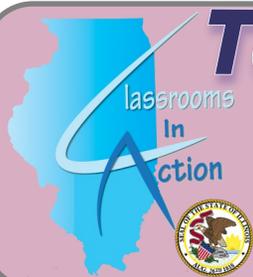
To find more resources and the latest up-to-date technology to support technology integration, please visit www.ilclassroomtech.weebly.com.

Resources available include:

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

Technology in Action—Assessment

The screenshot shows the 'Tech for Teachers' website. The header features the text 'Technologies in Action' and 'TECH FOR TEACHERS'. A search bar is visible with the text 'How to find resources on this site...'. A navigation menu on the left lists various categories: Assessment, Audio/Video, Classroom/Teacher Resources, Computer Science, Content Areas, Digital Portfolios, Digital/Pink, Games, Integration, Interactive, Learning in Class, LMS Platforms, Maker/3D Projects, Microsoft, Mobile APPS, Open Educational Resources, Professional/Student Arts, Research Tools, Social Emotional Learning, Special Needs, Technology Terms, and Web 2.0/Online Tools. The main content area includes a 'Welcome!' message and a paragraph about the website's purpose: 'The Illinois Classroom in Action Tech for Teachers website is designed to connect classroom teachers with a variety of resources and ideas to support the integration of technology into their instruction. Educators have a wide range of digital materials and tech tools available. The purpose of this site is to provide a unified compilation for those who do not have the time to investigate the many excellent tools currently available. All of the resources reviewed on this website are free to access or they have a free component for educators. Some may have an upgrade available at a cost. All platforms are K-12 unless there is a specific grade level within the platform's description. Webinars are accessible on all devices unless otherwise specified in the descriptions. Please provide feedback regarding items listed in the email at the bottom of each page as the content will continuously change. The resources listed here do not constitute or imply endorsement or favoring by the Illinois State Board of Education.'



Technology in Action Guide

Computer Science/ Coding



Benefits of Computer Science and Coding

Improves Organization and focus skills	Programming teaches kids to experiment	Drives Innovation
Helps kids visualize abstract concepts	Story-based games requires narrative pacing, compelling storylines, engaging dialoged, and understanding audience.	Builds confidence
Builds perseverance and problem solving	Skills develop like problem solving and computational thinking	Allows kids to be creative
Computational thinking involved in computer programming involves logic, organizing and analyzing data, and breaking a problem into smaller and more manageable parts.		



Elementary Computer Science



Crash Course—Computer Science has a playlist of videos on the Computer Science field, including history and uses. There is a playlist on PBS and YouTube. There are 41 videos on the series that starts off with “Early Computing”, Boolean logic and logic gates, Binary, Arithmetic and logic, instructions and programs.

PBS—<https://to.pbs.org/2ryJsUi>

YouTube- <http://bit.ly/2ryGZcz>



Pencil Code website allows users to learn professional programming languages using an editor that lets you work in Blocks or Text.

Users can create programs that create art, make music, or create an adventure. There are many resources for the educator to help guide students through the program.

<https://pencilcode.net/>



Elementary Coding



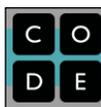
Tickle app can control 20 different devices—Micro:bit, Sphero SPRK+, Dash and Dot, LEGO WeDo, Ollie, Drones and LightBlue Bean. There are many YouTube videos to learn the coding within Tickle for both educators and students. Tickle is available for iPad-

<https://apple.co/2rAVHQn>



The Foos is a web platform that also has iOS and Android apps that build basic programming skills for the "PRE-READING" student. The first screen takes the student visually through the steps in a gaming environment that is enjoyable and instantly rewarding. The assistance built into the program is guided and well designed to assist students. A simple platform to help students build perseverance skills in a friendly environment.

<http://thefoos.com/>



Code.org is the key sponsor of "The Hour of Code", but also a full curriculum platform for coding in the classroom. The coursework can begin as early as "pre-literate"...no reading necessary, and anywhere after! Educators can create a teacher account in the Code Studio and find many resources to get classes on the path to coding. Full lessons and units are available and connections are made to ELA, Math, Science and SEL Standards.

<https://code.org/educate>



Made with Code is designed by Google to encourage more girls to enter the field of coding this platform shows how coding can be more artistic, musical, and even fashionable. Projects start out simple and progress in difficulty. There are many resources available and a great page of mentors showing a great collection of interview with women of coding.

<https://www.madewithcode.com/home/>



Mobile Apps



Kodable is a companion piece to a free computer science curriculum on their website here. The curriculum is for K-5 grades with full lesson plans aligned to standards. It can also be used independently. This app is designed for ages 4-11 and is free, but does have extended levels available for additional fees. <https://apple.co/2rxSNvx>



Scratch JR. is the same platform as the website, but less choices to make it more simplistic and easier for earlier grade levels. This app works great for K-3rd grade students. Any projects created in this app can be incorporated in the Scratch App or the Scratch website platforms. This app is free and has no in-app purchases.

ANDROID <http://bit.ly/2BLKU10> iOS <https://apple.co/2BKHHdE>



Technology in Action Guide

Copyright Fair Use Media Resources



Definition

Students living in a digital culture can access information instantly, rework media and share the creations globally. This can lead them to use online material without thinking about where it comes from or who owns it. When something is posted online for the world to see, someone, somewhere created that picture, song, or video. It belongs to that person. As digital creators our students need to take responsibility

and understand that "copy and paste" without citing the source would be plagiarism. Downloading videos/music would be piracy. In order to facilitate our students to become digital citizens and innovative designers we need to provide resources that are copyright free and follow fair use guidelines. For more info on Copyright for students see Common Sense Media's classroom lessons: <http://bit.ly/2vkcbw0>



Video and Photo Content



Next Vista for Learning provides a library of free videos made by and for teachers and students everywhere. All content is licensed under Creative Commons Attribution. There are over 1800 videos on the website. They also have a large collection of career videos to help middle and high school students better understand and connect to their future possibilities. Math in the pharmacy is one example of algebra in the real world. <http://www.nextvista.org/>



WatchKnowLearn is a video platform that has educational videos curated not only by the website developers, but users can also upload videos. Categories range from standard subjects such as ELA, math to fine art, PE, crafts, foreign language, life skills, etc. They have a great selection of Careers and Community Jobs for early elementary classes such as Fireman, Police, and Postal worker. Educators can create accounts and save videos to a playlist so they are ready when needed in the classroom. <http://www.watchknowlearn.org/>



Pixabay has over 1.3 million images and videos all with a creative commons license for free use. The quality of the photos and videos are excellent. Videos can be used as backgrounds in user created movies for an added touch. The platform does a "safe search" when searching as a default. No login is required to save the files to any location. Users can select the "size" of the file to download and preview what the adjusted size would look like. <https://pixabay.com/>



Photos for Class allows photos and clipart safe search that returns images that are appropriate for schools by using filters. ****recently added videos**** Downloaded images automatically cite the author and the image license terms. All photos shown are, to the best of their (and Flickr's) knowledge, licensed by Creative Commons for public use. No registration necessary to search and download photos. <http://www.photosforclass.com/>



Unsplash - Photos for everyone - All photos published on Unsplash can be used for free. You can use them for commercial and noncommercial purposes. You do not need to ask permission from or provide credit to the

photographer or Unsplash, although it is appreciated when possible. There is only a small filter system in place, no strong inappropriate photos, but use with caution for younger grades. No account is needed to search, but can be created to save photos. The website also includes a Google Slides add-on that can be added to Google Slides and used while in "Slides". <https://unsplash.com/>



My Cute Graphics provide free clip art for printing, lessons and projects. Creative Commons license for personal or educational use. Clip art is available in over 20 categories. The platform also has backgrounds from shapes to themes. Graphics are in both color or B/W coloring book styles. Graphics of children are "cute" and cartoon styled. No login required, simply select the choice and then right-click to "save as". <https://www.mycutegraphics.com/>



Stockio has creative commons and public domain photos, vector graphics, icons, videos and fonts available for download. When searching for one of these you may need to try different words to get what you may want. Once selected there will be a "download" button with the usage rights written next to the photo. No login is required, but can be created to keep a users collections. *(The website terms state not designed for students under 13 years.)* <https://www.stockio.com/>



Pick Wizard includes creative Commons and public domain photos that can be searched for by keywords or a theme for further choices. There is a small filtering systems in place so some photos **may not be appropriate for younger grades**, but none are offensive. No account is needed to use this platform. <https://pikwizard.com/>



Reshot is a platform that selects the photos that are housed within it's platform so they do filter content and do not allow inappropriate items. When users search for photo there is an "extra" selection of photos at the bottom of the screen that are housed on a PAID site so selecting them will take users to another platform. <https://www.reshot.com/>

Music and Sound Content



Tabletop Audio has a wide variety of 10 minute ambiances and music for game and story creations. Looking for a car chase, spooky sounds, fantasy or any number of genres they can be found here. Free to download and use based on the website having everything with a creative commons license. No account is needed to download music or sounds. <https://tabletopaudio.com/>



CC Mixer (Creative Commons Mixer) is a music website for downloadable music for all background music needs. Musicians upload to this website with complete creative commons share-a-like license release. Instrumental and vocal music is searchable and can be previewed prior to download. *Lower grade levels may need more guidance or teachers can download selections for students to work with since previewing lyrics should be done prior to some ages listening independently.* <http://ccmixter.org/>



Freesound aims to create a huge collaborative database of audio snippets, samples, recordings, bleeps, ... released under Creative Commons licenses that allow their reuse. Freesound provides new and interesting ways of accessing these samples, allowing users to: browse the sounds in new ways using keywords, a "sounds-like" type of browsing and more upload and download sounds to and from the database, under the same creative commons license. *Students can have accounts and search results will note if the sounds or songs have "explicit" content, so caution is advised.* Educators can of course create an account and download an entire library of sounds to host on a thumb drive or Google drive for students to select from without the need to go online themselves. Easy platform to preview the sound prior to download and simple download. <https://www.freesound.org/>



BBC Sound Effects hosts over 16,000 sound effects that are made available under the RemArc License. (England's CC) Website is simple to navigate, preview and download resources. There are categories to assist in searching and you can try keywords as well. Each resource shown in a search or just scrolling does have an accurate description to help you decide if it is right for the project. Remember it is from England so if you want movie sounds search for CINE. <http://bbcsfx.acropolis.org.uk/>



Jam Studio is a full music creation platform where students can build songs and background music online and save to use within any production or presentation. Educators can request an all access pass for a free account. This takes some emailing, but can be done. Users must be 13 yrs or older to have an account. The basic free account (not the one educators can request) is limited, but available. Educators, click on the "in classroom" button and follow the instructions to request a Grant. (Many are accepted.) <http://www.jamstudio.com/Studio/indexStudio.htm>



Classic Cat Music Catalog has 6000 music performances available for download. Choose a composer, then the piece you would like to download, and then the file icon. Be cautious there are many ads on the website. (Nothing inappropriate, just flashy.) No login required. <http://www.classiccat.net/>



SoundGator has sound effects in many categories. Users do need an account to download the files. (There are a few advertising "buttons" on the pages, so caution when clicking.) Some categories include sports, money, nature, phone, multimedia, animal, bell, beep, fire, household and musical. <http://www.soundgator.com/>



FreePlay music has over 50,000 songs that can be used for free within educational settings. (Uploading the YouTube requires a different license, however still free.) Users can search by category, genre, and mood. Using the music for any revenue generating production or off-campus use requires a business license. Currently that is \$25/year for educators. <https://freeplaymusic.com/index.aspx#/>



Musopen has music by many composers and also includes the sheet music if users want to download. When using the site users can filter by All, Recordings or Sheet music. The search can also be done by instrument, so looking for a tuba piece. No problem. <https://musopen.org/music/>

Even MORE Resources

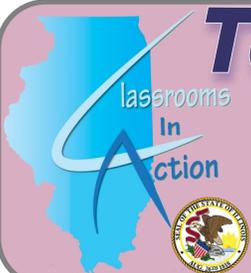
To find more resources and the latest up-to-date technology to support technology integration, please visit www.ilclassroomtech.weebly.com.

Resources available include:

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

Technology in Action—Copyright

The screenshot shows the 'Tech for Teachers' website. The header includes the title 'Tech for Teachers' and a navigation menu with categories like Assessment, Audio/Video, Classroom/Teacher Resources, Computer Science, Content Areas, Digital Portfolios, Digital/Print, Games, Integration, Interactive, Learning in Class, LMS Platforms, Maker/3D Projects, Microsoft, Mobile Apps, Open Educational Resources, Professional/Student Arts, Research Tools, Social Emotional Learning, Special Needs, Technology Terms, and Web 2.0/Online Tools. A search bar is visible with the text 'How to find resources on this site...'. Below the search bar, there is a 'Welcome!' message and a list of resources.



Technology in Action Guide

CTE Open Educational Resources



Career Ready Practices

Students starting out in a CTE course should also work on building competency in the Career Ready Practices. In Illinois these are very closely linked to our Social Emotional Learning Standards and Math Practice Standards.

Act as a responsible and contributing citizen and employee	Consider the environmental, social and economic impacts of decisions	Model integrity, ethical leadership and effective management
Apply appropriate academic and technical skills	Demonstrate creativity and innovation	Plan education and career path aligned to personal goals
Attend to personal health and financial well-being	Employ valid and reliable research strategies	Use technology to enhance productivity
Communicate clearly, effectively and with reason	Utilize critical thinking to make sense of problems and persevere in solving them	Work productively in teams while using cultural/global competence



Career Exploration



CareerOneStop is a website that students can reflect on their strengths and skills that will allow them to look at how those factors can be connected to careers and colleges. Selecting resources for Students and Career Advisers takes users to a page that offers two exploration links: "Identify Your Interests" and "Explore Careers". On both of these pages is where students can use their list of strengths and skills to identify careers that would match with what most interest them. Take this a "tech step" further and have them create a presentation or infographic about one of the careers that match their strengths/skills. <http://www.careeronestop.org/>



Course Specific Classroom Resources



CTE Online is the California resource devoted to connecting educators and leaders within the unique field

of Career and Technical Education to quality curriculum models, shared communities of practice, and professional development tools that emphasize the role rigorous academic skills play in supporting students' pursuit of industry- and career-related coursework.

Almost 60 Model CTE Online STEM Integrated Projects.

Over 3,000 Lesson Plans aligned to CTE Standards, Common Core and Next Generation Science Standards

Over 50 CTE Model Course Outlines

Professional Curriculum Development Tools

Over 20,000 Instructional Resources

<https://www.cteonline.org/>

Complete Course Outlines with lessons, units, project based learning activities and assessments for the following CTE Industries:

- Agriculture & Natural Resources
- Arts, Media, and Entertainment
- Building and construction trades
- Education, Child Development, and Family Services
- Energy, Environment, and Utilities
- Engineering & Architecture
- Fashion and Interior Design
- Health Science and Medical Technology
- Hospitality, Tourism, and Recreation
- Information and communications Technologies
- Manufacturing and Produce Development
- Marketing, Sales, and Services
- Public Services
- Transportation



Tools for Career Prep Skills



Resume Now is an online platform to create a resume. There are many templates to choose from, even some dedicated to the

"first job" resume or high school student. Simple steps to building a complete resume. Resume creation is a free part of this platform. Job search is available for a fee.

<https://www.resume-now.com>



Recap is a platform that allows students to practice interview skills. Educators can create a class account for all students. Educators can then "send" interview questions to the student either via video or text. The student can then record themselves answering the questions. Students can then review and reflect on how they answered the question, including visual clues that they may not be aware of at the time. <https://letsrecap.com>

IOER—Illinois Open Educational Resource Career Libraries



Health Sciences library contains career information, health sciences curriculum, labor market information and a professional library. The curriculum can be downloaded in its entirety or just specific modules. There are 15 modules plus a capstone project. All activities and resources are aligned to the standards including IL-PDH, NHES and NGSS.

<http://bit.ly/2rHslji>



Curriculum Revitalization has sub-libraries with many CTE resources. Their libraries include: All Career & Technical Education, Business, Marketing & Computer Education, Family & Consumer Sciences, School Counseling Resources and Technology & Engineering Education. The libraries contain interactive resources, lesson ideas, articles to assist in college and career readiness for students. <http://bit.ly/2ryWVLT>



Resources to Support CTE Courses



Canva is a platform where students can create infographics, collages, letterhead, flyers and other publishing needs. The resource is available on the website, which is ChromeBook compatible, an iOS and Android app. <http://www.canva.com>

iOS app—<https://apple.co/2KbppCa>

Android app— <http://bit.ly/2wAtqy6>



Lucidpress makes it easy for all students to create stunning content that brings their big ideas to life. Built in templates are available and the platform includes connection to images that are copyright free. There is an educational account just for teachers and their students. Scroll to the bottom of the linked page to get started. If you do not automatically get enrolled in the educational platform, please don't hesitate to follow the instructions to request it. (Email accounts with .edu or k12.us.il should automatically populate. If you use another type of address, request access.) The platform integrates with Google Classroom.

<https://www.lucidpress.com/pages/usecase/education>



LucidCharts is a connected website to LucidPress that has an abundance of charting, drafting and flowchart style documents. When educators create a LucidPress account they will also get a LucidCharts educator account...or vis - versa. This platform can also just be used as an online tool to create and download (many formats)/print a chart. <https://www.lucidchart.com/>



Color Explorer has a "color match" page that allows users to adjust color bases (RGB) and Hue, Saturation/Lightness to them show what the RGB numbers are or industry standard number for a specific color. This will allow students in a painting, graphic arts, interior design and many others to make sure their color schemes are exactly the same color choice. This will work on a ChromeBook.

<http://www.colorexplorer.com/colormatch.aspx>



SketchUp allows users to create 3D modeling for many CTE programs. (Architecture, Construction, Engineering, Interior design, 3D printing, Landscape

Architecture, Game design and Film & Stage) The site offers many video tutorials on how to use the platform. It will work on a ChromeBook. They also have a community help desk that is very responsive to requests. <http://sketchup.com>



Blender offers many programs that focus on animation, 3D printing and game design. This is an open source program that needs to be downloaded and used on a laptop or desktop station. This also means that internet connectivity will not be an issue. There are many examples and resources available for teacher and students to get inspiration. (This is a python controlled interface.) <https://www.blender.org>



Tinkercad is an easy, browser-based 3D design and modeling tool for all. Tinkercad is also the perfect 3d printing companion – it allows students to imagine anything, and then design it in minutes! Tinkercad is part of the123D family of free apps. Students and teachers can sign up for free accounts and start creating projects quickly and easily. The platform offers wonderful tutorials for teachers to incorporate the lessons into the classroom activities. <https://www.tinkercad.com/>



PhET Simulations from University of Colorado provides fun, free, interactive, research-based science and mathematics simulations. The simulations are written in Java, Flash or HTML5, and can be run online or downloaded to your computer. (More are being updated to HTML5 everyday, those will work on a ChromeBook.) Simulations are all subjects -physics, biology, chemistry, earth science and math. Users can play with the simulations without an account. Educators can use an account to keep track of students and simulations. A great tool for electricians, construction and any other engineering pathway. <https://phet.colorado.edu/>



Need an Expert???



Microsoft Skype in the classroom has many Guest Speakers on the platform. Educators can search for a specific speaker by topic or location. Try a few different terms when searching...i.e. "Electrician" can also be under "Engineer". This link will take you to the "find an expert" page where you can search. If you do not find an expert in the topic you are searching for submit it to Microsoft. They may be able to find you an expert. Also look for field trips to companies or organizations that fit your CTE need. <https://education.microsoft.com/skype-in-the-classroom/find-guest-speakers>



Even MORE Resources

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

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- ◆ Mobile apps
- ◆ Research tools
- ◆ Social Emotional Learning
- ◆ Technology terms

Technology in Action—CTE Open Educational Resources



Technology in Action

Guide

Dynamic Learning Maps Essential Elements

Modified Desktop Tool



Maavis provides greatly simplified access to media, communications, web and programs on a computer. It is primarily designed for people who are either unsure of computers or unable to use them without adaptation. It was designed and developed as part of research into use of technology by people living with dementia. Maavis is a program that must be downloaded and installed. When installed and activated Maavis replaces the "desktop" (Windows

screen) with a simplistic easy to understand platform. This replacement desktop can be customized by the educator to meet the needs of the student...i.e. large squares of specific colors signifying which selection will start an ELA activity, a Math activity...etc. Maavis is FREE open source software. Maavis will work on all Windows machines, it cannot be used on a ChromeBook. <http://maavis.fullmeasure.co.uk/>

Text to Speech Tools



Select and Speak (Chrome Extension) uses iSpeech's human-quality text-to-speech (TTS) to read any selected text in the browser. It includes many iSpeech text to speech voices in different languages. You can configure the voice and speed options by changing the settings on the options page. <http://bit.ly/2lqaAvC>



Office 365 Learning Tools— Immersive reader can be added to OneNote, Word, and Outlook. Learning Tools include immersive reader, enhanced dictation, font spacing and short lines, indicates parts of speech, syllabification...and available in other languages. Downloading or adding learnings tools can be done in all the OneNote applications—OneNote Online, OneNote desktop and OneNote Universal App for mobile devices. <http://bit.ly/2A7YXFm>



Read&Write (Chrome Extension)- A range of powerful support tools to help students gain confidence with reading, writing, studying and research, including: • Hear words, passages, or whole documents read aloud with easy-to-follow dual color highlighting • See the meaning of words explained with text and picture dictionaries • Hear text translated into other languages • Get suggestions for the current or next word as you type Teachers can get a FREE premium subscription to Read&Write for Google Chrome. To register and activate your subscription, go to rw.texthelp.com/freeforteachers after installing the Read&Write for Google Chrome trial. <http://bit.ly/2L7zOQE>



Text to Speech with Google Dive—(Google APP) This is a tool for generating voice from text or Google Drive file that you provide. Provides connect with Google Drive. You can directly listen to texts with your drive files. User can change voices, languages, and pace of the speaker. Will work within Google Classroom or just connected to a Google Drive account. <http://bit.ly/2k3EHhr>

English Language Arts



Storyline Online is a website that incorporates the idea that reading to children has been repeatedly shown to improve their reading, writing and communication skills, logical thinking, concentration and general academic aptitude, as well as inspire a love of reading. The SAG-AFTRA Foundation records well-known actors reading children's books (James Earl Jones reading To Be A Drum) and makes graphically dynamic videos so that children around the world can be read to with just the click of a Storyline Online video book image. New books are added periodically. The offer alternative players if your school blocks YouTube, just select the "players" button on the top left of the page to choose. <http://www.storylineonline.net/>



WriteReader is an ebook creator for students that haven't even started writing yet. Students insert a picture, either by taking a photo with a tablet or webcam, type how they think the words are written and then the "adult" type under their words the correct words. Students can also then records themselves saying the words on each page. These books can be created online, using an iOS device or Android device. Ebooks can be shared via sending the link in an email. The books are hosted online and can be marked as private library. <https://writereader.com/>



Listenwise is an award-winning listening skills platform. We harness the power of listening to advance literacy and learning in all students. (ebooks, podcasts, audio books) Our collection of podcasts and public radio keeps teaching connected to the real world and builds student listening skills at the same time. Listen to engaging real world podcasts. Read along with the interactive transcript. Discuss with students to deepen understanding. Many English Learners are not acquiring the level of academic language needed for college and career readiness. Find out how listening to authentic stories can help! <https://listenwise.com/>



ReadWorks Digital is the partner resource to ReadWorks.org platform that offers reading comprehension support. The resource works on Windows, Macbooks, Chromebooks and iOS devices. Included on the website are Nonfiction and literary articles, Question sets, Vocabulary support, Paired Texts, StepReads, Audio versions of articles, and an Article-A-DayTM. <http://digital.readworks.org/>



Scholastic Story Starter - a creative way to create a story starter for students K- 6th grade. (Although other grade may find it helpful.) Students can select from adventure, fantasy, sci-fi or have the computer choose "scrambler". The machine then spins four sections of the story sentence to create the starter. <http://www.scholastic.com/teachers/story-starters/>

Mathematics



ILLUMINATIONS website has a large collection of interactive activities/games for all grade levels and all standards. Educators can search by standard or grade level. Many of the activities can be used on an interactive whiteboard (smart-board or Promethean). No login is required

to use the activities. There are also lessons available on the website to work in conjunction with the interactive platform. Virtual Manipulatives and activities that will work on the computer, interactive whiteboard, and mobile devices. <http://bit.ly/2woYEgr>

Learning Management Websites for All Content



PowerMyLearningConnect is a free platform to create individualized or group lesson activities with standards aligned open educational resources. Educators can find interactive lesson, videos and games to create a playlist for either an entire group of students or an individual student that may need extra supports or challenges. Educators have unlimited classrooms and unlimited students and can even upload their own content to be placed within the playlist. Assessments can be embedded within the playlist as well to informatively assess learning as it progresses. The platform community also has pre-made playlists that can be copied and modified to fit the needs of students.

<http://powermylearning.org/learn/learning-games-activities>



MobyMax is an adaptive curriculum that creates a individualized education plan for each student. The content includes ELA (with informational text!), math, science, and social sciences. The free platform allows all content accessibility with teacher dashboard, review of student records (questions, progress...etc., and even parental connection.) Students can take the pre-assessment or educators can disable and set the grade level work themselves. The premium platform includes the pre-assessments, socials components, reward games, IEP goal connections. (Currently the cost is \$99/teacher/yr, however...unlimited students.)

<http://www.mobymax.com/>



Do2learn provides thousands of free pages with social skills and behavioral regulation activities and guidance, learning songs and games, communication cards, academic material, and transition guides for employment and life skills. Within each topic, we provide the hands-on resources needed to implement our suggestions. If we explain how to devise a visual communication system using picture cards, we provide free cards to get you started. When we present the Teacher Toolbox on how to adapt a classroom for children with special needs, we provide resources for behavior management plans, literacy tools, and the materials to create everything in your classroom.

<http://do2learn.com/>



Mobile Apps



BitsBoard APP comes in a free version as well as a FULLY OPEN paid version currently \$19.99. Using the app is like carrying all photo/word card sets with you at one time and being able to play 14 different games with any set of cards.

The free version includes access to the Bitsboard user catalog/library including tens of thousands of flashcards and carefully curated lessons covering hundreds of topics. Bitsboard is fully customizable to meet educators specific learning needs and allows educators to create their own cards that can be used in the 14 plus activities in the APP. Upload / import pictures to meet the needs of students. The free version allows access to an online collection of "boards" that other educators have created that can be downloaded. The PRO version does allow for multiple users on one device and more management capabilities. Also popup reminders to upgrade will disappear. <http://apple.co/2y9LA6i>



See Touch Learn has picture cards that are an integral part of an effective learning program and are used to help teach new words and concepts and foster self-expression. See.Touch.Learn app combines the effectiveness of picture cards with the power and interactivity of the iPad. Create custom exercises and lessons, automatically track performance, and carry an entire library collection at all times. Free version comes with 100 words and in-app purchases. Currently for \$3.99 in-app purchase educators can custom create any photo or text cards to build their own library. There are some holiday and other resource libraries available for download that are free as well. Joining the COMMUNITY (free) will give access to educator shared libraries as well.

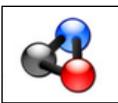
<http://apple.co/2y8Kt6M>



Science



Concord Consortium Path Finder - Their STEM Resource Finder features some of the best of free, open source educational activities, models and software tools. All grade levels have models and simulations available. Educators can search by keyword or filter by subject, grade level and type to find the right resources for learning goals. ****Educators will need to carefully consider where to include these resources in their curriculum to ensure they are aligned properly to their grade level standards.** <http://concord.org/ngss/>



Science Fun for Kids has interactive games in many topics. Living Things, Physical Process and Solids, Liquids & Gases. Be aware that there are lots of "ads" around the games even once a game is selected. Some of the games will run on a ChromeBook. <http://www.sciencekids.co.nz/gamesactivities.html>



Smithsonian Education Center - Game Center has science based interactive games for life, physical and Earth and Space content. Many games for all grade levels, most will play on an interactive whiteboard or iPad.

<https://ssec.si.edu/>



Virtual Labs is a platform developed by a collaboration of several universities to bring interactive science labs to education. There are eight

labs that help students learn basic laboratory techniques and practice methods used by lab technicians and researchers in a variety of careers, using specific food science lab processes. Expert lab technicians help make sure that the food we eat and feed to our animals will not harm us or our livestock. Students are the "assistants" in the experiments. There are additional information provided throughout the video process by clicking on the "!" information button. All text is read and the movements from the user can be done using an interactive whiteboard. <http://virtuallabs.nmsu.edu/index.php>



MOBILE APP- With **goREACT**, you can become a virtual chemist. From the Chicago Science and Industry Museum. Whether you're a novice or expert, the free play and guided modes make it fun and fascinating. Initiate nearly 300 virtual

chemical reactions by dragging elements into the Reaction Area, - Select alternate views of the Periodic Table to discover different aspects of the elements' chemical properties. - Touch any of the Periodic Table's 118 elements to see an image and fun fact about it.

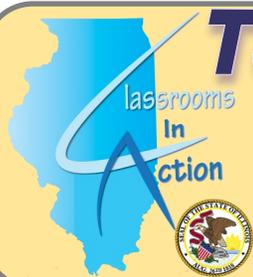
iOS link- <http://apple.co/2yclrDN> Andriod Link <http://bit.ly/2ybhEGM>

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Technology in Action—DLM Essential Elements





Technology in Action Guide

Elementary Digital Portfolios



Definition

A digital portfolio is a computer or web based collection of student performance over time. Portfolios provide a window into student learning. A portfolio should showcase both student achievement and student learning or growth. To demonstrate growth, a portfolio will often include similar work done over the course of several months or years.

The student portfolio should include content chosen by the student with the clear understanding that the items must include examples of their best performances, demonstrations of achieving a particular objective, and examples showing personal

and academic growth. The content should include a wide range of skills and abilities to provide clear demonstration of what the student knows and understands about their ability.

One of the most important elements in a portfolio can be the student's reflection on their work. Students should include reflections on each performance to clarify why that selection is included in the portfolio. This is perhaps the most valuable part of the portfolio, since it provides a much clearer window into the learning of each student.



Standards Connections

ELA: Speaking and Listening standards SL.2, SL.4, SL.5

Fine Art: Personal Portfolio Standards VA.PR4, VA. PR5

Math: Practice Standard 4 Modeling with Mathematics

Social Emotional Learning: Standard Goal 1— Developing Self Awareness —Goal 1—Develop Self-awareness related to academic goals

Social Science: Standards for Developing Inquiry Skills



Uses

Student Led Conferences— Creating a digital portfolio of student selected work to present during a student-led conference allows students to take ownership of their learning. Not only can students share where they excel in their academics, but they can reflect on their growth from the beginning of the quarter and even discuss where they may still be struggling by sharing the artifacts. Teachers can guide the selection of the portfolio artifacts so that the items included reflect the whole academic and social picture of the student.

Group Projects —Using a portfolio during a project to document and reflect on the parts of the process and tasks completed will help the students take time to understand how the group is working together and how the goals are being achieved. This will help students to make decision son which direction to take the project. Plan tasks and establish roles. Being able to look back on the process as a whole will also allow the group to determine what worked well and where they could make changes when they are working on another project.



Resources—Digital Portfolios



Seesaw— - This is a student driven digital portfolio system that allows students to independently document what they are learning at school. Educators create classes within the platform. Students can be entered into the classes or teachers can give a class code to the student to "self join". Students can capture learning with pictures and videos (currently just iOS for videos), import documents and add comments. Student work can be shared with the class and other students can comment. (Educators monitor the comments prior to being displayed to the class on the "Facebook like feed".) The Seesaw platform includes the following features: <http://web.seesaw.me/>

- ◇ Google classroom integration
- ◇ All mobile device apps (Kindle Fire!)
- ◇ Chromebook compatible
- ◇ Multimedia tools built-in
- ◇ Integration with 100s of apps
- ◇ Free parent access
- ◇ Class blog (can be public or private)
- ◇ Printing with custom QR codes
- ◇ 2 teachers can share a class
- ◇ Teachers can have 10 classes
- ◇ Portfolios can be downloaded to a CD
- ◇ Many webinars for training

Google Slides and Microsoft PowerPoint



Google Slides and Microsoft PowerPoint both make great digital portfolio choices. Google Slides will integrate with Google Classroom and be accessible from any device online. Microsoft PowerPoint can also be save online using Onedrive. Students can create a file when a project or semester starts and continually add artifacts as they progress through the semester. Multimedia files can be added to each of the program's slides from to other platforms to

share video and audio feedback or reflections. Embedded content from other website platforms can be added to the slides as well, such as blog posts, timelines and other student created content.

Microsoft PowerPoint presentations can be converted into a Sway video when completed and shared with anyone via email and watched on any device. Google slides can be saved as a video slideshow and played online.



Creating and Documenting Student Artifacts

Mobile Device Apps (All iOS unless noted)



The iOS and Android standard camera app can allow picture and video recording. Students can record each other holding up their work and reflecting or hold the device while pointing to the work and record their reflections. The file can be transferred from the device either via a cable or WiFi. Students could record their work with a partner or group as well.



Show Me app is a recordable white board where students can draw or write on the board while explaining their work.

This is a great way to show student mastery with student create math tutorials. Educators can upload images that students can write on, show or reflect on and engage with the content.

<http://apple.co/2eZ11fg>



Trading Cards by Read-Write-Think allows students to create trading cards in many categories. A portfolio may contain a trading card about the student and what challenged them the most or they learned the most about over the course of the semester/quarter. The card could also highlight the student's biography. All Devices www.readwritethink.org

Think allows students to create trading cards in many categories. A portfolio may contain a trading card about the student and what challenged them the most or they learned the most about over the course of the semester/quarter. The card could also highlight the student's biography. All Devices www.readwritethink.org

Websites and Online Resources



Screencast-o-matic

allows users to record on-screen activity and audio from a computer microphone or computer sound. Students can open their MS Word or Google Doc essay or report and record their reflections or process on how they developed their story. The video can then be saved and imported to the portfolio. The same process could be done for any computer generated work, modeling how to research or conduct a search online, or doing a science experiment with an interactive model and explaining why the reactions are occurring. <https://screencast-o-matic.com/>



PowerToon allows users to create animated videos and presentations. The platform uses a "drag and drop" interface. The platform enables voices to be scripted recordings with the characters on the screen. Students manage where the characters move during the animations. The free account allows for 5 minute videos with the PowerToon watermark in the bottom corner of the video. Students can use this platform to reflect as a group on how a project was successful or maybe needed some revision. The characters could role play choices the team or person made during the activity and what was learned from the students involved. <https://www.powtoon.com/>

<https://www.powtoon.com/>

ThingLink for Education

ThingLink creates an interactive digital graphic by adding "dots" that pop up text or connections to websites, videos or more graphics. Users can upload photos, documents or any graphic and then add points anywhere on the item to show items of interest or further exploration. Within a portfolio students might create a Thinglink for an art project or science model. After taking a photo of the

artifact students could identify areas within the media of an art project and make connections to the inspiration or selection of colors. Students connecting to a science model may have linkable items to the research they have based their data or maybe an interactive experiment proving their hypothesis. <https://www.thinglink.com/edu>

Word Cloud Creations

Creating word clouds from a student essay or story shows a graphic representation of the student's thoughts and stories. This can add an artistic expression to the digital portfolio. As the story writing increases so will the development of the word clouds. Here are three online choices for creating word clouds:



Taxedo—Clouds can be formed in shapes from basic to animals.

<http://www.taxedo.com/>



Wordle—color selections, horizontal and vertical orientation of the words are some of the choices on this platform.

<http://www.wordle.net/>



Drive Word Cloud—Chrome alternative for ChromeBooks.

<http://wordcloud.booogle.net/>



Animoto

is a video design platform that creates slide shows with music and built-in video styles. Many of the layout and creation tools are taken care of by the program so that the user only needs to "drag and drop" the photos. The resource includes an option for education that removes the watermark and increases the time limit allotment from the free version. Educators must first register for the free version, then "apply" for the upgraded educator version. <https://animoto.com/>

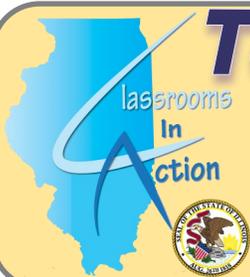
Even More Resources

There are many technology resources to support content curation for digital portfolios. The ones listed above are some of the best suited for K-5 student ability levels. Be aware that technology companies can often change over time and as of the printing of this document all resources are current and available. To find more resources and the latest up-to-date technology to support technology integration, please visit www.ilclassroomtech.weebly.com.

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|------------------------|-------------------------------|-----------------------------|
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Technology in Action—Elementary Digital Portfolios





Technology in Action Guide

Elementary English Language Arts



Practice Standards Connections

READING

Key ideas & details
Craft & structure
Integration of knowledge & ideas
Range of reading & level of text complexity

LANGUAGE

Conventions of standard English
Knowledge of language
Vocabulary acquisition & use

WRITING

Text types & purpose
Production & distribution of writing
Research to build & present knowledge
Range of writing

SPEAKING & LISTENING

Comprehension & collaboration
Presentation of knowledge & ideas



Reading Tools

NEWSELA

NewsELA has news articles that can be searched by topic and then printed in different Lexile levels. The same article on Lions can be printed in Lexile level 450 through 950 so that all students can read the content in a level that is comfortable for them and then be able to participate in a project or conversation on the subject of the article. Educators can also create text sets to assign to a class, create quizzes and include writing assignments.

<https://newsela.com/>

epic!

EPIC! has FREE elementary level eBooks!!!! Educators can create a free account with 36 students each. Students can check out books and read them on iOS or Android devices, ChromeBooks or any internet browser. Early Readers, Chapter Books, Non-Fiction, Read-to-Me Audio, and more. Educators need to sign up at the link provided here and choose the "get started" button within the picture. This is not the standard sign up. You will receive an email saying you have an educators account. If you receive an email that says "trial", call them to change to educator's account.

<https://www.getepic.com/educators>



Natural Readers is a text to speech online platform that converts any written text into spoken words. This web free version allows unlimited usage of the "free voices", supports PDF, Docx, RTF and Txt documents. Users can also Copy/Paste text into the box and select the play button at the top. There are 18 English (American and UK) voices, 8 Spanish, plus many more on the FREE platform. There are also 14 different "speeds" that can be set.

<http://bit.ly/2gIkC1l>

ReadWorks Digital

ReadWorks Digital is the partner resource to ReadWorks.org platform that offers reading comprehension support. The resource works on Windows, Macbooks, Chromebooks and iOS devices. Included on the website are Nonfiction and literary articles, Question sets, Vocabulary support, Paired Texts, Step Reads, Audio versions of articles, and an Article-A-Day™. <http://digital.readworks.org/>



Storyline Online is a website that incorporates the idea that reading to children has been repeatedly shown to improve their reading, writing and communication skills, logical thinking, concentration and general academic aptitude, as well as inspire a love of reading. The SAG-AFTRA Foundation records well-known actors reading children's books (James Earl Jones reading To Be A Drum) and makes graphically dynamic videos so that children around the world can be read to with just the click of a Storyline Online video book image. New books are added periodically. The offer alternative players if your school blocks YouTube, just select the "players" button on the top left of the page to choose. <http://www.storylineonline.net/>



Learn Out Loud is a platform that has free audio and video titles of literature in contemporary, classics, literary history, drama, poetry, and short stories to name a few. Listen to the Scarlet Letter or the Chronicles of Narnia read from the voice of an actor or the author themselves will give a new voice to the story. Most of the files can be downloaded and played later, all can be streamed.

<http://www.learnoutloud.com/Free-Audio-Video/Literature>



Language Tools



WordsWithFriends-EDU the game now allows students to play with their classmates. Educators create a closed classroom that only students with the class code can enter. The platform also has a dictionary component so students can check to see if what they want to play is actually a word or verify the meanings of words played by their classmates. This is an app for iOS and Android, but can also be played on the computer so ChromeBooks and laptops will work as well. Educators can also setup a "community" class and invite parents to play as well. <https://wordswithfriendsedu.com/>

vocabulary.com

Vocabulary.com this is a smart dictionary with an adaptive learning game that will have students mastering new words in no time. Educators can sign up for a free account and create as many classes as they need. The platform has ready made vocabulary lists from literature, historical documents, speeches, test prep, and news. Educators can edit those lists or create lists to study. The free version has limited tracking and statistics, but educators are able to monitor how the students are doing and what words they are struggling with. Schools and districts have the option to pay for an EDUCATOR EDITION. <https://www.vocabulary.com/>

Writing Tools



Little Bird Tales is a digital storytelling and lesson creation site intended primarily for kids in Pre K - 6th grade. Users can create stories, reports, interviews, podcasts, interactive lessons, etc. using their own photos, drawings, jpg images, text, and voice. The tales and completed lessons will playback in a slideshow style format, with audio (if recorded). Educators have a free account and can share the created books via email or as a "public" book. No downloads of the created book is available unless the account is a paid account. Currently the cost is \$24.99/ year for 1 educators and 20 students. <https://littlebirdtales.com/>



Storybird is an online writing platform that educators can create a class account and manage students where student emails are not required. Students can create stories/books using artwork/graphics provided by artists curated from Storybird. Books can either be simple "picture" books (K-5) to Long form Chapter books (5-9). Storybird does have a monetary component with the ability to purchase the books that the students have created. This is also the only way to "print" off the work that has been created by the students. PDF printing currently cost \$1.99 per story or by "credits" earned by parents purchasing books. (\$12.99 and up) <https://storybird.com/>



WriteReader is an ebook creator for students that haven't even started writing yet. Students insert a picture, either by taking a photo with a tablet or webcam, type how they think the words are written and then the "adult" type under their words the correct words. Students can also record themselves saying the words on each page. These books can be created online, or using an iOS / Android device. Ebooks can be shared via sending the link in an email. The books are hosted online and can be marked as private library. <https://writereader.com/>



Rhyme Zone is a simple platform that allows users to input a word or phrase, select search and then get a return words or phrases that rhyme or nearly rhyme. There are also options for synonyms, antonyms, homophones and many other choices. There are other advanced features available also. No login is required to use this platform. <http://www.rhymezone.com/?loc=bar>



Pobble 365 is a Picture a Day story starter with additional resources. The pictures are magnificent and thought provoking and come with activities that can be either shared on a projector or downloaded in the provided PDF's. Educators can also browse previous days photos and content if they are looking for a specific topic or concept connection. Below each photo there are sections with activities. <http://www.pobble365.com/>



Speaking and Listening Tools



Next Vista for Learning provides a library of free videos made by and for teachers and students everywhere. All content is licensed under Creative Commons Attribution. There are over 1800 videos on the website. Students can check on the latest "video challenge" to get ideas to create an entry and join the community. <http://www.nextvista.org/>



Padlet is a simple way to create and collaborate. It works like a sheet of paper where users can put anything (images, videos, documents, text) anywhere, from any device (pcs, tablets, phones), together with anyone. **New free accounts only have 3 boards, but can be redone to a new board. <https://padlet.com>



School Tube is a video platform for students and teachers to upload video creations. School Tube offers suggested educational websites that houses content for classrooms. This platform provides opportunities for students to share video work with an "authentic audience" in a controlled privacy environment. Many schools share daily news broadcasts and PSA videos. <http://www.schooltube.com/>



Haiku Deck is an online presentation slide creator that works on all platforms, There is also a ChromeBook and iPad app. Everyone can have a free account, however all slide decks created on the free account are public and can be seen and are searchable, so caution to what information the students are posting. Educators can create paid accounts that are private and have more options, currently the cost is \$5/mo. <https://www.haikudeck.com/>



edublogs allows for educators to create a class account and control the postings of the students. Students are also not required to have email accounts. *****UPDATE 2/2/2017 EduBlogs is now complete FREE**** All accounts now have complete access to all resources including more space, templates, teacher controls, privacy controls...etc. This makes EduBlogs a GOTO platform for classroom blogging sites for early elementary through high school! <http://edublogs.org/>



Blabberize is a platform that can be used to present information in a whimsical way. Whether it is telling a story that a student wrote in English class or retelling a tale of war from 1812 from a llama? or maybe a group of sheep? Students can take any photo, "cut" around the mouth, record their voice reading or saying anything and then Blabberize will do the rest. The platform will sync the cutout to match with the words being spoken and "talk" when played back. All videos can be saved and shared either embedded or to a hard drive/portable memory device. <http://blabberize.com/>

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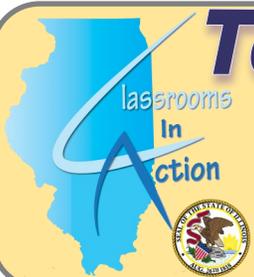
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Technology in Action—Elementary English Language Arts



Technology in Action

classrooms
In
Action



Elementary Mathematics

Practice Standards Connections

MP1—Make sense of problems and persevere in solving them.

MP2—Reason abstractly and quantitatively

MP3—Construct viable arguments and critique the reasoning of others

MP4—Model with mathematics

MP5—Use appropriate tools strategically

MP6—Attend to precision

MP7—Look for and make use of structure

MP8—Look for an express regularity in repeated reasoning

Social Emotional Learning Standards Connections— SEL Goal 2— use social-awareness and interpersonal skills to establish and maintain positive relationships—directly connects to MP3. Many of these resources can be used in a group or partner situation to build on both MP3 and SEL 2.

Online Activities



ILLUMINATIONS (from NCTM) website has a large collection of interactive activities/games for all grade levels and all standards. Educators can search by standard or grade level. Many of the activities can be used on an interactive whiteboard (smart-board or Promethean). No login is required to use the activities. There are also lesson plans available on the website to work in conjunction with the interactive platform. <http://bit.ly/2woYEqr>



Prodigy has content from all major topics and will seamlessly cover Grades 1 - 8 to help ensure students are ready for standardized testing. With a diagnostic test to place students in the correct grade, embedded assessments, and automatic differentiation, Prodigy ensures that each one of the students succeed at their own pace. All math, reporting, and access to the program is free. They do make money with an optional parent upgrade, which only unlocks extra game content (e.g., new hairstyles for a student's character), and has absolutely no impact on Prodigy's educational quality. <https://prodigygame.com/>



Refraction focuses on teaching fractions and discovering optimal learning pathways for math education. Refraction lets you bend, split, and redirect lasers to power spaceships filled with lost animals! Help free as many animals as you can by expanding your knowledge of fractions. <http://bit.ly/2woMBJQ>



The Math Learning Center's web/mobile apps are based on the visual models featured in the curriculum Bridges in Mathematics. All apps are available in two or more versions: a web app for all modern browsers, and downloadable versions for specific operating systems and devices (such as Apple iOS for iPad). All will work with a ChromeBook! <https://www.mathlearningcenter.org/resources/apps>



Math Snacks isn't a curriculum, but a series of activities you can use with the curriculum already being used in grades 4-8. Math Snacks materials address critical content including number sense, ratio, proportion, measurement, scale factor, and pre-algebra. Don't think of the animations and games as "free time activities." Each of these have been designed to be used as part of instruction. All Math Snacks products have lesson guides, and additional instructional resources. The games and animations can be used by students at anytime, there is no login required. Most are available in Spanish! <http://mathsnacks.com/index.html>



Number Frame



Number Pieces



Number Rack



Money Pieces



Math Vocabulary Cards

Mathematical Videos



Mathematics in Movies - This is a collection of movie clips in which Mathematics appears. The site is now in HTML5 video and should be accessible by all devices. If not, chose the direct video links. To include a clip into a presentation, chose the QuickTime version. A wide variety of genres and decades, some that students won't recognize but will certainly enjoy the connection. <http://www.math.harvard.edu/~knill/mathmovies/>



WatchKnowLearn is a video platform that has educational videos curated not only by the website developers, but users can also upload videos. The subcategory MATHEMATICS splits into every math content available, from math for young learners to calculus. Educators can create accounts and save videos to a playlist so they are ready when needed in the classroom. Most all are hosted on YouTube and educators are encouraged to review first. <http://bit.ly/2wp01W6>



Safe Share TV is a platform to watch YouTube without any additional videos or advertisements appearing on the screen. By copying and pasting the YouTube link into the box on the home page, the website will generate a new LINK to the video. This link will never expire and now will direct to a video display that removes all the unwanted items. Educators can now place this link in a PowerPoint or an assignment in GAFE (Google Apps For Education) that the students can select and they will not be shown "other" items. <http://safeshare.tv/>

Mobile Apps



10 Frame Fill provides students practice with recognizing additive "10 Families" (e.g., 1 and 9, 2 and 8, etc.). Set the 10 frame to fill in sequence or randomly. Use contrasting color chips to fill the 10 frame as users determine the answer. Select to show a corresponding number sentence. <http://apple.co/2wx6MFp>



Number Frames is an app that Use standard 5-, 10-, 20-, and 100-frames, or create custom frames up to 12 x 12. Choose from a variety of counters and colors. Drag single counters — or stacks of 5 and 10 — into frames or on to the workspace. Apply a 5s grid to frames to emphasize every 5th line and reinforce grouping by five. Use the drawing tools to annotate work and show understanding. Write equations and expressions with the math text tool. <http://apple.co/2wx4cPE>



Virtual Manipulatives use photos and an interactive white board to work with manipulatives in fractions, percent, and decimals. easy to manipulate for all ages. NOT A GAME, used for instruction and modeling. iOS only <https://apple.co/2lkhxh>



Thinking Blocks Addition teaches children how to model and solve word problems involving addition and subtraction. In this interactive tutorial, children are introduced to 6 problem solving models. The models help children organize information and visualize number relationships. <http://apple.co/2wwOggx>



Math Snacks HD is a math video app with 5 videos and includes learner's guides, comic book transcripts, and teacher's guides. Topics include Ratios, Number lines, units and proportions and scale factors. <http://apple.co/2wwP3hv>



Moose math teaches counting, addition, subtraction, sorting, geometry and more. While playing 5 multi-level activities in the Moose Juice Store, Puck's Pet Shop and Lost & Found, kids can earn rewards to help build their own city and decorate buildings. <http://apple.co/2wwlKdG>



Online Virtual Tools



Draw.io is an online flowchart tool that allows users to create any type of drawing using simple to complex shapes and diagrams. Numbers and text included so student could use this to show the process in completing an equation. The platform has built in shapes that can be dragged onto the page and aligned to build the chart. The drawing can be saved to Google drive, Dropbox or Onedrive or printed out. Users can create an account, but it is not necessary to use the tool. <https://www.draw.io/>



GeoGebra is dynamic mathematics for all levels of education that brings together geometry, algebra, spreadsheets, graphing, statistics and calculus in one easy-to-use package. GeoGebra is a rapidly expanding community of millions of users located in just about every country. <http://bit.ly/2v7fNRY>



Desmos is the best-in-class HTML5 graphing calculator, which millions of students around the world use for free. The platform also has activities on top of that calculator, helping students use a powerful tool to experience all the curiosity, beauty, and sense that math has to offer. Those activities were used so often by so many teachers around the world that they decided to create an Activity Builder, helping every teacher create digital math activities that equal and exceed the activities we create ourselves. Users can create an account to save graphs and data for works in progress. Graphs can be printed or emailed. (calculator platform can be changed into 33 different languages.) (iOS and Android apps available as well.) <http://bit.ly/2v7m1RW>



Daum Equation Editor - Online equation editor that will allow the user to save to Google drive, save as an image or text file, increase text and modify the color of different characters in the equation to help educators highlight portions of the instruction. <http://bit.ly/2v7AJ4P>



PhET Simulations from University of Colorado provides fun, free, interactive, research-based science and mathematics simulations. The simulations are written in Java, Flash or HTML5, and can be run online or downloaded to your computer. All simulations are open source. Simulations are all grade levels and subjects are physics, biology, chemistry, earth science and math. Users can play with the simulations without an account. Educators can use an account to keep track of students and simulations. <https://phet.colorado.edu/>



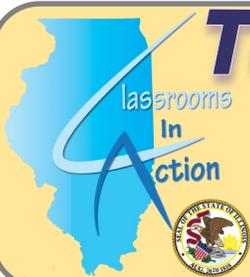
The National Library of Virtual Manipulatives (NLVM) is an NSF supported project that began in 1999 to develop a library of uniquely interactive, web-based virtual manipulatives or concept tutorials, mostly in the form of Java applets, for mathematics instruction (K-12 emphasis). Utah State University team is building Java-based mathematical tools and editors that allow us to create exciting new approaches to interactive mathematical instruction. The use of Java as a programming language provides platform independence and web-based accessibility. The NLVM is a resource from which teachers may freely draw to enrich their mathematics classrooms. <http://bit.ly/2v7j9V4>

Even MORE Resources

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





Technology in Action Guide

Elementary Science



Sample Standards Connections

When implementing technology into lessons and units, educators can connect to the content standards of the immediate subject, such as science, quickly. Connecting the tools within this document to the core disciplines of Life Science, Physical Science, Earth and Space, or Engineering can be the first step of Standards Connections. Taking a few steps further educators need to connect with standards outside of science. Here are a few that might be include with the tools here:

ELA *R.7* Integration of Knowledge and Ideas, *R.10*– Range of Reading and Level of Text Complexity, *L.6*–Vocabulary Acquisition and Use, *W.1-W.3*–Text Types and Purpose, *W.4-W.6*– Production and Distribution of Writing, *W.7-W.9*– Research to Build and Present Knowledge, *W.10*– Range of Writing, *SL.1-SL.3*– Comprehension and Collaboration

SEL—*Goal 1*– Self Awareness and *Goal 2*– Social Awareness/ Interpersonal Skills



Online Experiments/ Simulations



Experiment with Ecosystems (The Concord Consortium)
The goal of this activity is to give students the opportunity to “think like a scientist,” making hypotheses, doing experiments, making observations, and analyzing data. Students are encouraged to construct and conduct their own experiments with ecosystems comprised of grass, rabbits, and up to two predator species: hawks and foxes. <http://bit.ly/2Inf9Hb> **LIFE SCIENCE**



Journey North Class Study - This platform is a free, Internet-based program that explores the interrelated aspects of seasonal change. Through interrelated investigations, students discover that sunlight drives all living systems and they learn about the dynamic ecosystem that surrounds and connects them.

- Sunlight and the Seasons*: Children study seasonal change in sunlight in a global game of hide and seek called Mystery Class.
- Plants and the Seasons*: Children explore tulip growth in their own gardens, running an experiment that tracks the arrival of spring.
- Seasonal Migrations*: Children follow animal migrations. They observe, research, and report findings and watch journeys progress on live maps. <https://www.learner.org/jnorth/> **EARTH AND SPACE**



Molecular Workbench (The Concord Consortium) - The complete workbench is a downloadable program that can be modified by the educator and then the students can control the experiments more. However, there is now a selection of “online” HTML 5 experiments and simulations that can be utilized completely online and are Chromebook compatible. This is the link to those resources. (You can also link to the downloadable program and all of the resources available from this webpage on your class website.) <http://bit.ly/2lrxTcM> **PHYSICAL SCIENCE**



Algodoo is a unique 2D-simulation software from Algorix Simulation AB. Explore physics, build inventions, design games or experiment with Algodoo in science classes. With Algodoo students can create simulation scenes using simple drawing tools like boxes, circles, polygons, gears, brushes, planes, ropes and chains. Students can also add more physics in their simulation like fluids, springs, hinges, motors, thrusters, light rays, tracers, optics and lenses. (iPAD as well.) <http://www.algodoo.com/> **ENGINEERING**



Lunar Phase Simulator— The NAAP Lunar Phases lab demonstrates how the Earth-sun-moon geometry gives rise to the phases of the moon as seen from earth.

A distant view of an observer looking down on earth as well as a perspective of an observer looking into the sky are used in the simulator. (Astronomy Education at the University of Nebraska-Lincoln) <http://bit.ly/2m36iSo> **EARTH AND SPACE**



PBS Zoom Goldburger— A website simulation modeled after Rube Goldberg where the ZOOMers were challenged to design a machine that serves lunch to the ZOOM cast and crew. They've called it the Goldburger To Go, and they need your help to finish it. The website also has other resources on Rube Goldberg designs that students can investigate.

<http://to.pbs.org/2lMZlPh> **ENGINEERING**



Science Videos



Crash Course Kids! is a channel created by PBS Learning Media for elementary students with 105 science videos ranging from 4 minutes to 20 minutes in length. The topics covered match standards for 4th-5th grade, but are great for all elementary students and even a review for 6th grade science concepts.

<https://www.youtube.com/user/crashcoursekids>



SciShow Kids is a YouTube Channel that explores all those curious topics that make people ask “why?” Jessi and her robot rat, Squeaks, answer questions and explain fun, complex science concepts for young, curious minds. Whether conducting experiments, researching new questions, or talking with experts, there's always something new to discover with SciShow Kids, no matter what age the students are! <https://www.youtube.com/user/>



Safe Share TV is a platform to watch YouTube without any additional videos or advertisements appearing on the screen. By copying and pasting the YouTube link into the box on the home page, the website will generate a new LINK to the video. This link will never expire and now will direct to a video display that removes all the unwanted items. Educators can now place this link in a PowerPoint or an assignment in GAFE (Google Apps For Education) that the students can select and they will not be shown “other” items. <http://safeshare.tv/>

Research / Data Tools



Ducksters is a simple, K-5 student-friendly database option that includes history, science, geography, economics sports and fun facts. Resource pages are detailed but to the point making it easier for some students to maintain attention and not get frustrated with too much "text". Links to some educational games are on the website as well, so monitoring is essential. <http://www.ducksters.com/>



Kiddle is a visual search engine that returns SAFE results. Sites appearing in Kiddle search results satisfy family friendly requirements, as they filter sites with explicit or deceptive content. The search result will include 1-3 sites that are hand picked by the editors that are written just for kids, 4-7 sites that are simple and easy to read, and 8 or more that have expert content but may be harder to read. All results include a large thumbnail or graphic beside the text. <http://kiddle.co/>



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 experiment or polling situation and create a visual representation of the information much easier than a spreadsheet creation. <http://bit.ly/1OxeRx6>



Presentation and Publication Resources



Screencast-o-matic allows users to record on-screen activity and audio from a computer microphone. Students can open their MS Word or Google Doc essay or report and record their reflections or process on how they developed their hypothesis or experiment. The video can then be saved and uploaded to the class website. The same process could be done for any computer generated work, modeling how to research or conduct a search online, or doing a science experiment with an interactive model and explaining why the reactions are occurring. <https://screencast-o-matic.com/home>



ThingLink creates an interactive digital graphic by adding "dots" that pop up text or connections to websites, videos or more graphics. Users can upload photos, documents or any graphic and then add points anywhere on the item to show items of interest or further exploration. Students connecting to a science model may have linkable items to the research they have based their data or maybe an interactive experiment proving their hypothesis. <https://www.thinglink.com/edu>



The iOS and Android standard camera app can allow video recording. Students can either record themselves holding up their work and reflecting or hold the device while pointing to the work and record their reflections. The file can be transferred from the device either via cable or WiFi. Students could record their work with a partner or group as well.



Show Me app is a recordable white board where students can draw or write on the board while explaining their work. This a great way to show student mastery with student created math tutorials. Educators can upload images that students can write, show or reflect on. <http://apple.co/2eZ1fg>



Block Posters is a website to create posters from any picture file that can be printed on a standard printer. The website platform allows the user to upload any picture file and converts it to a PDF that is made of multiple pages that can be assembled to create a large poster. Users have control of the final size of the poster prior to the conversion and instructions are saved with the created PDF. <http://www.blockposters.com/>

Website HIGHLIGHTS



The Concord Consortium's Path Finder - Their STEM Resource Finder features some of the best free, open-source educational activities, models and software tools. Educators can search by keyword or filter by subject, grade level and type to find the right resources for learning goals. ****Educators will need to carefully consider where to include these resources in their curriculum to ensure they are aligned properly to their grade level standards.** <http://concord.org/ngss/>



StemRead is from Northern Illinois University (NIU). Carefully selected books rooted in science, technology, engineering, and math (STEM) topics that explore the science behind the fiction. A selection of activities to go along with each one, lesson plans and videos to support the books. Since the creators of this platform are in Illinois, they also offer PD opportunities and local contacts. Checkout their contact information and signup for their email list. <http://www.stemread.com/>



Virtual Biology Lab has three Biodiversity Ecology Labs for students to explore how changes can effect the habitats. There is an Island, Stream and Plant model to manipulate. No login is required, the graphics are great and work well with a projector. <http://virtualbiologylab.org/biodiversity-ecology/>



The Lawrence Hall of Science 24/7 Science is a website that has many STEM resources. In these interactives, use your hands, feet, eyes, ears, brain, imagination and cool tools to experiment, design, test and discover amazing things about the world around you. It's science and it's fun! <http://static.lawrencehalloffscience.org/kidsite/>



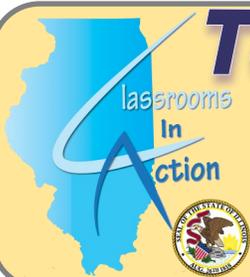
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Technology in Action—Elementary Science





Technology in Action Guide

Elementary Social Science



Standards Targets Connections

Inquiry	
Civics	Geography
Economics and Financial Literacy	History

Social Emotional Learning Standards Connections— SEL Goal 3—Demonstrate decision-making skills and responsible behaviors in personal, school, and community contexts



Inquiry Tools



Fact Monster includes an online almanac, thesaurus, dictionary, encyclopedia, atlas, and timelines. Student friendly and no logins are required to search. Great videos, subject areas as well - Science, Social Science, ELA, Math, etc. Does connect to educational games, so monitoring is essential.

<http://www.factmonster.com/>



Ducksters is a simple, K-5 student friendly database option. Includes history, science, geography, economics and some fun topics as well, sports and fun facts. Resources pages are detailed but to the point making it easier for some students to maintain attention and not get frustrated in too much "text". Links to some educational games, so monitoring is essential.

<http://www.ducksters.com/>



Factitious is a game that tests your knowledge of Fact or Fiction news. Can you tell real news from fake news? Simple platform that checks users knowledge of the news. The factual news articles can connected to the answers.

<http://factitious.ugamestudio.com/#/>



Recap—by Swivl is a free app/website tool that provides teachers with new, creative way to gather evidence of student thinking using video recordings.

Create and assign questions to a student, a group of students or the entire class to be answered during or after a lesson via the devices camera/microphone. This app works on iOS, Android, Chromebooks and desktop machines. <https://letsrecap.com/>

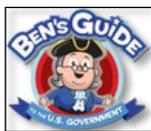


FactCheck.org is a website that monitors the factual accuracy of what is said by major U.S. political players in the form of TV ads, debates, speeches, interviews and news releases. The cover many current events in the nation and globally. Their goal is to apply the best practices of both journalism and scholarship, and to increase public knowledge and understanding.

<http://www.factcheck.org/>



Civics Activities



Ben's Guide to the U.S. Government, a service of the Government Publishing Office (GPO), is designed to inform students, parents, and educators about the Federal Government, which issues the publications and information products disseminated by the GPO's Federal Depository Library Program.

<https://bensguide.gpo.gov/>



My Hero Project has a mission of MY HERO that is to use media, art and technology to celebrate the best of humanity and to empower people of all ages to realize their own potential to effect positive change in the world.

The freely accessible, not-for-profit project is supported by visitors of all ages who share stories, art, and short films on our award-winning multimedia journal and digital library.

<http://myhero.com/teachersroom/index>



iCivics is a non-profit organization dedicated to reinvigorating civic learning through interactive and engaging learning resources. The iCivics games place students in different civic roles and give them agency to address real-world problems and issues. They are rooted in clear learning objectives and integrated with lesson plans and support materials. Educators can create accounts and then classes with student usernames and passwords, create assignments and monitor student completion.

<https://www.icivics.org/>



Law Related Education is developed by the Texas State Bar and has many resources for educators. Once on the website there is a "games" page that includes content on American symbols, guessing occupations, the preamble, the pledge of allegiance, branches of the government and the constitution. There is also a page called Justiceville that has 4 more games for the early elementary students.

<http://bit.ly/2vn9H05>

Geography Activities



The Global Awareness Map- There are 194 countries around the world. Find out more on each country's people, government, religions, US military presence and current issues. Students can select a region and start exploring.

<http://www.globalawarenessmap.org/>



National Geographic Kids website has Earth and space, Life Science and Physical Science resources in the form of videos, research information all at an elementary level.

The platform has engaging material and connections to content standards. Lesson ideas and resources for educators are available on all categories. Videos and games available on many geography topics.

<http://kids.nationalgeographic.com/>



Economics and Financial Literacy Activities



Admongo—Everywhere you look, you see advertisements—not just on TV and online, but on buses, buildings, and scoreboards. Do your students have the critical thinking skills to understand ads, what they're saying, and what they want kids to do? <http://bit.ly/2vmUOuG>



Energy Star Kids website has resources for educators and students on the use of energy, different forms of energy, energy conservation and how students can help in the environment and to save energy at home and in the community. Mostly geared towards elementary and middle school, but some facts could be relevant to high school research needs.

<http://bit.ly/2vg3nap>



h.i.p Pocket Change shows students with coins, we literally carry the past in our pockets. The games, stories, and other activities bring coins to life. They present not only the extraordinary people pictured on the coins, but also the generations of citizens who have carried this change. <http://bit.ly/2vfTmdn>



epals Global Community® pairs educators and students around the world in exciting project-based learning for language learning practice and cultural exchange. Our global challenges bring together learners to apply important concepts, from STEM to cultural studies, through events such as the Smithsonian Invent It! and Folklife challenges.

<http://www.epals.com/#/connections>



IL Geographic Alliance -The interactive maps which cover a wide variety of topics including physical geography, historical geography, population, cultural processes and patterns, political geography, agriculture and rural land use, industrialization and economic development, cities and urban land use, as well as general reference maps. <http://arcg.is/2vmVD6F>



Pod To Plate - Illinois Ag in the Classroom sponsored website has many interactive resources to help students understand the agriculture within the state of Illinois. Videos, games, online resources and lesson plans for grade levels 3rd-8th. Largest collection of soy bean resources from planting through production in Illinois. <http://bit.ly/2vgcqs8>



EconEdLink—Meet the students where they are by using technology to help teach economics and financial literacy. Simulations, games, videos and other interactive resources make education fun and engaging for the 21st century learner.

<http://www.econedlink.org/tools/1>



Financial Literacy for Everyone allows students to test their money skills and give a brain a workout with these fun and educational games. Elementary to high school will find games to help with understanding spending and saving.

<http://www.practicalmoneyskills.com/play>

History Activities



Jamestown Online Adventure allows students to be the Captain of the Jamestown Colony: Can they do any better than the real colonists? They can ask their fellow colonists and the Native Americans for advice. Be careful, though, because some advice is better than others! There is no login for the game and it can not be saved unless educators download and save the program to the computer.

<http://www.historyglobe.com/jamestown/>



America's Story- The site was designed especially with young people in mind. Students can explore Amazing Americans, Jump Back in Time, Explore the States, Join America at Play, or See, Hear and Sing with exciting entertainers. No login required to explore the great collections. <http://bit.ly/2vmHcQd>



The TimeMap of World History is a comprehensive atlas and encyclopedia of world history. It contains over 650 maps and 1,000 pages of supporting text. It is designed to be easy to navigate, through both time and space. It is structured to make the complex mesh of history accessible and comprehensible. <http://www.timemaps.com/history>



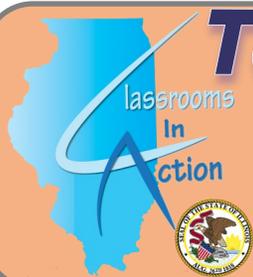
Timeline JS3 is a simple timeline creator that hosts the produced timeline that can be embedded on any website or block. The timeline can be created using a simple Google spreadsheet and the website gives educators the template to start with and a video tutorial. Multimedia can be included in the timeline such as video and website links. Timelines can also be shared via Google Plus, Gmail, Facebook or Twitter. <http://timeline.knightlab.com/>



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Technology in Action Guide

ISTE Standards For Students

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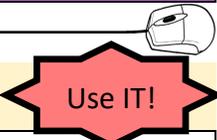


Standards for Students

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:



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:



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:



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/>

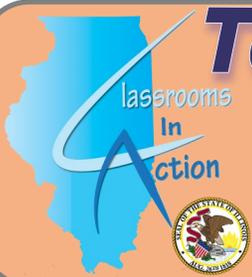
ePals has some free resources to connect with classrooms around the world for specific projects or just communication. <http://www.epals.com/#/connections>

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

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Technology in Action—ISTE Standards for Students





Technology in Action Guide

ISTE Standards For Educators

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Standards for Educators

Learner	Leader	Citizen
Collaborator	Designer	Facilitator
Analyst		



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.



Twitter Chats are scheduled for everyday of the week on many topics of Edtech...many are subject specific. Educators can just "listen in" or fully engage in the conversation. The link will take you to a complete list and schedules, some are weekly and others are once a month. Follow on your phone or use TweetDeck to follow on a computer. Some notable hashtags to follow: #Edtechchat, #ELLChat, #ILEdchat and #ICEilchat. (The last two are Illinois managed.) <http://bit.ly/2gvnAGO>



Illinois Classrooms in Action website has PD opportunities in many subject areas, Professional Learning Networks in ELA, Math, Science, Social Science and Climate & Culture. Also available is an online platform called *OnlineImpact* which offers PD opportunities in a facilitated online platform for EL Support, Math Practices, Social Science, Science, Close Reading and Technology. All courses are online and offer CPDUs upon completion. <http://www.ilclassroomsinaction.org/>



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.

Educators can create a shared space for their local colleagues to explore and collaborate on new technologies incorporated into the classroom. Leaders can create a location for colleagues to view and share ideas on how to incorporate a new tool into their grade level and population of students. Website platforms such as Weebly or Google Sites can be a valuable resource to share this information and allow educators to view and respond at anytime. Blogs create a fantastic way to communicate about technology when there isn't any other time.

All of these resources offer a free educational account:



<https://education.weebly.com>



<http://edublogs.org/>



<https://sites.google.com>



<https://edshelf.com/>



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.



Digital Citizenship isn't just for the students, educators need to model the ethics as well. CommonSense media's digital citizenship curriculum not only is grade band specific, but also includes many resources for teachers and parents to help with internet concerns.

<https://www.commonsensemedia.org/educators/digital-citizenship>



ePals is connecting classrooms and students in unique "experiences" on their website. Connect with another classroom to exchange recipes, explore how media is used or setup a Pen Pal communication...in another language maybe. The platform has both free and paid components.

<http://www.epals.com/#/exploreExperience>

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.

 **Skype in the classroom** allows educators to bring in experts, virtual fieldtrips and “mystery” Skypes. Microsoft Innovative Educator page has a variety of ways to connect around the world. A mystery Skype allows students on both sides to virtually discover where each class is located using questioning techniques. Resources available to set all of this up. <http://bit.ly/2gyv354>

 **Seesaw** is online platform that empowers learners, allows feedback from peers and educators and connects parents to what is happening day-to-day in the classroom. Educators can create a classroom account and have parents join. They see only what their student is submitting, educators feedback and parents can offer feedback to be co-collaborators. <https://web.seesaw.me/>



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.	



The SAMR model of integrating technology can assist educators in developing authentic learning activities. This instructional design calls for S-Substitution, A-Augmentation, M-Modification or R-Redefinition of a lesson with the incorporation of technology. This is a link to an explanation video created by students. <http://bit.ly/2gwug7J>

Personalized learning can be assisted with technology in many ways....**Google Classroom** is an easy way if educators are in a Google School. Another resources is **PowerMyLearning**. It allows for specific “playlists” of activities to be assigned to students either as a class or individually. PowerMyLearning: <http://bit.ly/2gxpEhv>



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.

Facilitating students’ understanding of how an assignment/process is going to be assessed is an excellent way to help them take ownership in their learning goals and outcomes. Teaching students to develop and utilize rubrics to assess their learning will take it even further. Two technology tools for creating rubrics are **QUICK RUBRIC** <https://www.quickrubric.com/> and **RUBISTAR** <http://rubistar.4teachers.org/index.php>. No account is needed for either unless users would like to save them versus just printing. Quick rubric is the simpler of the two.



Utilize technology to offer students many different avenues to learning the content. **Edpuzzle** allows for educators to upload or connect to videos and then place questions for students to answer or reflect on the content being presented. This can be accomplished in class or when using a “flipped” classroom approach. The platform can be used by students anonymously or by signing in to track answers. <https://edpuzzle.com/>



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.	



Recap—Reflection by students and timely, effective feedback by educators can be accomplished on this platform. The app is available on all devices, including ChromeBooks! Educators can pose questions, lesson...etc. Students can also take a picture or video recording of their work and record in writing or audio their reflections. Educators can use their phones to leave timely feedback. <https://letsrecap.com/>



EdCite is an assessment platform that has a variety of analytical reports. The platform allows educators to create assessments/assignments that have advanced technology response abilities that match what most state assessments are including. Users can practice using the tools so when it is time for testing students will already be comfortable with the technology. Educators can control the questions and get rich data to inform their practice. <http://www.edcite.com/>

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Technology in Action

classrooms In Action

Open Educational Resources

Open Educational Resources



OER Definition

Open Educational Resources (OER) are freely accessible, openly licensed materials used for teaching, learning, and assessment purposes. OER can be used without cost and can be modified and redistributed without violating copyright laws. Licensed under and open license that allows you to reuse, revise, remix, and redistribute.



Illinois Open Education Platform



IOER provides you with open, standards-aligned educational and career content. Use our tools to find, share, curate, and create resources. Users can like, rate, comment on and follow resources. IOER offers easy-to-use, no-cost, immediate online access to education and career resources and tools for individuals, schools, and organizations. No strings attached, no training required! Check out #IOER resources right now, and sign up for free to access powerful features.

Find education and career Resources for yourself, your classroom, or your organization using IOER's powerful search!

Leverage user-curated online libraries to get straight to the best the web has to offer!

Create your own customized collections of online content with IOER's digital Libraries! More than just bookmarks, IOER Libraries let you organize your favorite resources and share them with your friends, co-workers, students, and more!

Share resources. Find a site we don't have yet? Create your own excellent content and want to use it with our system? IOER's quick and easy tagging tools have you covered! Use IOER's embeddable widgets to share IOER content with the world from your own website! <https://ilsharedlearning.org/>



Multiple Content Classroom Resources

CTE ONLINE

CTE Online is the California resource devoted to connecting educators and leaders within the unique field of Career and Technical Education to quality curriculum models, shared communities of practice, and professional development tools that emphasize the role rigorous academic skills play in supporting students' pursuit of industry- and career-related coursework. Almost 60 Model CTE Online STEM Integrated Projects. Over 3,000 Lesson Plans aligned to CTE Standards, Common Core and Next Generation Science Standards, Over 50 CTE Model Course Outlines. Professional Curriculum Development Tools. Over 20,000 Instructional Resources <https://www.cteonline.org/>



Georgia Virtual Learning OER shared learning website has virtual OER content mostly MS and HS level courses. Science and History content include AP courses.

There is also a Spanish I course, Banking, Finance, Art History and Digital Citizenship course. Limited on ELA and Mathematics, but high school grade level is available. Since the platform is interactive with handouts available, it can be a virtual learning experience. <http://www.gavirtuallearning.org/Resources/SharedLandingPage.aspx>



Project GUTS is a science, technology, engineering and math (STEM) program for middle school students based in Santa Fe, New Mexico and serving districts nationally. Growing up thinking scientifically means

learning to look at the world and ask questions, develop answers to the questions through scientific inquiry, and design solutions to their problems. The platform has full units and lessons that connect to standards in NGSS, Computer science, Math and ISTE standards for students. All educators can email for login access, even if you are not in Santa Fe! They have collaborated with many countries and want to share this curriculum with the world. They have been offering a teacher online course at least once a year and having a login is the best way to be connected. <http://www.projectguts.org/>

UnboundEd

UnboundEd - This platform has taken Engage NY curriculum and added some other pieces in an easy to use menu system. This starting page allows the educator to select ELA / Math, and then grade level. Educators can dive down into the details of the units or download the entire piece. Simple to do a search on topic ideas as well. https://www.unbounded.org/explore_curriculum



Orange Grove is Florida's **Educational Resource Repository** of lessons, free e-textbooks, videos, pictures, research and much more curated and created by teachers. Educators do not need to be in Florida to use this search platform or the items found. All items can be downloaded as a guest user. Users outside of Florida cannot create an account and save resources to an online account, but can save them to a personal computer. K-12, Higher education and Educator resources....many subjects available! <https://florida.theorange Grove.org/og/home.do>



EngageNY is New York State Education Department's platform of open educational resources for incorporating CCSS in ELA and Mathematics for P-12. They have also just added a toolkit for Social Science. There High school mathematics is based on course structure not integrated mathematics pacing, however all content is within the courses. <https://www.engageny.org/>

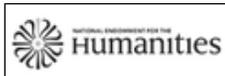
Content Specific Resources



ReadWorks.org is a platform that provides K-8 (some resources for upper grades) educators with many resources to support reading comprehension. Educators can create an account and collect their favorites in an online "binder" to make managing the files easier. Content is searchable by topic, standard, grade level or keywords. The resources available are Nonfiction and literary articles, Question sets, Vocabulary support, Paired Texts, StepReads, Audio versions of articles, Article-A-Day™, Comprehension Units, Skill and Strategy Lessons and Units, Novel Study Units. <http://www.readworks.org/>



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EDSITEment is a resource for the humanities on the web. A library of lesson plans on Art & Culture, Foreign Language, History & Social Science, and Literature and Language Arts. No account is necessary and educators can search by topic or standard. There are student resources as well to include interactive activities. <http://edsitement.neh.gov/>



CK-12 is a platform that has free online textbooks, called FlexBooks. Educators can use the books already developed or pick and choose chapters to create their own flexbook. Books can be downloaded as a pdf or ebook for use on ereaders, computers, or tablets...even printed out if necessary. Digital is best however since the books have links to multimedia content such as videos and interactive content. Most books are science and mathematics. A few engineering, technology, history, and English books are online as well. Educators can search by grade or subject area. When you first access the website the default is "student version". Click the button at the top of the screen to switch to "teacher version" to get the most out of the search and textbook choices. <http://www.ck12.org/>



Mathematics Vision Project has curriculum resources for Math I, II, III classes. Using rich tasks to explore, ponder and question ideas students will work together to learn math in new ways. Other math resources available as well.

<http://www.mathematicsvisionproject.org/curriculum.html>



Next Gen Personal Finance offers a free online curriculum of 65+ complete lessons and 200+ standalone activities you can access from anywhere. Financial literacy lessons are available on this website in Google doc form as well as standard Word. Many grade levels available, but mostly MS/HS.

<https://www.ngpf.org/>



Utah Middle School Math Project is a University of Utah partnership project for 7th and 8th grade math that has developed a curriculum for each grade level. The platform has student resources to include a textbook and workbook for 7th and 8th grade. (Including a PARENT WORKBOOK for the chapters!) The teacher resources are password protected, there is a contact email on the website, it may be possible to contact for the password if the website is monitored. The resources are just the answers to the student workbook.

<http://utahmiddleschoolmath.org/>



Math supports for EngageNY to include:

This collection of resources and materials from all over the United States support implementation of the EngageNY Math curriculum. Find links to compacted pacing guides, video lessons, parent support materials, and free printable templates from SMc Curriculum. Many parent resources and homework resources in Spanish.

<http://ccssmathactivities.com/engage-ny-support/>



Curriculum Pathways was created by teachers for teachers. They have online learning, strategies, standards connections, plan books and several "at a glance" documents to assist educators in instruction. Resources can be searched by discipline (including Spanish lessons), by grade band level or standards. (CCSS, NGSS plus State Standards...including the foreign language standards.) Users will need a free login to gather resources.

<https://www.curriculumpathways.com/portal/#>

Even MORE Resources

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Technology in Action— Open Educational Resources





Technology in Action Guide

Secondary Digital Portfolios



Definition

A digital portfolio is a computer or web based collection of student performance over time. Portfolios provide a window into student learning. A portfolio should showcase both student achievement and student learning or growth. To demonstrate growth, a portfolio will often include similar work done over the course of several months or years.

The student portfolio should include content chosen by the student with the clear understanding that the items must include examples of their best performances, demonstrations of

achieving a particular objective, and examples showing personal and academic growth. The content should include a wide range of skills and abilities to provide clear demonstration of what the student knows and understands about their ability.

One of the most important elements in a portfolio can be the student's reflection on their work. Students should include reflections on each performance to clarify why that selection is included in the portfolio. This is perhaps the most valuable part of the portfolio, since it provides a much clearer window into the learning of each student.



Standards Connections

ELA: Speaking and Listening standards SL.2, SL.4, SL.5

Fine Art: Standard Using a Personal Portfolio VA.PR4, VA. PR5

Math: Practice standard 4 Modeling with Mathematics

Social Emotional Learning: Standard Goal 1– Developing Self Awareness —Goal 1—Develop Self-awareness related to academic goals

Social Science: Standards for Developing Inquiry skills



Uses

Student-Led Conferences— Creating a digital portfolio of student selected work to present during a student led conference allows students to take ownership of their learning. Not only can students share where they excel in their academics, but they can reflect on their growth from the beginning of the quarter and even discuss where they may still be struggling by sharing the artifacts. Teachers can guide the selection of the portfolio artifacts so that the items included reflect the whole academic and social picture of the student.

Transition/Career —Creating portfolios in preparation to transition to the next academic level, college admissions or job applications will allow students to share a complete representation of who they are in academics and in a community context. Students building this type of portfolio will be able to identify the skills and credentials required to enter a particular profession (or next grade level) and begin to set long-term academic/career goals. The portfolio can assist them in planning and reflecting on the goals as they progress.



Resources—Digital Portfolios



Weebly website builder is a simple “drag and drop” tool that has an educational account option that allows for a free account that educators can use to create as many student websites as needed. The educator can also create one website and assign a specific page to individual students by assigning them as editors to only that page. Weebly websites can be password protected so visitors can be controlled. Caution students on cyber safety and posting personal information, names can be limited to first name, last initial when public communication is not needed for the portfolio.

<https://education.weebly.com>



Google Sites website builder is an intermediate level website builder that can be integrated with Google classroom. This will allow parents to see the websites while connected to their students accounts and teachers within the same school to view them as well. Of course making the site public will allow anyone with the link to view the website as well. There are many resources available on the web to customize a website within Google sites and many video tutorials to help educators and students to learn how to use the platform. <https://sites.google.com/>



Seesaw— <http://web.seesaw.me/> - This is a student driven digital portfolio system that allows students to independently document what they are learning at school. Educators create classes within the platform. Students can be entered into the classes or teachers can give a class code to the student to "self join". Students can capture learning with pictures and videos (currently just iOS for videos), import documents and add comments. Student work can be shared with the class and other students can comment. (Educators monitor the comments prior to being displayed to the class on the "Facebook like feed".) The Seesaw platform includes the following features:

- ◇ Google Classroom integration
- ◇ All mobile device apps (Kindle Fire!)
- ◇ Chromebook compatible
- ◇ Multimedia tools built-in
- ◇ Integration with 100s of apps
- ◇ Free parent access
- ◇ Class blog (can be public or private)
- ◇ Printing with custom QR codes
- ◇ 2 teachers can share a class
- ◇ Teachers can have 10 classes
- ◇ Portfolios can be downloaded to a CD
- ◇ Many webinars for training

Creating and Documenting Student Artifacts

Websites and Online Resources



Screencast-o-matic allows users to

record on-screen activity and audio from a computer microphone or computer sound. Students can open their MS Word or Google Doc essay or report and record their reflections or process on how they developed their story. The video can then be saved and imported to the portfolio. The same process could be done for any computer generated work, modeling how to research or conduct a search online, or doing a science experiment with an interactive model and explaining why the reactions are occurring.

<https://screencast-o-matic.com/home>



ScreenCastify—Chromebook compatible screen capture extension that will allow users to record on-screen activity including audio from either the microphone or computer sound.

<http://bit.ly/2GqrXdm>



Adobe Spark is a video creation tool that can be used on any device, Windows computer, Chromebook, and mobile device (even a phone!) Projects are saved online so students can access their project at anytime from a different device to edit and continue to work. The editor can import pictures, record video, add sound and music. The platform has many educational tutorials to guide educators in implementation and use.

<https://spark.adobe.com/>



Animoto is a video design platform that creates slide shows with music and built-in video styles. Many of the layout and creation tools are taken care of by the program so that the user only needs to “drag and drop” the photos. The resource includes an option for education that removes the watermark and increases the time limit allotment from the free version. Educators must first register for the free version, then “apply” for the upgraded educator version. <https://animoto.com/>



Analyze My Writing website tool can assist students in developing the written content placed on the portfolio websites. The tool will return an analysis of any writing that is pasted into the text box on the page. The platform will return information for basic text statistics, common words and phrases, readability, Lexile density, passive voice, cloze text, word-sentence-character counts, use of punctuation marks, and word/sentence lengths.

<http://www.analyzeemywriting.com/>



Easel.ly is a platform to create infographics from templates provided or design users own with guidance. Website offers both free and paid options with an educational pricing discount. The free option has 60 images and 10 font styles. Students can use this platform to show accomplishments outside of school, participation in community events or activities they would like to pursue in the future. <https://www.easel.ly/>



ThingLink creates an interactive digital graphic by adding “dots” that pop up text or connections to websites, videos or more graphics. Users can upload photos, documents or any graphic and then add points anywhere on the item to show items of interest or further exploration. Within a portfolio students might create a Thinglink for an art project or science model. After taking a photo of the artifacts students could identify areas within the media of an art project and make connections to the inspiration or selection of colors. Students connecting to a science model may have linkable items to the research they have based their data or maybe an interactive experiment proving their hypothesis.

<https://www.thinglink.com/edu>



MyEbookMaker creates Ebooks with this simple platform that allows users to upload a picture for the book cover, enter a Title and Author(s), organize chapters, enter or copy text into a standard text editor or templates. Many formatting option available including graphics, tables, flash video and iFrames. Accounts are free and files can be downloaded into an Epub format that can be transferred directly to e-readers, phones or tablets, hosted on website for downloads or read online by browser supported eReaders. Students can create an Ebook of their essays, stories and poetry...etc.

<http://www.myebookmaker.com/>



Supporting Resources

There are many technology resources to support content curation for digital portfolios. The ones listed above are some of the best suited for 6-12th grade student ability levels. Be aware that technology companies can often change over time and as of the printing of this document all resources are current and available. To find more resources and the latest up-to-date technology to support technology integration, please visit www.ilclassroomtech.weebly.com.

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Technology in Action Guide

Secondary English Language Arts

Practice Standards Connections

READING

Key ideas & details
Craft & structure
Integration of knowledge & ideas
Range of reading & level of text complexity

LANGUAGE

Conventions of standard English
Knowledge of language
Vocabulary acquisition & use

WRITING

Text types & purpose
Production & distribution of writing
Research to build & present knowledge
Range of writing

SPEAKING & LISTENING

Comprehension & collaboration
Presentation of knowledge & ideas

Reading Tools

 **NewsELA** has news articles that can be searched by topic and then printed in different Lexile levels. The same article on Lions can be printed in Lexile level 450 through 950 so that all students can read the content in a level that is comfortable for them and then be able to participate in a project or conversation on the subject of the article. Educators can also create text sets to assign to a class, create quizzes and include writing assignments.

<https://newsela.com/>



Google Lit Trips are downloadable files that mark the journeys of characters from famous literature on the surface of Google Earth. Along the way, place-marks with pop-up windows contain "just in time" resources including relevant media, thought-provoking discussion starters, and links to supplementary information about "real world" references in that portion of the story. Our focus is on creating engaging and relevant literary experiences for students. K-12 and Higher education titles available. Educators can also request titles and work with the creators to help build new content.

<http://www.googlelittrips.org/>

 **ReadWorks Digital** is the partner resource to ReadWorks.org platform that offers reading comprehension support. The resource works on Windows, Macbooks, Chromebooks and iOS devices. Included on the website are Nonfiction and literary articles, Question sets, Vocabulary support, Paired Texts, Step Reads, Audio versions of articles, and an Article-A-Day™. <http://digital.readworks.org/>

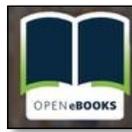
 **Learn Out Loud** is a platform that has free audio and video titles of literature in contemporary, classics, literary history, drama, poetry, and short stories to name a few. Most of the files can be downloaded and played later, all can be streamed.

<http://www.learnoutloud.com/Free-Audio-Video/Literature>

Language Tools

 **WordsWithFriends-EDU** the game now allows students to play with their classmates. Educators create a closed classroom that only students with the class code can enter. The platform also has a dictionary component so students can check to see if what they want to play is actually a word or verify the meanings of words played by their classmates. This is an app for iOS and Android, but can also be played on the computer so ChromeBooks and laptops will work as well. Educators can also setup a "community" class and invite parents to play as well. <https://wordswithfriendsedu.com/>

 **Tween Tribune** (TeenTribune, TweenTribune, TTEspañol and TTJunior) (hereinafter collectively referred to as "Tribune") is a free online educational service offered by the Smithsonian for use by K-12 grade Teachers and students. Tribune consists of daily news sites for kids, tweens, and teens, and includes text, photos, graphics, and audio and/or video materials prepared by the Smithsonian and others about current events, history, art, culture and science. Tribune also includes lessons, instructional and assessment tools, and opportunities for the registered users to communicate with other participants. Articles can be assigned based on the readers Lexile level or printed out by reading level as well. <http://tweentribune.com/>

 **Open eBooks** is a partnership between Digital Public Library of America, The New York Public Library, and First Book, with content support from digital books distributor Baker & Taylor. This effort is made possible by generous commitments of publishers with funding support provided in part by the Institute of Museum and Library Services and the Alfred P. Sloan Foundation, and is part of the White House ConnectED Initiative. Educators that are in the following groups qualify: Head Start, Title I or Title I eligible School, USDA Food and Nutrition Program, Federally Qualified Health Center, Title VII recipient, Military family support program, Library with an E-rate of 90, A program primarily serving children with disabilities (**INDIVIDUAL SPECIAL EDUCATION TEACHERS!!**), A program where at least 70% of children come from low-income families. Students can check out 10 books at a time...parents can have the app on their phones, tablet...etc. Students can login on up to 6 devices and access all their books. <http://openebooks.net/>

 **Wordflex Touch Dictionary** is not the ordinary dictionary or thesaurus! Wordflex "branches" out into a word tree when a word is typed into the search bar, select a branch, then more branches emerge and so on. The words with the branches also have pronunciations (British and American), meanings, root words, origins, etc. Users could easily get lost within the branches. One of the other unique components is the ability of this app is to send (email) a poster of the word tree or save it. The user is also able to swipe around the tree back to where they started or anywhere within the tree they have built. Devices -iPad <https://apple.co/2L7Wdwx>

Writing Tools



Book Creator, the interactive ebook creator that was only available on Apple is now available online in Chrome. (YES, this will work on ChromeBooks!) The free version allows for one educator library and 40 active books. (If an educator is a tech/lab teacher, set up an account for each "home" teacher for your students.) Books can include comics, audio, video, drawings and can be published online. Educators can create their own books for use in the classroom on iPad as well!) <https://bookcreator.com/>



Rhyme Zone is a simple platform that allows users to input a word or phrase, select search and then get a return words or phrases that rhyme or nearly rhyme.

There are also options for synonyms, antonyms, homophones and many other choices. There are other advanced features available also. No login is required to use this platform.

<http://www.rhymezone.com/?loc=bar>



Pobble 365 is a Picture a Day story starter with additional resources. The pictures are magnificent and thought provoking and come with activities that can be either shared on a projector or downloaded in the provided PDF's. Educators can also browse previous days photos and content if they are looking for a specific topic or concept connection. Below each photo there are sections with activities. <http://www.pobble365.com/>



Hemingway App website can be a little confusing at first. The page loads with a sample of what the APP can do, showing a paragraph with highlighted text and a KEY on the right hand side explaining what the different colors relate to as far as editing. This is actually where the user is to type (paste) in their writing that they wish to have evaluated. There is a download button on the far left that allows users to purchase a desktop version of the software. However, you can use a FREE version by simply typing in the text or pasting in the document. Font styles and formatting buttons are at the top of the screen. Once the text is finished, select "EDIT" from the location on the right and the APP will evaluate the writing.

<http://www.hemingwayapp.com/>



Write About is a platform to connect students to a community of writers and an authentic audience to develop growth through the entire writing process. Hundreds of ideas filtered by grade level, category or keyword, quickly create and share ideas with your own images, text and voice. Educators can create a closed group with another class across the country or within the same school. The free account has some limitation on the number of posts, (enough for a unit or lesson). However, if this is something that fits in with an educators entire school year the full version is currently \$24.95/yr for the whole class. <https://www.writeabout.com/>



Speaking and Listening Tools



Next Vista for Learning provides a library of free videos made by and for teachers and students everywhere. All content is licensed under Creative Commons Attribution.

There are over 1800 videos on the website. Students can check on the latest "video challenge" to get ideas to create an entry and join the community. <http://www.nextvista.org/>



School Tube is a video platform for students and teachers to upload video creations. School

Tube offers suggested educational websites that houses content for classrooms. This platform provides opportunities for students to share video work with an "authentic audience" in a controlled privacy environment. Many schools share daily news broadcasts and PSA videos. <http://www.schooltube.com/>



edublogs allows for educators to create a class account and control the postings of the students. Students are also not required to have email accounts. *****UPDATE

2/2/2017 EduBlogs is now completely FREE**** All accounts now have complete access to all resources including more space, templates, teacher controls, privacy controls...etc. This makes EduBlogs a GOTO platform for classroom blogging sites for early elementary through high school! <http://edublogs.org/>



Adobe Spark is a resource for creating videos, pages and audio. It is unique because users can start in the online platform, then continue on an iPad, then switch to using a Chromebook, etc. Adobe also hosts or stores all the files for easy access from any location, so students can work from home. (Users may use a portable storage device). To further explain the educational uses, Adobe has created a guide for educators that can be found here as well. It also includes many lesson ideas. <https://spark.adobe.com/>



Lucidpress makes it easy for all students — from those in elementary school to those in advanced digital communication courses — to create stunning content that brings their big ideas to life. Teachers can also create visual learning aids, posters, and other teaching collateral with just a few clicks of the mouse. Built in templates are available and the platform includes connection to images that are copyright free. There is an educational account just for teachers and their students. Scroll to the bottom of the linked page to get started. If you do not automatically get enrolled in the educational platform, don't hesitate to follow the instructions to request it. (Email accounts with .edu or k12.us.il should automatically populate. If you use another type of address, request access. There is a Google App that will integrate with Google Classroom and a SSO system. <https://www.lucidpress.com/pages/usecase/education>

Even MORE Resources

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- ◆ Computer science
- ◆ Learning management systems
- ◆ Mobile apps
- ◆ Research tools
- ◆ Social Emotional Learning
- ◆ Technology terms

Technology in Action—Secondary English Language Arts

The screenshot shows the 'Tech for Teachers' website. The left sidebar contains a navigation menu with categories: Assessment, Instruction, Learning, and Research. The main content area has a 'Welcome!' message and a search bar. Below the search bar, there are search results for 'Assessment Tools' and 'Instructional Strategies'. The search results include a list of resources with titles like 'Assessment Tools', 'Instructional Strategies', 'Learning Management Systems', 'Mobile Apps', 'Research Tools', 'Social Emotional Learning', and 'Technology Terms'. The search bar at the top right contains the text 'SEARCH' and a magnifying glass icon.

Technology in Action Guide

Secondary Mathematics

Practice Standards Connections

MP1—Make sense of problems and persevere in solving them.

MP2—Reason abstractly and quantitatively

MP3—Construct viable arguments and critique the reasoning of others

MP4—Model with mathematics

MP5—Use appropriate tools strategically

MP6—Attend to precision

MP7—Look for and make use of structure

MP8—Look for an express regularity in repeated reasoning

Social Emotional Learning Standards Connections— SEL Goal 2– Use social-awareness and interpersonal skills to establish and maintain positive relationships—directly connects to MP3. Many of these resources can be used in a group or partner situation to build on both MP3 and SEL 2.

Online Activities



Illustrations (from NCTM) website has a large collection of interactive activities/games for all grade levels and all standards. Educators can search by standard or grade level. Many of the activities can be used on an interactive whiteboard (smart-board or Promethean). No login is required to use the activities. There are also lesson plans available on the website to work in conjunction with the interactive platform. <http://bit.ly/2woYEqr>



Zombie Math (From Northern Illinois University) is making math horrifically interesting and it isn't hard at all...with ZOMBIES! Prepare for the zombie apocalypse and the ACT exam by playing the ACT prep math game and watching the zombie videos to help liven up math skills. (Also a version of the game for 8th grade PARCC!) There are also lesson plans for educators to help breathe a little life into the math curriculum. <http://www.smartspaceuni.com/zombiemath/>



Wolfram|Alpha is a free online computational knowledge engine that generates answers to questions in real time by doing computations on its own vast internal knowledge base. Our long-term goal is to make all systematic knowledge immediately computable and accessible to everyone. The website can guide you step by step through the process of solving many mathematical problems, from solving a simple quadratic equation to taking the integral of a complex function. When trying to find the roots of $3x^2+x-7=4x$, the website can break down the steps for you if you click the "Show steps" button in the Result pod. This is also a Chrome Extension that will work with ChromeBooks. <http://www.wolframalpha.com/>



Get the Math (Thirteen.org) is about algebra in the real world. See how professionals use math in music, fashion, video games, restaurants, basketball, and special effects. Then take on interactive challenges related to those careers. There are 9 challenges on the platform, each have a teacher resource with standards aligned lesson plans. There are great student centered- real world - applications used to bring understanding of the use of algebraic concepts. <http://www.thirteen.org/get-the-math/>



Pixar in a box is designed to help students answer an age old question: Why do I need to learn this stuff? Their answer to this question is a series of interactive lessons, each of which demonstrate how a concept introduced in school is used for creative benefit at Pixar. Within the platform educators can choose the grade level mathematics of the lesson...some lessons have multiple options. EX- Lesson on geometric transformations could be grades 7-8 or High school rotation. <https://www.khanacademy.org/partner-content/pixar>



Quadrant Defender is a Tower Defense game that allows users to graph systems of equations and use that information to plan their defenses. This game contains game play elements that require students to engage in budgeting, critical thinking, and situational geometry. Badges in Quadrant Defender are earned by correctly plotting the intercept points of pairs of linear equations. The linear equations vary in complexity and become more difficult as the player progresses through the games. <http://spacewolf.adams50.org/game/quadrantdefender>

Mathematical Videos



Mathematics in Movies - This is a collection of movie clips in which Mathematics appears. The site is now in HTML5 video and should be accessible by all devices. If not, chose the direct video links. To include a clip into a presentation, chose the quicktime version. A wide variety of genres and decades, some that students won't recognize but will certainly enjoy the connection. <http://www.math.harvard.edu/~knill/mathmovies/>



WatchKnowLearn is a video platform that has educational videos curated not only by the website developers, but users can also upload videos. The subcategory MATHEMATICS splits into every math content available, from math for young learners to calculus. Educators can create accounts and save videos to a playlist so they are ready when needed in the classroom. Most all are hosted on YouTube and educators are encouraged to review first. <http://bit.ly/2wp01W6>



Safe Share TV is a platform to watch YouTube without any additional videos or advertisements appearing on the screen. By copying and pasting the YouTube link into the box on the home page, the website will generate a new LINK to the video. This link will never expire and now will direct to a video display that removes all the unwanted items. Educators can now place this link in a PowerPoint or an assignment in GAFE (Google Apps For Education) that the students can select and they will not be shown "other" items. <http://safeshare.tv/>

Mobile Apps



Quick Graph is a powerful graphing calculator that takes full advantage of the multitouch display and the powerful graphing capabilities both in 2D and 3D. A simple interface that makes it easy to enter and/or edit equations and visualize them in mathematical notation. It's capable of displaying explicit and implicit (opt) equations as well as inequalities (opt) in both 2D and 3D, in all standard coordinate systems: cartesian, polar, spherical and cylindrical, all with amazing speed and beautiful results, which can be copied, emailed or saved to the photo library. <http://apple.co/2vfj7dK>



ClassPad Mobile APP - Calculator app equipped with powerful CAS graphing calculator functions of the handheld fx-CP400. There is a free version of the CASIO ClassPad app that is available on iOS and Android. The free version allows users to use functions such as basic calculations, graphs, and statistics, suitable for basic course of high school. Website- <http://edu.casio.com/forteachers/er/index.php>
iOS LINK - <https://apple.co/2licXUM>
ANDROID LINK—<http://bit.ly/2rIOXjk>



Math With Your Friends is a fun twist on a classic board game, and a unique new challenge! Instead of letters, tiles show numbers (0-9) and operators (+ - * / =). Instead of words, players make mathematical equations to score points. Increase your score by taking advantage of multipliers on the game board. Invite your friends to play the game directly from your contacts. Use built-in chat to send important messages to your opponent, or simply to brag about your move.
iOS—<http://apple.co/2vfaFeC>
Android—<http://bit.ly/2vfAxXE>



Online Virtual Tools



Draw.io is an online flowchart tool that allows users to create any type of drawing using simple to complex shapes and diagrams. Numbers and text included so student could use this to show the process in completing an equation. The platform has built in shapes that can be dragged onto the page and aligned to build the chart. The drawing can be saved to Google drive, Dropbox or Onedrive or printed out. Users can create an account, but it is not necessary to use the tool. <https://www.draw.io/>



GeoGebra is dynamic mathematics for all levels of education that brings together geometry, algebra, spreadsheets, graphing, statistics and calculus in one easy-to-use package. GeoGebra is a rapidly expanding community of millions of users located in just about every country. <http://bit.ly/2v7fNRY>



Desmos is the best-in-class HTML5 graphing calculator, which millions of students around the world use for free. The platform also has activities on top of that calculator, helping students use a powerful tool to experience all the curiosity, beauty, and sense that math has to offer. Those activities were used so often by so many teachers around the world that they decided to create an Activity Builder, helping every teacher create digital math activities that equal and exceed the activities we create ourselves. Users can create an account to save graphs and data for works in progress. Graphs can be printed or emailed. (calculator platform can be changed into 33 different languages.) (iOS and Android apps available as well.)
<http://bit.ly/2v7m1RW>



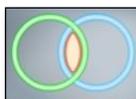
Daum Equation Editor - Online equation editor that will allow the user to save to Google drive, save as an image or text file, increase text and modify the color of different characters in the equation to help educators highlight portions of the instruction. <http://bit.ly/2v7AJ4P>



PhET Simulations from University of Colorado provides fun, free, interactive, research-based science and mathematics simulations. The simulations are written in Java, Flash or HTML5, and can be run online or downloaded to your computer. All simulations are open source (see our source code). Simulations are all grade levels and subjects are physics, biology, chemistry, earth science and math. Users can play with the simulations without an account. Educators can use an account to keep track of students and simulations.
<https://phet.colorado.edu/>



The National Library of Virtual Manipulatives (NLVM) is an NSF supported project that began in 1999 to develop a library of uniquely interactive, web-based virtual manipulatives or concept tutorials, mostly in the form of Java applets, for mathematics instruction (K-12 emphasis). Utah State University team is building Java-based mathematical tools and editors that allow us to create exciting new approaches to interactive mathematical instruction. The use of Java as a programming language provides platform independence and web-based accessibility. The NLVM is a resource from which teachers may freely draw to enrich their mathematics classrooms. <http://bit.ly/2v7j9V4>



Venn Diagram is an online interactive Venn diagram that does not require any user login or account to be used. Platform requires a name typed in only to give a title to the diagram for the purpose to be saved when finished. Diagram can be two or three circles. Users can label the circles and select the colors of each. While Venn Diagrams are not explicitly referenced by the ILS for Mathematics, they can be a useful tool for building conceptual understanding. This applet could be exceptionally effective when engaging in the Conditional Probability and Rules of Probability Standards (S-CP.1-9).
<http://bit.ly/2vfSmpu>

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- ◆ Social Emotional Learning
- ◆ Technology terms

Technology in Action—Secondary Mathematics

The screenshot shows the 'Tech for Teachers' website. The header features the logo 'Tech for Teachers' with 'lasrooms in action' written below it. A navigation menu on the left lists: Assessment, Audio/Video, Classroom Teacher Resources, Computer Science, Content Area, Digital Portfolios, E-Portfolios, Games, Integration, Instruction, Learning to Code, LMS Platforms, Microsoft, Mobile Apps, Open Educational Resources, Presentation/Visual Arts, Research Tools, Social Emotional Learning, Special Needs, Technology Terms, and Webinars. The main content area has a 'Welcome!' message and a search bar. Below the search bar, there is a small image of a group of people and a search result snippet.

Technology in Action

Guide

Secondary Science



Sample Standards Connections

When implementing technology into lessons and units, educators can connect to the content standards of the immediate subject, such as science, quickly. Connecting the tools within this document to the core disciplines of Life Science, Physical Science, Earth and Space, or Engineering can be the first step of Standards Connections. Taking a few steps further, educators need to connect with standards outside of science. Here are a few that might be include with the tools here:

ELA *R.7* Integration of Knowledge and Ideas, *R.10*– Range of Reading and Level of Text Complexity, *L.6*–Vocabulary Acquisition and Use, *W.1-W.3*–Text Types and Purpose, *W.4-W.6*– Production and Distribution of Writing, *W.7-W.9*– Research to Build and Present Knowledge, *W.10*– Range of Writing, *SL.1-SL.3*– Comprehension and Collaboration

SEL—*Goal 1*– Self Awareness and *Goal 2*– Social Awareness/ Interpersonal Skills



Online Experiments/ Simulations



Molecular Workbench (The Concord Consortium) - The complete workbench is a downloadable program that can be modified by the educator and then the students can control the experiments more. However, there is now a selection of “online” HTML 5 experiments and simulations that can be utilized completely online and are Chromebook compatible. This is the link to those resources. (You can also link to the downloadable program and all of the resources available from this webpage on your class website.)
<http://bit.ly/2lrxTcM>

PHYSICAL SCIENCE



Star in a Box—An interactive web app which animates stars with different starting masses as they change during their lives. Some stars live fast-paced, dramatic lives, others change very little for billions of years. The web app visualizes the changes in mass, size, brightness and temperature for all these different stages. It allows a user to examine snapshots of a star's position on the color-magnitude diagram (CMD) - the primary diagram used by astronomers to study evolution within stellar populations and to see how stellar parameters relate to one another.
<http://bit.ly/2lYj3gP>

EARTH AND SPACE



Sparticid is designed for teens. Educators will see that in everything from the content to the site features. Accurate and FUN videos, games, articles, interactive demonstrations, and more for 600+ topics, covering the common concepts and terms used in middle school science. Personalization features such as avatars and custom collections. Searchable menu that makes it easy to find all middle school curriculum subjects, and even the science of sports & fun.
<http://www.sparticid.org/>

PHYSICAL SCIENCE



Go Lab– Electrical Circuits—In the Electrical Circuit Lab students can create their own electrical circuits and do measurements on it. In the circuits, the students can use resistors, light bulbs, switches, capacitors and coils. The circuits can be powered by an AC/DC power supply or batteries. There is an ammeter, voltmeter, wattmeter and an ohmmeter. There is also a version of the Electrical Circuit Lab in which data can be collected. Students can analyze the collected data by creating graphs of the data and use the graphs in the conclusion tool.
<http://bit.ly/23iiw4x>

PHYSICAL SCIENCE



Solve the Outbreak—Users in the mission get clues and analyze data to solve the disease outbreak and save lives!

Do students quarantine the village? Interview people who are sick? Run more lab tests? The better a student answers, the higher they score - and the quicker they will climb the ranks to become a decorated Disease Detective. The game plays on a WEB app, iOS app and Android. The web app site includes lesson plans for MS and HS.

LIFE SCIENCE

<https://www.cdc.gov/mobile/applications/sto/web-app.html>



Go Lab– Wind Energy Simulation—Take control of a wind farm to provide electrical energy to a small town. Understand how random changes - in wind speed and power requirement of the town - affect the use of this natural energy resource.
<http://windenergy.ea.gr/>

ENGINEERING



Science Videos



Physics Girl is a large collection of physics experiments on video explained by Dianna Cowern and published as PBS Digital Content. Content includes space, everyday physics, and interviews with scientists directed towards preteens/teens. There are also experiments that can be completed in class.

<https://www.youtube.com/c/physicsgirl>



Crash Course, from the PBS Learning Media, has videos ranging from balancing chemical reactions to analyzing famous literature. From Science to Social Studies, Crash Course offers it all in quick-paced, imaginative videos aimed at learners of all ages. **CAUTION:** Content of these videos should be viewed prior to class as there maybe comments or objects in the video that will catch the attention of the class and might cause some reactions. (Nothing inappropriate, just giggles/reactions.)

<http://www.pbslearningmedia.org/collection/crash-course/>



Safe Share TV is a platform to watch YouTube without any additional videos or advertisements appearing on the screen. By copying and pasting the YouTube link into the box on the home page, the website will generate a new LINK to the video. This link will never expire and will go directly to a video display that removes all the unwanted items. Educators can now place this link in a PowerPoint or an assignment in GAFE (Google Apps For Education) that the students can select and they will not be shown "other" items.
<http://safeshare.tv/>

Research / Data Tools



Google Scholar provides a simple way to broadly search for scholarly literature. From one place, users can search across many disciplines and sources: articles, theses, books, abstracts and court opinions, from academic publishers, professional societies, online repositories, universities and other web sites. Google Scholar helps users find relevant work across the world of scholarly research.

<https://scholar.google.com/>



TED Ed Periodic Table of Elements videos is a complete collection of Ted Ed videos on all the periodic table of elements. Each of these videos also has lessons attached to them from TEDEd so that educators can have students dive deeper and answer questions on the elements or have further discussion on questions based on the elements.

<http://ed.ted.com/periodic-videos>



Smithsonian Learning Lab has so much to do at this website it is difficult to know where to start. The thrill of discovery awaits students at the Smithsonian Learning Lab. Type the research request after selecting the search icon in the upper left corner. The results will be displayed in pictures below. Results will include photos, videos and documents from many providers. The search can be narrowed by type as well as provider.

<https://learninglab.si.edu/>



Presentation and Publication Resources



Screencast-o-matic allows users to record on-screen display activity and audio from a computer microphone. Students can open their MS Word or Google Doc essay or report and record their reflections or process on how they developed their hypothesis or experiment. The video can then be saved and uploaded to the class website. The same process could be done for any computer generated work, modeling how to research or conduct a search online, or doing a science experiment with an interactive model and explaining why the reactions are occurring.

<https://screencast-o-matic.com/home>



ThingLink creates an interactive digital graphic by adding "dots" that pop up text or connections to websites, videos or more graphics. Users can upload photos, documents or any graphic and then add points anywhere on the item to show items of interest or further exploration. Students connecting to a science model may have linkable items to the research they have based their data or maybe an interactive experiment proving their hypothesis.

<https://www.thinkinglink.com/edu>



Adobe Spark is a resource for creating videos, pages and audio. It is unique because users can start in the online platform, then continue on an iPad, then switch to using a Chromebook, etc. Adobe also hosts or stores all the files for easy access from any location, so students can work from home. (Users may use a portable storage device). To further explain the educational uses, Adobe has created a guide for educators that can be found here: Educators Guide. It also includes many lesson ideas.

<https://spark.adobe.com/>



edublogs allows for educators to create a class account and control the postings of the students. Students are also not required to have email accounts. All accounts now have complete access to all resources including more space, templates, teacher controls, privacy controls...etc. Students can maintain a science blog to connect the community to global or local ecological and environment issues or just share the experiments being explored during a local science fair. This will allow them to have feedback from an authentic audience and experience writing for a greater population.

<http://edublogs.org/>

Website HIGHLIGHTS



The Concord Consortium's Path Finder - Their STEM Resource Finder features some of the best of free, open source educational activities, models and software tools. Educators can search by keyword or filter by subject, grade level and type to find the right resources for learning goals. ****Educators will need to carefully consider where to include these resources in their curriculum to ensure they are aligned properly to their grade level standards.**

<http://concord.org/ngss/>



Virtual Biology Lab has three Biodiversity Ecology Labs for students to explore how changes can effect the habitats. There is an Island, Stream and Plant model to manipulate. No login is required, the graphics are great and work well with a projector.

<http://virtualbiologylab.org/biodiversity-ecology/>



StemRead is from Northern Illinois University (NIU). Carefully selected books rooted in science, technology, engineering, and math (STEM) topics and explore the science behind the fiction. There is a selection of activities to go along with each one, lesson plans and videos to support the books. Since the creators of this platform are in Illinois, they also offer PD opportunities and local contacts. Checkout their contact information and sign up for their email list.

<http://www.stemread.com/>



PhET Simulations from University of Colorado provides fun, free, interactive, research-based science simulations. The simulations are written in Java, Flash or HTML5, and can be run online or downloaded to the computer. Simulations are all grade levels and subjects are physics, biology, chemistry, earth science and math. Educators can use an account to keep track of students and simulations.

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Technology in Action—Secondary Science



Technology in Action Guide

Secondary Social Science

Standards Targets Connections

Inquiry

Civics

Geography

Economics and Financial Literacy

History

Social Emotional Learning Standards Connections— SEL Goal 3—Demonstrate decision-making skills and responsible behaviors in personal, school, and community contexts

Inquiry Tools



Internet Public Library 2 is an online library that has been managed for over 20 years by Drexel University with contributing partners from over 20 universities from across the US, including the University of Illinois- Urbana-Campaign! The website is no longer actively managed and some resources such as "ask a librarian" are no longer available. However, the 20 years of curated data, resources and collections are FANTASTIC and certainly worth visiting! The website also has sections for kids, teens, newspapers, magazines, specials collections and can be searched by subject. <http://www.ipl.org/>



FactCheck.org is a website that monitors the factual accuracy of what is said by major U.S. political players in the form of TV ads, debates, speeches, interviews and news releases. The cover many current events in the nation and globally. Their goal is to apply the best practices of both journalism and scholarship, and to increase public knowledge and understanding.

<http://www.factcheck.org/>



Docs Teach—Turn your students into historians with primary-source based activities. Provide them the unique web address for an activity, or compile a Classroom full of activities. Each activity-creation tool helps students develop historical thinking skills. Pick documents, set up the activity, and write instructions for your students. You can include questions or an assignment in your conclusion. Students can submit and save their responses so that you can access them in My Students' Responses, or have them emailed to you if desired. <https://www.docsteach.org/tools>



Recap—by Swivl is a free app/website tool that provides teachers with new, creative way to gather evidence of student thinking using video recordings. Create and assign questions to a student, a group of students or the entire class to be answered during or after a lesson via the devices camera/microphone. This app works on iOS, Android, Chromebooks and desktop machines. <https://letsrecap.com/>

Civics Activities



iCivics is a non-profit organization dedicated to reinvigorating civic learning through interactive and engaging learning resources. The iCivics games place students in different civic roles and give them agency to address real-world problems and issues. They are rooted in clear learning objectives and integrated with lesson plans and support materials. Educators can create accounts and then classes with student usernames and passwords, create assignments and monitor student completion. <https://www.icivics.org/>



The Constitution Center hosts many interactive games such as the Interactive Constitution, Seize the Vote and Which Founder Are you? Educator resources for "offline" activities are also available and include many multimedia components. <https://constitutioncenter.org/learn>



The Migrant Trail is a single-player simulation game examining the life of migrants and border patrol agents on the U.S.-Mexico border. The game is similar to Oregon Trail. The player may choose to play as one of several individuals on either side (undocumented migrant or border patrol) and is always first introduced to a prologue explaining that character's history and motivations. Both points of view are well structured and offer compelling dialog for students. (Grades 6-12) <http://themigrantrail.com/>



Change Gamer promotes the use of digital games to study themes such as energy, climate change, natural disasters, the environment, economics, politics, history and science. The vast majority of games are free, browser-based, and playable on a number of different platforms (e.g. PC, Mac, Chromebook, etc.). <http://www.change gamer.ca/>

Geography Activities



The **Digital Scholarship Lab** at the University of Richmond has created an interactive resource using animation and layering technologies to create American History maps to reveal patterns that are hard to grasp on static maps. <http://dsl.richmond.edu/historicalatlas/>

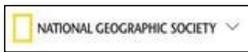


IL Geographic Alliance -The interactive maps which cover a wide variety of topics including physical geography, historical geography, population, cultural processes and patterns, political geography, agriculture and rural land use, industrialization and economic development, cities and urban land use, as well as general reference maps. <http://arcg.is/2vmVD6F>

Geography Activities (continued)



Taking it Global for EDU is a platform for educators to connect with a global community of classroom around the world looking for classrooms to collaborate on issues. Educators can sign up their classrooms and join a community to connect with other classrooms or just see what is being done around the world. Educator resources can be found on the website to get started. <http://www.tigweb.org/tiged/>



National Geographic Society Educator Resources is a Platform that has an innovation lab, interactive globe, activities, lessons, educator guides, professional develop and educational games. The platform also has thirteen different mapping tools and resources. <http://nationalgeographic.org/education/#>



Economics and Financial Literacy Activities



Admongo—Everywhere you look, you see advertisements—not just on TV and online, but on buses, buildings, and scoreboards. Do your students have the critical thinking skills to understand ads, what they're saying, and what they want kids to do? <http://bit.ly/2vmUOuG>



EconEdLink—Meet the students where they are by using technology to help teach economics and financial literacy. Simulations, games, videos and other interactive resources make education fun and engaging for the 21st century learner. <http://www.econedlink.org/tools/1>



Financial Literacy for Everyone allows students to test their money skills and give a brain a workout with these fun and educational games. Elementary to high school will find games to help with understanding spending and saving. <http://www.practicalmoneyskills.com/play>



Money Instructor (Online Banking Simulation) - online bank simulation for teaching and learning about banking and online banking skills. Learn about modern Internet and electronic banking using a computer, cell phone, or other electronic device. Includes lessons and worksheets for teaching, learning, and understanding online banking and related financial concepts. The online bank includes the following functionality: New account creation, Deposit money, Withdraw money, Transfer money between accounts and to other accounts, Pay Bills, Pay bills using payee information that may be saved, Create class lists of deposits or withdrawals to your students accounts (for example salaries, rent, etc), View monthly account statements, Use an ATM for banking transactions, Write a check from your checking account, Create separate class accounts for each of your classes and name the classes, Alter the bank date to create simulations. Make time progress faster or slower than real time. (for example, make one week of class equal 1 month of bank time), and Banking administration. <https://www.moneyinstructor.com/onlinebanking.asp>



History Activities



The **Reading Like a Historian** curriculum engages students in historical inquiry. Each lesson revolves around a central historical question and features sets of primary documents designed for groups of students with diverse reading skills and abilities. Instead of memorizing historical facts, students evaluate the trustworthiness of multiple perspectives on historical issues. They learn to make historical claims backed by documentary evidence. <https://sheg.stanford.edu/rh>



The **TimeMap of World History** is a comprehensive atlas and encyclopedia of world history. It contains over 650 maps and 1,000 pages of supporting text. It is designed to be easy to navigate, through both time and space. It is structured to make the complex mesh of history accessible and comprehensible. <http://www.timemaps.com/history>



Timeline JS3 is a simple timeline creator that hosts the produced timeline that can be embedded on any website or block. The timeline can be created using a simple Google spreadsheet and the website gives educators the template to start with and a video tutorial. Multimedia can be included in the timeline such as video and website links. Timelines can also be shared via Google Plus, Gmail, Facebook or Twitter. <http://timeline.knightlab.com/>



The **Slx3D** viewer offers students the ability to explore some of the Smithsonian's most treasured objects with a level of control that has never been possible until now. This revolutionary level of access to the Smithsonian collections will spark your students' curiosity and that the exploration of these objects will enable them to build lifelong observation and critical thinking skills. With few exceptions, Slx3D also offers access to these data sets so students can "reprint" a 3D model. <https://3d.si.edu/>



Even MORE Resources

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- ◆ Assessment tools
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- ◆ Content area support
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- ◆ Computer science
- ◆ Learning management systems
- ◆ Mobile apps
- ◆ Research tools
- ◆ Social Emotional Learning
- ◆ Technology terms

The screenshot shows the 'Tech for Teachers' website. On the left is a navigation menu with categories like Assessment, Audio/Video, Classroom/Teacher Resources, Computer Science, Content Area, Digital Portfolios, Presentation/Visual Arts, Research Tools, Social Emotional Learning, Special Needs, Technology Terms, and Teacher/Online Tools. The main content area features a 'Welcome!' message and a photo of students working together. At the bottom, there is a search bar and a disclaimer about the website's content and copyright.



Learning Goals

Goal 1: Develop self-awareness and self-management skills to achieve school and life success.

Goal 2: Use social-awareness and interpersonal skills to establish and maintain positive relationships.

Goal 3: Demonstrate decision-making skills and responsible behaviors in personal, school, and community contexts.



SEL Targeted Platforms



Heroes Among Us - Character Development Lessons and guides provided by the Congressional Medal of Honor Foundation for K-12. Educators can create an account to access grade level specific content and activities. The kindergarten through sixth grade focus on courage, commitment, integrity, sacrifice, citizenship, and patriotism into language and behavior that children can comprehend and embrace. Positive role models demonstrate how we can all choose to be our personal best. Middle and high school appropriate content features non-fiction accounts of Medal of Honor Recipients' and citizen heroes' actions. Assignments for individual and group work, assessment suggestions, and extended activities guide educators and students through this character resource. Videos are moving and geared towards speaking to student populations, making connections to concepts that matter to youth populations today.

<http://themedalofhonor.com/character-development>



My Pop Studio is a website that allows students to go behind the scenes within four media platforms and find out how media influences teenagers view of themselves and social relationships. Students can be in a magazine studio designing a layout where they are the celebrity, a TV studio examining viewing choices and ads, music studio looking a lyrics and media or a digital studio discovering the impact of social media. The website includes learning outcomes and secondary outcomes on the "about us" page.

<http://mypopstudio.com/index2.php>



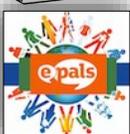
In **Quandary**, players must make difficult decisions in which there are no clear right or wrong answers but important consequences – to themselves, to others in the colony and to the planet. In their interactions with other settlers in the colony, players must consider facts, opinions and solutions, just like in real life. Though the game's setting is a futuristic colony, the genuinely tough situations that players encounter are translatable to the ones they are likely to face day-to-day. The skills players develop while playing Quandary – such as critical thinking, perspective-taking and decision-making – will help them recognize ethical issues and deal with ethical situations in their own lives. Quandary provides a framework for how to approach ethical decision-making without telling players what to think.

<http://www.quandarygame.org/>



Peekapak is an innovative website that combines social-emotional learning with reading and writing standards. The platform has a free version that allows access to all the books and at least one lesson plan. Additional lessons are available with the pro plan. Engaging characters and story lines address topics each month such as self regulation, respect, gratitude, kindness, teamwork, empathy, optimism, courage, honesty, perseverance, and many more with new topics appearing each month. All plans allow for educators to access previous months books. Suited for grades PreK-3, the books can be adjusted for any grade level and can be adjusted within the class so the same topic can be differentiated within the reading levels of the class.

<https://www.peekapak.com/>



E-Pals website—Collaborate with a class from around the world on various projects, or follow guided Experiences. As students video-chat with a partner class, practice nonverbal expressions and discuss what they may communicate to other cultures. Projects and connections on this platform can support goal 2 and goal 3 for all students. Simple to sign up and create the class profile. Search and select who you would like to communicate with for a one-time project or over multiple weeks. The platform starts out with teachers in control of the communications. Settings can be changed to give students a more empowered control if educators choose. <http://www.epals.com/#/connections>

Social Emotional Learning Standards

1A– Identify and manage one’s emotions and behavior.	1B– Recognize personal qualities and external supports.	1C– Demonstrate skills related to achieving personal and academic goals.
2A– Recognize the feelings and perspectives of others.	2B– Recognize individual and group similarities and differences	2C– Use communications and social skills to interact effectively with others.
3A– Consider ethical, safety, and societal factors in making decisions.	3B– Apply decision-making skills to deal responsibly with daily academic and social situations	3C– Contribute to the well-being of one’s school and community.



Tools to Support SEL



Google Slides/PowerPoint -Have students find photos of activities they would like to learn about or improve on and create a presentation and what it takes to be involved or accomplished in that activity.



Blabberize—Students sometimes have a difficult time expressing their emotions or talking about difficult subjects such as what it felt like to be bullied. Using this platform allows students to take any photo or drawing and bring it to life. The “mouths” on the picture will be converted into talking objects and the students can record their story. www.blabberize.com



Quick Rubric - Rubrics are a great way to help students reflect on how things went when working towards a goal. What obstacles were faced and how they were overcome or did they prevent the goal from being reached?

<https://www.quickrubric.com/>



Instant Classroom –Random Grouping, Educators can use this tool to randomly create groups. This allows students to work with everyone in the classroom at anytime. Educators don’t need to “select” who is where and the burden is off of the students to create teams within the peer pressure of the classroom.

<http://bit.ly/2umRTBE>



Brushes 3 app or **Sumo Point** online are great painting tools to allow students to express themselves with art. Whether it is simple splashing colors that might match with a song or their feelings during a situation or more detailed drawings depicting what or how something that occurred made them feel and respond.



Brushes 3- <http://apple.co/2vG2kns> or www.sumopaint.com



Make Beliefs Comix— Students can create a 4 panel (or more) comic strip on a topic about bullying, sharing, or what do to in a situation that isn’t nice. A simple platform of drag and drop to design the comic strip. Accounts aren’t need the creation can be downloaded and printed.

<http://www.makebeliefscomix.com/>



GoNoodle— is a website that gets students up and moving to characters on the screen dancing/moving with a purpose. The “calming” category has 26 activities that address compassion, being a good friend, frustration, patience, etc. It is a great way to take a break in a tense situation or when everyone just needs a brain break.

<https://www.gonoodle.com>



Trading Card Creator—both an app and online platform. Students can use this resource to create a card of either a fictional “friend” or themselves. They can include why they are friends, what they have done well as a friend. Students can create a friendship biography. <http://bit.ly/20Zg5o5>



Sock Puppets app (iOS only) - Students can create animated movies with sock puppets to share how to be nice, share, or deal with everyday school situations.

<http://apple.co/2vGAVBw>

More ideas....Common Sense Media

Social and emotional learning (SEL) skills make us better people at home, at school, in our communities, and in the workplace. These skills include how to "understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions." Unfortunately, SEL is all too often put on the back burner, relegated to a means of "classroom management." *True, SEL might not be core content, but it's the core of all content.* SEL might not be core content, but it's the core of all content.

This is the reason for We All Teach SEL, an 11-part blog series offering quick, practical tips and tools for integrating SEL into any classroom -- no matter the subject or grade. Explore the topics below to find actionable activities and resources that build on tools you might already be using and content you're already teaching. <http://bit.ly/2w5Xu37>



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Technology in Action—SEL Elementary K-5

Technology in Action

Social/Emotional Learning Standards 6-12



Learning Goals

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InspirED is a website that gives teens/preteens activities to help develop positive emotions. Research shows that we can promote positive emotions with our actions, mindsets, and goals. The website categorizes the activities based on these emotions/needs shown in the graphic.

<https://inspired.fb.com/teens>

CONNECTED & SUPPORTED
CONTENTED & BALANCED
ENERGIZED & MOTIVATED
HAPPY & EXCITED
INSPIRED & EMPOWERED
PASSION & PURPOSE
RESPECTED & VALUED
SAFE & COMFORTABLE



Everfi—EVERFI's digital curriculums empower teachers to bring critical skills education into their classrooms. Their interactive, game-based lessons help prepare students for success in the real world. Users can create an account, setup classes and add assignments. Resource areas include Financial Education, Social & Emotional Learning, Cultural Literacy, STEM & Career Readiness, Health & Wellness and Summer Learning. Each resources is setup in a scenario-based learning experience that puts the skill in context with the real world. The platform connects the resources to standards and allows for comprehensive reports to track student progress. SEL course offers learning for a strong SEL foundation, Extension activities to engage the whole classroom and intentionally designed to foster emotional literacy. <https://everfi.com/partners/k-12-educators/>

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2D– Demonstrate an ability to prevent, manage, and resolve interpersonal conflicts in a constructive ways.		
3A– Consider ethical, safety, and societal factors in making decisions.	3B– Apply decision-making skills to deal responsibly with daily academic and social situations	3C– Contribute to the well-being of one’s school and community.



Tools to Support SEL

popplet Popplet is a brainstorming tool that can be used within a small group setting or whole class activity to analyze emotional and behavioral choices or responses students may encounter. This will assist them to identify behaviors in themselves and see them in others. This will also help them to develop a better communication within the classroom as they generate ways to handle stress and create a positive attitude between peers.
<http://www.popplet.com/>

CareerOneStop is a website that students can reflect on their strengths and skills that will allow them to look at how those factors can be connected to careers and colleges. Selecting resources for Students and Career Advisers takes users to a page that offers two exploration links: "Identify Your Interests" and "Explore Careers". On both of these pages is where students can use their list of strengths and skills to identify careers that would match with what most interest them. Take this a "tech step" further and have them create a presentation or Infographic about one of the careers that match their strengths/skills.
<http://www.careeronestop.org/>

Lucid Press—Free premium account for educators...enroll with school email or request upgrade after creating an account.
<https://www.lucidpress.com>

Canva—Free educator account, create a team for students (10max) to share creating. (iOS app as well.)
<https://www.canva.com>



Scratch is a coding application online (Scratch JR is on the iPad) that will allow students to create an interactive game for others to play where they are faced with decisions in the game. There are already many socially based game built by students 3rd through high school on the Scratch website. Many of these games are addressing issues of bullying, cyber-bullying, cheating, dating, socializing, social media...etc. <https://scratch.mit.edu/>



iCivics is a free tool funded and sponsored by the US Government and Supreme Court Judge Sandra Day O’Conner. Along with many government concepts this website has games and activities for middle/high school students to tackle the decisions on many cases that have been in front of Juries and the Supreme court.
<http://www.icivics.org/>



The Corporation for National & Community Services can assist educators that have students that want to look into a community or school service project, but are unsure how to start. This is a website that can help with the planning process. There are several tool kits available and many ideas, including a "blank" toolkit if no other category fits the students needs. Resources on how to go about finding the needs in the local area, uncovering if something is already being done to address the same issue, and what steps to take to get started or connected. <https://www.serve.gov/?q=site-page/toolkits>

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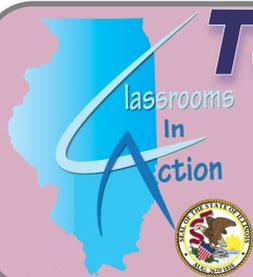
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Technology in Action—Social Emotional Learning 6-12





Technology in Action Guide

Special Education Teacher Resources



IEP Goal Writing

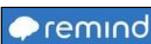


IEP Quality Project is an online resource to assist Illinois Special Education Educators with developing IEP Goals. Developed with a research grant at the University of Illinois, Urbana-Champaign, funded by the U.S. Department of Education, Institute of Education Sciences. The platform has a toolbox with assistant tools for Academic goals, Functional goals (behavioral/social emotional) and Transition goals. The toolbox assistant walks educators through the process to develop goals for students, making connections to the Illinois standards, including social emotional learning standards for behavior goals!!! There are student scenarios and a useful resource library. ***Currently ONLY AVAILABLE to Illinois Educators***

<https://iepq.education.illinois.edu/>



Family Communication



Remind - Is a text message platform that allows educators to text students and parents without sharing phone numbers. Educators can create an account online and give parents/students an access code. Parents and students send a text message with their name when registering for the class. Messages can be translated into 70 languages and have files attached to them. <https://www.remind.com/>

device through apps, plus an email option if parents do not have smartphones.

<https://app.bloomz.net/#/app>



Bloomz - is a platform where teachers can safely communicate with parents, share class photos, updates, coordinate volunteers and coordinate conference signups. Another feature allows for sending invites, attaching permission slips, tracking RSVPs, requesting and signing up volunteers and sending reminders. Bloomz is protected by strict security measures. Educators can connect with parents on any

Appear.in is a video conferencing platform that allows for up to 8 people to be included in a private video chat room. Educators can use this in many ways. Many of our students have parents that are not available to attend parent/teacher conferences. (military members, business travel...etc.) One parent may be able to attend, but it is important that we try to include all family members for support. Special education educators may need to include specialists from other buildings in a conference as well. Educators can also use this platform to have a struggling student share successes with a family member during the day. <https://appear.in/>



Student / Goal Management



The Birdhouse student documentation app was designed to help stay organized, be more efficient, and free you up to have time to focus on what matters—teaching! The platform has an easy-to-use mobile and web-based app, to record, retrieve, and share streamlined digital notes, anywhere, at anytime!

Include IEP goals for each student, note when an event occurs with notes included for future retrieval and review. The Birdhouse app has tools to help you share info more easily and more clearly with parents and co-teachers, reducing confusion, improving action, and providing better records. The free plan allows for unlimited students or classes, streamlined notetaking, quick summaries, team collaboration and communication logs. (Web App, iOS, Android and KINDLE!)

<http://www.birdhousehq.com/teachers/>



Seesaw is a student driven digital portfolio system that allows students to independently document what they are learning at school. Special education educators create classes within the platform either as a group of students or one class for each student. Students can be entered into the classes or teachers can give a class code to the student to "self join". Educators can capture learning with pictures and videos, import documents and add comments. Educators can keep all the documentation within a separate class for each student, record milestones or artifacts to support identified goals. Seesaw works will all mobile devices, apps for all, even Kindle Fire! ChromeBook compatible as well! Completely free and educators can invite parents to participate. Portfolios can be downloaded at the end of the year and saved to a CD. <https://app.seesaw.me>



Classroom Management



Classroom Screen - Completely online tool that allows educators to use various tools to help with classroom management, instructions and many other classroom needs. Educators can upload student's names and use the Random Name tool. To get students to a website using a QR Code just put in the URL. There are also tools that allows drawing, text, Traffic Light, Sound Level and Timer tools <https://www.classroomscreen.com/>

Classroom Management (Cont.)



Class Dojo—is a classroom management site that assists in creating a positive classroom culture. ClassDojo helps students build and recognize important skills, such as teamwork and persistence. Parents can be reached quickly and privately with direct messages or classroom wide messages. Messages can be translated into 35 languages. The classroom management choices can be customized. (i.e., Special education teachers can track IEP goals by setting up a classrooms for individual students.) New to ClassDojo is the "class story", a social media style feed to connect parents with what is going on in the classroom.

<https://www.classdojo.com/>



GoNoodle is a solution for students who have the wiggles, need a brain break, or are assigned indoor recess again. Educators can set up an account for their class and select an avatar. (These "grow" and change as users continue to utilize the website.) Activities for brain breaks, morning stretches, and energizing runs are just some of the choices. <https://www.gonoodle.com/>



Bouncy Balls is a noise monitor website that uses the microphone attached to a computer or built into a laptop to monitor the volume of noise in the room. As the noise level gets louder the amount of bouncing balls increases and they bounce higher....noise level goes

down, so do the balls. The balls can be changed to 2 other pictures...emojis and bubbles.

<https://bouncyballs.org/>



Classcraft platform allows any educator to "gamify" their classroom management. This is targeted more towards MS / HS classrooms. There are free and paid portions of the platform. In the free portion educators can create a classroom (s) and students get to create their aviators. Earning points during the day students can add to their aviator. Points can be set by activity, working in groups, helping out other students. Educators can include parents in the system. <https://www.classcraft.com/>



Platforms for Teacher Created Tools



BitsBoard APP comes in a free version as well as a FULLY OPEN paid version currently \$19.99. The free version includes access to the Bitsboard catalog including tens of thousands of flashcards and carefully curated lessons covering hundreds of topics. Bitsboard is fully customizable to meet educators specific learning needs and allows educators to create their own cards that can be used in the 14 plus activities in the APP. The free version allows access to an online collection of "boards" that other educators have created that can be downloaded. The PRO version does allow for multiple users on one device and more management capabilities. Also popup reminders to upgrade will disappear. Read more about BitsBoard online [HERE](http://apple.co/2y9LA6i). <http://apple.co/2y9LA6i>



Educaplay allows educators to create and share multimedia Educational Activities to any device using the HTML5 technology (interactive abilities). ESL students can practice by creating or reviewing conversations with the dialogue activity. Games are available such as matching, fill in the blank, riddles, slide show, word search, video quiz that include audio. All styles can be educator created or selected from a large community of already created resources. The resources are in English and 8 other languages which makes this also a great resource for world language (foreign) classes also. <https://en.educaplay.com/>

Google Chrome Extensions



Last Pass - Educators have passwords to so many logins and our students struggle with this task as well. Last Pass is an extension that allows you to remember ONE password— the LAST PASS password. Save all usernames and passwords to LastPass, and it will autologin to websites and sync passwords everywhere you need them. Educators can even have multiple accounts for the same website and Last Pass will store each separately.

<http://bit.ly/2KNxogq>



Screencastify—A simple video screen capture extension that is for Google Chrome. Screencastify is the easiest way to record, edit, annotate, store, and share video screen recordings on a Chromebook as well as other devices. Record a specific open tab, or your whole desktop at the click of a button. The Lite version is free and suitable for many needs. Educators can record online activities for students to follow or steps for a homework assignment and place on a class website for students to access at home.

<http://bit.ly/2rwUIVW>



Even MORE Resources

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- ◆ Assessment tools
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- ◆ Mobile apps
- ◆ Research tools
- ◆ Social Emotional Learning
- ◆ Technology terms

Technology in Action—Special Education Teacher Resources

The screenshot shows the 'TECH FOR TEACHERS' website. The header is blue with the title 'TECH FOR TEACHERS' in large, bold letters. Below the header is a navigation menu with various categories. The main content area has a 'Welcome!' message and a list of resources. The footer contains a disclaimer about the website's purpose and contact information.



Danielson Domain Connections

Domain 1 Planning & Preparation 1c-Setting instructional outcomes 1e- Designing coherent instruction 1f- Designing student assessment	Domain 2 Classroom Environment 2c- Managing classroom procedures 2d- Managing student behavior
Domain 4 Professional Responsibilities 4b -Maintaining accurate records 4c- Communicating with families	Domain 3 Instruction 3c-Engaging students in learning

Lesson Plans



Planbook EDU is an online lesson plan book that allows access from any device. The platform has multiple scheduling day formats, easy editing, all browser compatibility, and iPad-iPhone support. Initial plan book setup is done in a step by step process with many help desk style supports. The free platform allows complete lesson planning including attaching standards. The format automatically selects the CCSS for ELA and math, however educators can add more to include SEL, fine art, PE, etc. <http://planbookedu.com/>



Standards Planner is an online tool for lesson planning. Visitors can connect resources and standards to a color coded classroom calendar system as easy as drag and drop. Educators can integrate with Edmodo, Clever, Google and Office365.EDU. Users can attach standards to the lessons for ELA, math, science (NGSS), social science (2016), SEL and PE/health (2014). The fine arts standards have not been updated on the platform at this time. Educators can upload resources or attach them from the internet to lessons. Lesson plans can be shared with co-teachers for collaboration. <https://app.standardsplanner.com/home/login>



Family Communication



Remind - Is a text message platform that allows educators to text students and parents without sharing phone numbers. Educators can create an account online and give parents/students an access code. Parents and students send a text message with their name when registering for the class. Messages can be translated into 70 languages and have files attached to them. <https://www.remind.com/>



Bloomz - is a platform where teachers can safely communicate with parents, share class photos, updates, coordinate volunteers and coordinate conference signups. Another feature allows for sending invites, attaching permission slips, tracking RSVPs, requesting and signing up volunteers and sending reminders. Bloomz is protected by strict security measures. Educators can connect with parents on any device through apps, plus an email option if parents do not have smartphones.

<https://app.bloomz.net/#/app>



Classtag - this platform allows teachers to keep a running blog of activities of what is happening in the class. There is a calendar feature to keep parents up to date with events going on in the school. A few of the unique features are the scheduling and volunteer components. When there is an event, educators can place a list of what is needed...items and volunteer positions...i.e. 3 people to bring 2 pizzas each, 4 people to manage the games..etc. When parents respond to the website they select what they want to volunteer to do or bring. Educators then have a list of who has selected and what is still needed. Educators can also post pictures of events in class, maintain a class roster with contact information, send emails to the group or individually. <https://www.classtag.com/>



Sign Up Genius - A simple website tool to build unlimited and free sign up sheets. Choose from hundreds of professionally designed themes or create your own. Enter an event date in an instant, select flexible page formats for dates, RSVP or non-date specific sign ups. The website includes video tutorials to easily add extra functionality. The free account allows for one administrator and only one "custom" question per sign up sheet. The sign up sheet can be accessed from all devices and sent via email and social media. (Twitter, Facebook..etc.)

<http://www.signupgenius.com/>

Video Conferencing



Appear.in is a video conferencing platform that allows for up to 8 people to be included in a private video chat room . Educators can use this in many ways. Many of our students have parents that are not available to attend parent/teacher conferences. (military members, business travel...etc.) One parent may be able to attend, but it is important that we try to include all family members for support. Special education educators may need to include specialists from other buildings in a conference as well. Educators can also use this platform to have a struggling student share successes with a family member during the day. <https://appear.in/>



NoteBookCast is a free platform that allows up to 10 users to collaborate / share an online whiteboard on any web browser platform. Educators can use this to build their PLN across buildings, states and countries. This is real-time, shared online whiteboard, in all computer browsers supporting collaborative conversations where educators can work simultaneously on the board. There is no need to install any software. Educators can write and sketch with all tablets and touch screens, draw shapes or add pictures to the board and save the boards for later use. There is no account needed unless users want to save boards. <https://www.notebookcast.com/>



Classroom Management



Class Dojo—is a classroom management site that assists in creating a positive classroom culture. ClassDojo helps students build and recognize important skills, such as teamwork and persistence. Parents can be reached quickly and privately with direct messages or classroom wide messages. Messages can be translated into 35 languages. The classroom management choices can be customized. (i.e., Special education teachers can track IEP goals by setting up a classroom for individual students.) New to ClassDojo is the "class story", a social media style feed to connect parents with what is going on in the classroom.
<https://www.classdojo.com/>



GoNoodle is a solution for students who have the wiggles, need a brain break, or are assigned indoor recess again. Educators can set up an account for their class and select an avatar. (These "grow" and change as users continue to utilize the website.) Activities for brain breaks, morning stretches, and energizing runs are just some of the choices.
<https://www.gonoodle.com/>

work. As the noise level gets louder the amount of bouncing balls increases and they bounce higher....noise level goes down, so do the balls. The balls can be changed to 2 other pictures...emojis and bubbles.
<https://bouncyballs.org/>



Online Timers set of Classroom Timers is a free website of classroom timers. Educators do not need to register. Users choose a timer, set the time and select GO! Timer is shown as simple visual graphics and can be used full screen. An alarm sounds when time is up.
<http://www.online-stopwatch.com/classroom-timers/>



Bouncy Balls is a noise monitor website that uses the microphone attached to a computer or built into a laptop to monitor the volume of noise in the room. Educators can use this website to have the students take ownership of the noise generated during their individual work or group



Class Websites / Teacher Blogs



Weebly EDU is a website creation tool that has an educational side and will allow teachers to create an account for free. If an educator wishes to create a paid account for more features, still select to stay within the EDU platform, the "paid" features will carry to all the websites under that account. There are no upload limits per website. The interface is "drag and drop" to add text, images, links, buttons, slideshows, media, and other items. There are many templates to choose from to design a class webpage. Educators can include items to have students upload their completed homework, parents to send in permission slips and links or embed videos to "flip" your classroom assignments.
<https://education.weebly.com/>



Classtell Classtell is a simple website building tool that allows educators to create a communications platform to connect with families easily. There are built-in templates that include calendars and assignment styles. Students and parents can find your website by searching for their teacher's name or even the school. This platform is the easiest to use and closest to typing in a word processing program. Many tutorials are available. There are limitations to the "extra" features available such as imbedding content. Some more technical content from other websites may not be able to be placed on the website.
<http://classtell.com/>



edublogs allows for educators to create a class account and control the postings of the students. EduBlogs is now completely FREE for educators! (Well, there is a paid account with more storage space and an email service.) All accounts now have complete access to all resources including more space 10GB, templates, teacher controls, privacy controls...etc. Sponsoring an afterschool club, sports team or student activity can add many logistic complications to an educator's daily routines. Educators can use this platform to create a running blog of what is happening in the classroom, an afterschool club, or sports team so everyone from participants, parents and community partners can keep connected.
<https://edublogs.org/>

Google Chrome Extensions—Teacher Favorites



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Grammarly - Check your spelling and grammar as you type. Boost your credibility everywhere you write! Grammarly's free writing app makes sure everything you type is easy to read, effective, and mistake-free. Adding Grammarly to Chrome means that your spelling and grammar will be vetted on Gmail, Facebook, Twitter, LinkedIn, Tumblr, and nearly everywhere else you write on the web.
<http://bit.ly/2ILRCCS>



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