



CLASSROOMS in ACTION

Your First Stop for K-12 Resources

www.ilclassroomsinaction.org



TECHNOLOGY IN THE ILLINOIS LEARNING STANDARDS - ENGLISH LANGUAGE ARTS, FINE ARTS, MATHEMATICS, SCIENCE, PHYSICAL DEVELOPMENT/HEALTH AND SOCIAL SCIENCE Compiled by ISBE Content Specialists

Kindergarten –
5th Grade

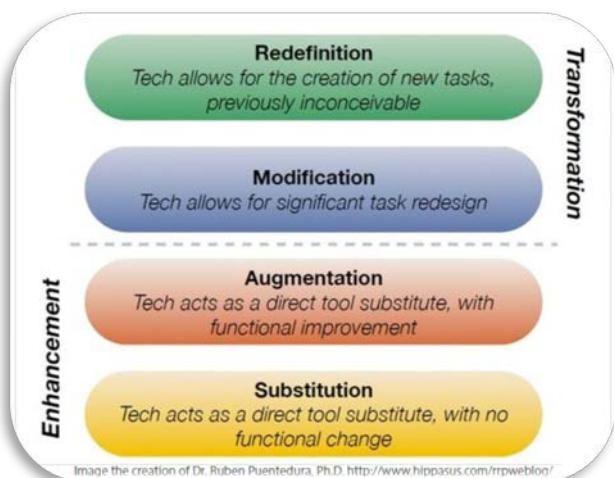


A key component of the *Every Student Succeeds Act* in Illinois is the effective use of technology to improve the academic and digital literacy of all students. Technology can be incorporated into all lessons and activities, but sometimes it is hard to find a starting point. This resource can be used as a guide to give educators some ideas and starting points to connect technology with the standards they are currently using in the classroom.

Many of the Illinois Learning Standards have technology directly written in the standards, English Language Arts has the greatest occurrences. Since all educators teach the English standards, it makes sense those would have more references than others. In this resource, we have included standards from all content areas, choosing standards that didn't directly mention technology, however would best benefit from being supported with technology integration.

Also within the resource are many boxes that show strategies and connections to the Illinois Social Emotional Learning Standards that could be included for the previous technology integration ideas.

STRATEGIES WHEN INTEGRATING TECHNOLOGY



ISTE Standards for Students 2016

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

*International Society for Technology in Education

One way of integrating technology into lessons can be accomplished on four levels, called SAMR – Substitution, Augmentation, Modification and Redefinition. The goal is to “jump the line” to modification to increase and change the learning. Most teachers move from all four levels throughout the year.

The technology tools shown within this resource are current as of the publication date. However, since technology is always evolving some tools may no longer be available or could have changed services. To help educators keep up-to-date with the latest resources in a user-friendly environment, we have created an online resource:

www.ilclassroomtech.weebly.com



ENGLISH LANGUAGE ARTS

The College and Career Readiness Anchor Standards form the backbone of the ELA/literacy standards by articulating core knowledge and skills, while grade-specific standards provide additional specificity. Each section uses the same CCR anchor standards but also includes grade-specific standards tuned to the literacy requirements. Each CCR anchor standard has an accompanying grade-specific standard translating the broader CCR statement into grade-appropriate end-of-year expectations.

COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR READING

Integration of Knowledge and Ideas

CCR.R.7 Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.



Pobble 365

www.pobble365.com

- Visual Story Starters to allow students to create stories and ideas from diverse visual media
- Includes Sentence Challenges and Question Time prompts to help students evaluate the photos



Scholastic Story Starters

<http://www.scholastic.com/teachers/story-starters/>

- Game style story selections are used to present ideas in a diverse format
- Adventure, Fantasy, Science Fiction or "scrambler" choices



Watch, Know, Learn

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

- Educational Videos -ELA, Math, Fine Arts, Health, PE
- Great Community and Career selections
- Videos created by students as well as professionals to give many perspectives and formats for students to view and evaluate



Presentation of Knowledge and Ideas

RL.2.7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

RL.5.7 Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).



Storyline Online Website

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

- Screen actor guild- actors reading children's books allow for tone and other presentation elements to be seen in the reading of many standard children's books
- Many titles available with videos and text "highlighting" as words are being read
- Alternate players available if schools block YouTube



Integration and Knowledge and Ideas

RI.4.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

RI.5.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.



InstaGrok

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

- Innovative, interactive search engine with multimedia components
- Searches "branch out" like a mind map as words are selected within the search
- Results include websites for more information, videos, pictures, definitions and much more.



Ducksters

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

- Simple, K-5 search engine that filters content for students
- Results are returned in a condensed and easy to read format for the grade level
- Many charts and graphical representations

Supporting SEL standards – **Goal 1-** Incorporate conversations around the emotions of the characters within the stories the students have created. **Goal 2-** Discuss how each student may see a different story within the picture or sentence starter and why each story can be different or the same. **Goal 3-** Discover the community and career connections in the videos/research with the students' personal neighborhoods or family careers.

COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR WRITING

Production and Distribution of Writing

CCR.W.6 Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.



Edublog Website

<http://edublogs.org/>

- Classroom blogging website with teacher controls
- Can include feedback from website visitors reviewing student's writing (monitored by teacher)



Little Bird Tales

<https://littlebirdtales.com/>

- Digital book creation that allow student accounts with educator controls
- Password protected online viewing and email sharing of student creations

Production and Distribution of Writing

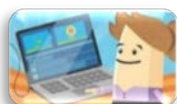
- W.K.6 With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.
- W.2.6 With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
- W.3.6 With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.
- W.4.6, W.5.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.



StoryBird

<https://storybird.com/>

- Educators can create a class account without student emails
- Students create stories/books with provided artwork. Students can create simple to chapter books.
- Poetry options are available as well



Dance Mat Typing

<http://www.bbc.co.uk/guides/z3c6tfr>

- Four levels of play, each divided into three stages to learn touch typing
- Each stage builds on the last, adding new letters as the student progresses



Typing.com

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

- Educators can setup classes to monitor students' progress.
- Typing games are available on the website that can be managed by educators

Supporting SEL standards – **Goal 1-** Recognize personal qualities by creating stories about a special skill or talent students have and share online. **Goal 2-** Build social skills by collaborating with a partner to create a digital book. **Goal 3-** Contribute to the well-being of the class by helping others persevere when learning to type becomes frustrating.

Research to Build and Present Knowledge

CCR.W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.



Kiddle Search

<http://kiddle.co/>

- Elementary student search engine that uses visual results as well as lower reading levels
- Results 1-3 are all kid specific websites, 4-7 are family friendly and easy to read, the rest are filtered results.



PlagTracker

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

- Students can type or paste text into the text box and submit for verification
- The website will review and search for passages within minutes and return locations that match

Supporting SEL standards – **Goal 1-** Support self-awareness skills within the community by researching community resources students enjoy. (Parks, Sports, Landmarks...etc.) **Goal 2-** Recognize individual and group similarities and differences by researching cultural traditions. **Goal 3-** Apply decision making skills to academic success based on choices.



Research to Build and Present Knowledge

- W.3.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
- W.4.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.
- W.5.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.



Evernote

<https://evernote.com/>

- Note taking resource- Chrome extension, iOS app, Android App, website accessible, Chromebook compatible
- Notes will sync across all devices within the accounts. Students can collaborate.



Microsoft OneNote Notebook online

<https://www.onenote.com/hrd>

- Educators can create a “class” notebook for students to share space for a particular project or students can have their own notebook to manage notes for each class subject.
- Items can be “clipped” from web searches and automatically include cited notations linked within the notebook for listing sources.



EasyBib Educational

<http://info.easybib.com/easybib-edu>

- Citation and bibliography creation tool that is available online, Chromebook extension and an app for iOS and Android. (All devices can connect to the same account.)
- Multiple projects can be within one account and a complete bibliography will be generated.

Supporting SEL standards – **Goal 1** Demonstrate skills to achieve personal and academic goals using a note taking tool to create long and short term goals. **Goal 2** – Cite resources when recognizing the feelings and perspectives of others when students are learning to paraphrase. **Goal 3**- Demonstrate decision making skills using a shared notebook to create classroom rules.

COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR SPEAKING AND LISTENING

Comprehension and Collaboration

- CCR.SL.2 Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.



Answer Garden Website

<https://answergarden.ch/>

- Online Brainstorming tool and visual exit ticket
- Students can collaborate in real time to present information with 1-3 words that appear as a word cloud



Popplet Website

<http://popplet.com/>

- Mind mapping resource that uses graphics to make connections (iPad app available)
- Students can present information from many media resources on one platform for the class to evaluate

Comprehension and Collaboration

- SL.K.2 Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
- SL.1.2 Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
- SL.2.2 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
- SL.3.2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- SL.5.2 Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.



Mircrosoft SWAY

<https://sway.com/>

- Educators can upload photos, templates, PowerPoint slides to create presentation videos that can be viewed on any platform by students independently
- Many tutorials available to learn how to use this resource

**Animoto**
<https://animoto.com/>

- Simple video platform to import pictures, add music. There are built in layouts and transitions.
- Educators can get the full version for free by selecting “apply” for an upgrade.

**EdPuzzle**
<https://edpuzzle.com/>

- Video platform where educators can import videos from the web or upload their own and add questions throughout to check for understanding
- Questions can be in several formats from multiple choice to short answer
- Educators can create class accounts and see student responses

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by identifying emotions and behaviors in videos and texts. **Goal 2** – Practice interpersonal skills by choosing texts and videos that have characters facing situations like not sharing, not apologizing or making false accusations. Have students create videos on how to respond in those situations. **Goal 3-** Demonstrate how to follow class rules by students making PSA (public service announcements) videos of new students.

Presentation of Knowledge and Ideas

CCR.SL.5 Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

**easel.ly Website**
<https://www.easel.ly/>

- Infographics creation with simple to use templates and instructions
- Students can make a graphic poster to show such as - Agriculture of Illinois, Population of Chicago...etc.

Presentation of Knowledge and Ideas

- SL.K.5 Add drawings or other visual displays to descriptions as desired to provide additional detail.
- SL.1.5 Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
- SL.2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
- SL.3.5 Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.
- SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
- SL.5.5 Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

**Buncee**
<https://www.edu.buncee.com/home>

- Students create multimedia digital stories incorporating drawings, pictures, music, voice recordings and links that can be shared.
- Web based and iOS app creation available.

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

- Create animated videos and presentations to include voice recordings
- Free account includes 5 minute video limits with a small watermark in the corner of the video.

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by identifying and managing one’s own behaviors by having students create digital projects about what is challenging about school or what their family like to do together. **Goal 2** – Demonstrate an ability to prevent, manage, and resolve interpersonal conflicts in constructive ways. Have students create multimedia projects that identify bullying behavior and how it affects people, or describe ways to stop rumors. **Goal 3-** Demonstrate responsible behaviors in a community context by creating a community project media project.

READING STANDARDS FOR INFORMATIONAL TEXT

Craft and Structure

- RI.1.5 Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.
- RI.2.5 Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
- RI.3.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.



Fact Monster

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

- Includes an online almanac, thesaurus, dictionary, encyclopedia, atlas and many timelines
- Student friendly and no login is required to use the website for search tools



Internet Public Library 2

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

- Specific sections for Kids, Teens, Newspapers, Special Collections. Can search by subject
- An online library curated by over 20 universities for the last 20 years (Currently no active “librarian” to ask questions.)

Supporting SEL standards – **Goal 1-** Demonstrate an understanding of the skills needed to achieve a goal by researching what is needed to for a job or activity. **Goal 2** – Increase interpersonal skills by collaborating in a group research project.

Goal 3- Contribute to the well-being of the community by gathering information to construct an argument to support a local cause or project.

WRITING STANDARDS

Text Types and Purposes

- W.4.2, W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- W.4.2.a Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- W.5.2.a Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.



Google Slides (or PowerPoint)

<http://google.com>

- Presentation creation that allows for text formatting and multimedia embedding
- Both platforms have iOS, online and Chromebook versions



My Ebook Maker

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

- Students create chapters, book covers, enter within a standard text editor or a template.
- Formatting options include graphics, tables, flash videos and iFrame web coding.

Supporting SEL standards – **Goal 1-** Increase self-awareness and self-management by creating projects showing positive strategies for handling conflicts and strategies for upsetting situations. **Goal 2** – Increase social awareness by creating projects that recognize individual and group similarities and differences, or recognize the different social groups in school.

Goal 3- Students can create texts that help others avoid dangerous situations (e.g., unsupervised sports, walking in areas where you feel unsafe, biking without a helmet, hanging around with peers who use drugs).

LANGUAGE STANDARDS

Vocabulary Acquisition And Use

- L.2.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.
- L.2.4.e Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
- L.3.4 Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- L.3.4.d Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.
- L.4.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.
- L.4.4.c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
- L.5.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.
- L.5.4.c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

Vocabulary.com

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



- Smart dictionary with an adaptive learning game
- Educators can create a classes and specific lists



Wordflex Touch Dictionary <https://itunes.apple.com/us/app/wordflex-touch-dictionary/id488540344?mt=8>

- The app “branches” out when a word is typed to show pronunciations, meanings, root words, origins...etc.
- Users can email a poster of the word tree or save it.



Words with Friends (EDU edition)

<https://wordswithfriendsedu.com/>

- Educators control who is allowed in the “classroom” and can monitor who is playing.
- Educational edition includes a dictionary so students can look up words to check meanings of the words their opponent is playing or check to see if a word they want to play is really a word.

Supporting SEL standards – **Goal 1-** Develop self-awareness and self-management skills by identifying and defining emotion and feeling words. Students can discover synonymous, antonyms, roots words, origins and even create projects around the words. **Goal 2** – Increase social awareness by playing games in pairs or groups using word lists about emotions, feelings, rules, talents, goals or good decision strategies. **Goal 3-** Students can demonstrate decision-making skills by creating a list of safety strategy words for situations at school.

FINE ARTS

DANCE

CREATING

Revise- Anchor Standard 3: Revise, refine, and complete artistic work.

DA:Cr3.1.5 b. Record changes in a dance sequence through writing, symbols, or a form of media technology.



Show Me interactive whiteboard app <https://itunes.apple.com/us/app/showme-interactive-whiteboard/id445066279?mt=8>

- Record audio and drawings on this interactive white board
- Documents can be uploaded, displayed and drawn on while recording audio
- Educators can upload the dance sequence for students to draw on the tablet with notes

Supporting SEL standards – **Goal 1-** Develop self-management skills by dividing the sequences into manageable steps. **Goal 2 –** Increase social awareness by collaborating with everyone on the changes desired. **Goal 3-** Students can demonstrate decision-making skills by listening and participating in group decisions.

PERFORMING

Present-Anchor Standard 6: Convey meaning through the presentation of artistic work.

DA:Pr6.1.2 b. Use limited production elements (for example, hand props, simple scenery, or media projections).

DA:Pr6.1.3 b. Explore simple production elements (for example, costumes, props, music, scenery, lighting, media) for a dance performed for an audience in a designated specific performance space.



Haiku Deck

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

- Create slides that can be used for background/scenery or props for performances
- Works on Chromebooks and iOS devices with a simple interface and built in templates



Speak Pipe

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

- Record students voices, student created sound effects or music for use in productions
- Recordings can be saved online or on a mobile/computer device

Supporting SEL standards – **Goal 1-** Develop backgrounds and music to help create a sense of emotion or feeling to the production, such as fast music to create excitement, slow music for sadness...etc.. **Goal 2 –** Increase social awareness and interpersonal skills by recording scripts that show what to do and what not to do within a social interaction. Example- How to respond to a bully, how to stand up for someone being bullied. **Goal 3-** Students can demonstrate decision-making skills by participate in creating safety rules on production set or theater set prior to the start of the work.

MEDIA ARTS

PRODUCING

Integrate – Anchor Standard 4: Select, analyze, and interpret artistic work for presentation.

- MA:Pr4.1.K a. With guidance, combine art forms and media content (for example, dance, video) to form media artworks for presentation.
- MA:Pr4.1.1 a. Combine varied content (for example, arts, media, literary, science) in media artworks for presentation (for example, an illustrated story).
- MA:Pr4.1.2 a. Practice combining varied content (for example, arts, media, literary, science) in media artworks for a unified presentation (for example, an illustrated story).
- MA:Pr4.1.3 a. Practice fusing varied content (for example, arts, media, literary, science) into unified media artworks for presentation (for example, animation, music, dance).
- MA:Pr4.1.4 a. Demonstrate how a variety of content (for example, arts, media, other academic curriculum forms) may be integrated into media artworks for presentation.
- MA:Pr4.1.5 a. Create media artworks integrating multiple contents and forms in order to reach a given audience.



Adobe Spark

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

- Create videos, webpages and audio incorporating many media formats
- Users can create online, iOS or Chromebook. All files are stored online
- Many ideas can be found within the Educators Guide that is available online as well.



Video Collage

<https://itunes.apple.com/us/app/video-collage-free-vid-frame/id712175767?mt=8>

- Simple collage builder with frames built in to create video or photo videos
- Add your own music, a background and effects
- Collages can be shared or saved to the photo album of the device

Supporting SEL standards – **Goal 1-** Develop self-management skills by creating media projects identifying community members that can support student when they need it...teachers, principal, nurse, coach, aide. **Goal 2** – Increase social awareness by creating a media project that shows students participating in an activity or simulation that allows them to experience life from the perspective of another group or use literature to analyze various responses to human diversity (e.g., learning from, being tolerant of, aware of stereotyping). **Goal 3-** Students can demonstrate decision-making by creating a media project on how to apply decision-making skills to deal responsibly with daily academic and social situations.



Practice – Anchor Standard 5: Develop and refine artistic techniques and work for presentation.

- MA:Pr5.1.1 a. Describe various artistic skills and roles (for example, technical steps, planning, collaborating) in media arts productions and presentations.
- MA:Pr5.1.2 a. Enact roles to demonstrate basic ability in various identified artistic, design, technical, and soft skills (for example, tool use, decision making, collaboration) in media arts productions and presentations.
- MA:Pr5.1.3 a. Exhibit developing ability in a variety of artistic, design, technical, and organizational roles (for example, manipulating tools, making decisions, group planning) in media arts productions and presentations.
- MA:Pr5.1.4 a. Enact identified roles to practice foundational artistic, design, technical, and soft skills (for example, formal technique, equipment usage, production, collaboration) in media arts productions and presentations.
- MA:Pr5.1.5 a. Enact various roles to practice fundamental ability in artistic, design, technical, and soft skills (for example, formal technique, production, collaboration) in media arts productions and presentations.



Trello collaboration

<https://trello.com/home>

- Team collaboration board that shows the progress of a project with “cards”
- To-Do lists, assignment of roles, checklists, due dates or anything needed for the group
- Can be simple to complex as need per grade and project



Draw.io

<https://www.draw.io/>

- Online flowchart, mapping, diagram drawing and design platform, assign roles and structure of the team
- Create theater sets, dance choreographies or layouts for media designs in an online collaborative environment.

Supporting SEL standards – **Goal 1-** Develop self-management skills by demonstrating skills related to achieving goals by managing steps, setting short and long term goals with to-do list, check lists and structures. **Goal 2** – Increase social awareness by collaborating online using communication and social skills using feedback to give complements and encouragement during the project. **Goal 3-** Students can demonstrate decision-making by creating a media project on how to apply decision-making skills to deal responsibly with daily academic and social situations.



Relate- Anchor Standard 11: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

- MA:Cn11.1.1 a. Discuss and describe media artworks in everyday life (for example, popular media, connections with family and friends).
- b. Interact appropriately with media arts tools and environments, considering safety, rules, and fairness.
- MA:Cn11.1.3 a. Identify how media artworks and ideas relate to everyday and cultural life and can influence values and online behavior.
- b. Examine and interact appropriately with media arts tools and environments, considering safety, rules, and fairness.
- MA:Cn11.1.4 a. Explain verbally and/or in media artworks how media artworks and ideas relate to everyday and cultural life (for example, fantasy and reality, technology use).
- b. Examine and interact appropriately with media arts tools and environments, considering ethics, rules, and fairness.
- MA:Cn11.1.5 a. Research and show how media artworks and ideas relate to social and community life (for example, exploring commercial and information purposes, history, ethics).
- b. Examine, discuss, and interact appropriately with media arts tools and environments, considering ethics, rules, and media literacy.



My Pop Studio

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

- Students go behind the scenes within four media platforms to find out how media influences teenagers
- Discover how Magazine layouts, TV studios, Music studio and a digital studio with social media impact life around us



Common Sense Media Digital Citizenship Curriculum

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

- Grade band specific resources, online and paper/pencil, for all grade levels – including parent-community activities.
- Professional development modules available as well.
- [Digital passport](#) is the online game/app for 3-5 students

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by recognizing external supports available when questioning Fact or Fiction of advertising or commercial media around students today. **Goal 2** – Increase social awareness in the use of social media for students and digital citizenship in communication. **Goal 3-** Students can demonstrate decision-making by considering ethical, safety, and societal factors in making internet safety.

MUSIC

CREATING

Anchor Standard 2: Organize and develop artistic ideas and work.

- MU:Cr2.1.1 b. With limited guidance, use iconic or standard notation and/or recording technology to document and organize personal musical ideas.
- MU:Cr2.1.2 b. Use iconic or standard notation and/ or recording technology to combine, sequence, and document personal musical ideas.
- MU:Cr2.1.3 b. Use standard and/ or iconic notation and/ or recording technology to document personal rhythmic and melodic musical ideas.
- MU:Cr2.1.4 b. Use standard and/or iconic notation and/or recording technology to document personal rhythmic, melodic, and simple harmonic musical ideas.
- MU:Cr2.1.5 b. Use standard and/ or iconic notation and/ or recording technology to document personal rhythmic, melodic, and increasingly complex harmonic musical ideas.

Music Theory.Net

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



- Music lesson, exercises and tools for note identification, scales, tempo and rhythm
- 10 different tools to assist in creation of music
- Over 50 lessons and exercises in many categories with a “pop-up” keyboard available on every screen

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by identifying music that connects to emotions and feelings. Examples—what sounds funny, sad, scary, happy, excited...etc. **Goal 2** – Increase social awareness and social skills to interact effectively with others by taking turns and sharing instruments and other resources with classmates and practice sharing encouraging comments with others. **Goal 3-** Students can demonstrate decision-making by creating calming strategies with the integration of music. Develop other strategies to handle situations of emotion in the classroom where music may assist.

THEATRE

PERFORMING

Prepare – Anchor Standard 5: Develop and refine artistic techniques and work for presentation.

- TH:Pr5.1.1 b. With prompting and support, identify technical elements (costumes, lights, props, set, sound) that can be used in a guided drama experience (for example, process drama, story drama, creative drama).
- TH:Pr5.1.2 b. Explore technical elements (costumes, lights, props, set, sound) in a guided drama experience.
- TH:Pr5.1.3 b. Identify the basic technical elements (costumes, lights, props, set, sound) that can be used in a drama/theatre work.
- TH:Pr5.1.4 b. Propose the use of technical elements in a drama/theatre work.
- TH:Pr5.1.5 b. Demonstrate the use of technical elements in a drama/theatre work.



Next Vista for Learning

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

- Library of videos created by students and teachers, many about drama and video creation
- How To videos on technical use of theater equipment, video equipment...etc.
- Include videos on Puppeteering and stop motion recordings



Classic Cat Music Catalog

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

- 6000 downloadable music files of classic music that is creative commons usage rights
- Choose the artist and then the song you would like to download.

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by creating videos or performances that identify student's choice- things they like to do, things they do well, special skills or talents, situations where they are confident and situations where they need help. **Goal 2** – Increase social awareness by creating media that demonstrate how students help each other, demonstrate honesty and fairness or follow rules. **Goal 3-** Students can demonstrate decision-making practicing group decision making by having production meetings while working on a group project.

VISUAL ARTS

PRESENTING

Relate – Anchor Standard 4: Select, analyze, and interpret artistic work for presentation.

- VA:Pr4.1.3 a. Investigate and discuss possibilities and limitations of spaces, including electronic, for exhibiting artwork.
 VA:Pr4.1.4 a. Compare and contrast how technologies have changed the way artwork is preserved, presented, and experienced.



Seesaw Digital Portfolio

<http://web.seesaw.me/>

- Digital portfolio system that allows students to upload their work and add comments either graphically or with video/audio
- Students can offer and receive peer feedback (monitored), parents can see their students work from online as well.



Weebly for Education

<http://education.weebly.com/>

- Educational accounts allow for multiple student websites or educators can have one class website and assign a page to each student as an editor.
- Pages can have a password so online viewing is controlled
- Educators can also upload artwork without student names and create an online “museum”

Select – Anchor Standard 5: Develop and refine artistic techniques and work for presentation.

- VA:Pr5.1.4 a. Analyze the various considerations for presenting and protecting art in various locations, indoor or outdoor settings, in temporary or permanent forms, and in physical or digital formats.

Analyze – Anchor Standard 6: Convey meaning through the presentation of artistic work.

- VA:Pr6.1.2 a. Analyze how art exhibited inside and outside of schools (for example, in museums, galleries, virtual spaces, and other venues) contributes to communities.



Google Arts & Culture

<https://www.google.com/culturalinstitute/beta/u/0/>

- 60 art and culture museums from around the world
- Search by artist, medium or artistic movement, Platform also has projects for educators



National Gallery of Art

<http://www.nga.gov/content/ngaweb.html>

- Explore all of the current exhibits of this Washington DC museum and interactives
- Educators can access many lessons and other resources

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by creating an online portfolio of student work where the students select and display items that convey a theme or specific meaning to them (Some items could be photos of non-digital created items). **Goal 2** – Increase interpersonal skills by adding a feedback tool or blog post section to each of the online exhibits so classmates can leave encouragement for peers. **Goal 3-** Students can demonstrate decision-making by posting a reflection on their online gallery about the items chosen to display...why these items and what they would like to do next.

MATHEMATICS

STANDARDS FOR MATHEMATICAL PRACTICE

MP

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically.

OPERATIONS AND ALGEBRAIC THINKING

OA

Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking from. Drawings need not show details, but should show the mathematics in the problem. (This applies whenever drawings are mentioned in the standards.)

- K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings (Drawings need not show details, but should show the mathematics in the problem), sounds (e.g., claps), and acting out situations, verbal explanations, expressions, or equations.



NCTM Illuminations- TEN FRAME Apelet

<http://illuminations.nctm.org/Activity.aspx?id=3565>

- Four games can be played with the APP on either desktop (and interactive whiteboard) or tablet
- Includes educator's instructions, resources and related connections



NCTM Illuminations- How Many Under The Shell

<http://illuminations.nctm.org/Activity.aspx?id=3566>

- After Okta hides some bubbles under a shell, he then either adds more bubbles or takes some away
- Includes educator's instructions, resources and related connections



Show Me app

<https://itunes.apple.com/us/app/showme-interactive-whiteboard/id445066279?mt=8>

- Interactive whiteboard app that can record the activity and voice of the student on the iPad
- Students can draw while depicting a mathematical problem

Multiply and divide within 100.

- 3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.



Bunny Times

<http://illuminations.nctm.org/Activity.aspx?id=6801>

- Facts up to 12×12 using visual models that stress the conceptual aspects of multiplication
- multiplication facts 2×2 through 12×12 . The early levels of the game introduce children to an array model of multiplication

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

- 3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.



Primary Krypto

<http://illuminations.nctm.org/Activity.aspx?id=3569>

- Combine five number cards using the four arithmetic operations (+, −, ×, ÷) to arrive at a "target" number

Generate and analyze patterns.

- 4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.



Patch Tool

<http://illuminations.nctm.org/Activity.aspx?id=3577>

- Produce square patches with a pattern on them just like quilters and other designers
- These square patches are then repeated and connected to produce a larger pattern

Splash Math 4.OA.5

<https://www.splashmath.com/common-core-math/fourth-grade/operations-and-algebraic-thinking/5>

- Generate a number or shape pattern that follows a given rule. (second game without given rule)
- Identify apparent features of the pattern that were not explicit in the rule itself.



Analyze patterns and relationships.

- 5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.

**Cyberchase – Stop That Creature**
<http://pbskids.org/cyberchase/math-games/stop-creature>

- Learners stop clones by determining the rule that runs the machine.
- Learners problem-solve and demonstrate their understanding of addition, subtraction, multiplication, and division.

**Pan Balance- Numbers**
<http://illuminations.nctm.org/Activity.aspx?id=3530>

- Strengthen understanding and computation of numerical expressions and equality
- Many students view "=" as "find the answer." For these students, it is difficult to understand equations such as $11 = 4 + 7$ or $3 \times 5 = 17 - 2$.

NUMBER AND OPERATIONS IN BASE TEN**NBT***Work with Numbers 11-19 To Gain Foundations for Place Value.*

- K.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

**Grouping and Grazing**
<http://illuminations.nctm.org/Activity.aspx?id=3526>

- Move cows into corrals by counting, adding, and subtracting
- This activity helps children learn grouping, tally marks, and place value.

**Numbers and Operations -Base Ten**
<https://www.splashmath.com/common-core-math/kindergarten/numbers-and-operations-in-base-ten>

- Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as $18 = 10 + 8$)

Use place value understanding and properties of operations to add and subtract.

- 2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- 2.NBT.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

**Deep Sea Duel**
<http://illuminations.nctm.org/DeepSeaDuel/>

- the first person to choose cards with a specified sum wins. You can choose how many cards, what types of numbers
- Students can "duel" each other or the "Okta" computer character. Available online, iOS or Android app.

MEASUREMENT AND DATA**MD***Classify Objects and Count the Number of Objects in Each Category.*

- K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. Limit category counts to be less than or equal to 10.

**Creature Duty**
<http://pbskids.org/oddsquad/games/creatureduty/>

- Keep these odd creatures happy by making sure each gets their fair-share of the right kind of food.
- Hone your sorting and dividing skills, and you'll earn more astoundingly odd creatures to care for.

**Sid the Science Kid – Sorting Box**
http://pbskids.org/sid/fablab_sortingbox.html

- Sort rocks with this Flash interactive.
- Use your observational skills to make sure the rocks go into the right column



Measure lengths indirectly and by iterating length units.

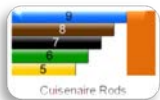
1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.



Order Objects by Length

<https://www.splashmath.com/common-core-math/first-grade/measurement-and-data>

- Two apelets to order objects by length for use online with either computers, tablets or interactive whiteboards.



Cuisenaire Rods

<http://www.mathplayground.com/mathbars.html>

- Explore number concepts, fractions, measurement and more with this multi-purpose math manipulative
- Drag and drop bars of different size onto a grid for comparison. (Can remove grid lines and numbers on the bars)

Represent and interpret data.

1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.



Google Sheets

<https://gsuite.google.com/learning-center/products/sheets/get-started/>

- Google sheets will help students collect and organize data then transform into graphs for visual interpretations
- An example of a lesson for graphing (for Excel, but works in Sheets)
<http://askatechteacher.com/2010/09/27/71-beginning-graphs-in-ms-excel/>

Relate addition and subtraction to length.

2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.



Smart Exchange - Length and Adding (measuring items with a ruler and other standard items)

<http://exchange.smarttech.com/details.html?id=547c709b-a7c2-4e95-979e-dab7309db599>

- Interactive SmartBoard Notebook file (This can be played online using the Smart Notebook Express platform and clicking with a mouse- no Smart Board is needed.) Tablets will work also
- The file can be edited on this platform as well to personalize and save to the users computer



Smart Exchange - A Day in the Cafe (making change and cost of goods in a café)

<http://exchange.smarttech.com/details.html?id=25104ddf-8131-4db2-bd86-3684a6a1baa5>

- Interactive SmartBoard Notebook file (This can be played online using the Smart Notebook Express platform and clicking with a mouse- no Smart Board is needed.) Tablets will work also
- The file can be edited on this platform as well to personalize and save to the users computer

2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.



Math Learning Center – Number Line <http://www.mathlearningcenter.org/web-apps/number-line/>

- Interactive number line- whole number, fractions, decimals, negative numbers..etc.

Work with time and money.

2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.



Smart Exchange – Telling Time <http://exchange.smarttech.com/details.html?id=b1eb4f55-c750-49ff-8141-c7a7403d6314>

- Interactive number line- whole number, fractions, decimals, negative numbers..etc.

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

3.MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.



Read and Set Time (Free account activity)

<https://www.splashmath.com/common-core-math/third-grade/measurement-and-data>

- Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.



Clock Works

<http://mrnussbaum.com/clockworks/>

- The easy setting includes times that end in :00, :15, :30, or :45. The advanced setting includes times to one-minute intervals, and the challenge setting includes difficult elapsed time problems
- The game will work on tablets as well as computers.

Represent and interpret data.

3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.



Data Grapher

<https://illuminations.nctm.org/Activity.aspx?id=4098>

- The Basic Data Grapher can be used to analyze data with bar graphs, line graphs, pie charts, and pictographs.
- Users can enter multiple rows and columns of data, select which set(s) to display in a graph, and choose the type of representation.

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

4.MD.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table.



Mathframe.co.uk

http://mathsframe.co.uk/en/resources/resource/87/itp_measuring_scales

- This ITP allows you to add different masses to or from a scale pan. You can add masses of 1, 2, 5, 10, 50, 100 and 500 units. The pointer or hand shows the total mass.
- Made for interactive whiteboards and based on the metric system measurements



Measurement Mania Metric and Standard

http://www.sheppardsoftware.com/mathgames/measurement/measurement_mania_metric.htm

http://www.sheppardsoftware.com/mathgames/measurement/measurement_mania_imperial.htm

- Compare units of measurements in an interactive platform

4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.



Counting Money

<http://www.mathnook.com/math/countingmoneyadv.html>

- Choose denominations to add up to the correct dollar amount
- Multiple different combinations are correct answers



Coin Box

<http://illuminations.nctm.org/coinbox/>

- Learn how to count, collect, exchange, and make change for coins.
- The coin tiles help you count as you learn the value of each coin.

GEOMETRY

G

Analyze, Compare, Create, And Compose Shapes.

K.G.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

K.G.6 Compose simple shapes to form larger shapes. For example: "Can you join these 2 triangles with full sides touching to make a rectangle?"



Math Learning – Pattern Shapes

<http://www.mathlearningcenter.org/web-apps/pattern-shapes/>

- Very simple shape drawing platform for online and tablets
- Choose from many shapes and colors. Will also work on interactive white boards

Reason with shapes and their attributes.

- 1.G.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

**Geometric Solids**

<https://illuminations.nctm.org/Activity.aspx?id=3521>

- Learn about various geometric solids and their properties.
- Users can manipulate and color each shape to explore the number of faces, edges, and vertices.

**Shape Tool**

<https://illuminations.nctm.org/Activity.aspx?id=3587>

- This tool allows you to create any geometric shape imaginable. Squares, triangles, rhombi, trapezoids and hexagons can be created, colored, enlarged, shrunk, rotated, reflected, sliced, and glued together.

- 1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Students do not need to learn formal names such as "right rectangular prism."

**Isometric Drawing Tool**

<https://illuminations.nctm.org/Activity.aspx?id=4182>

- Use this interactive tool to create dynamic drawings on isometric dot paper.
- Draw figures using edges, faces, or cubes.

- 2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

**Geoboard (online and iOS app)**

<http://www.mathlearningcenter.org/resources/apps/geoboard>

- Create line segments and polygons by stretching bands around the Geoboard's pegs.
- Fill individual shapes with a transparent color, or use the Fill All button to toggle all the bands between filled and unfilled.

- 1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

- 2.G.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

**Equivalent Fractions**

<https://illuminations.nctm.org/Activity.aspx?id=3510>

- Create equivalent fractions by dividing and shading squares or circles, and match each fraction to its location on the number line.

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

- 4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Study***ladder***

Parallel and Perpendicular Lines

<https://www.studyladder.com/play/activity-new/id/28459>

- Choose the correct identity and classification of the lines and segments
- Studyladder is a free platform for students during the school day

**Sketchbook Express App**

<https://itunes.apple.com/us/app/sketchbook-express-for-ipad/id410871280?mt=8>

- Free sketchbook from Autodesk that has a multi-touch interface, high quality brushes and tools (15 preset brushes including pencils, pens, markers and fill tool), layers (duplicate, merge and reorder layers)

- 4.G.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

**Mission Symmetry**

http://www.bbc.co.uk/bitesize/ks2/maths/shape_space/symmetry/play/

- Defend against the robots by unlocking the doors and taking the energy rods. To unlock the doors users must draw lines of symmetry on each shape, from 1 to 8 lines per shape.

Graph points on the coordinate plane to solve real-world and mathematical problems.

- 5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).



Game Over Gopher

<http://mathsnacks.com/game-over-gopher.html>

- Topics such as plotting coordinate pairs, differentiating negative coordinates from positive coordinates, and identifying the four quadrants.
- Users can play the game in English or Spanish

- 5.G.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.



Math Chimp – Space Blocker

<http://www.zachdeluna.com/spaceblocker.html>

- Protect the space station from incoming asteroids by dropping interceptors using the Cartesian coordinate system
- Website has little help on how to use, a little practice is needed.

NUMBER AND OPERATIONS—FRACTIONS

NF

Develop understanding of fractions as numbers.

- 3.NF.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
- 3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.
- 3.NF.2.a Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.
- 3.NF.2.b Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.



Fraction Dominoes

<https://www.turtlediary.com/game/fraction-models.html>

- In this game, kids need to match the values of domino tile with the adjacent domino tile and finish the domino tiles as soon as they can.

- 3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
- 3.NF.3.a Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
- 3.NF.3.b Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
- 3.NF.3.c Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.
- 3.NF.3.d Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.



Concentration

<https://illuminations.nctm.org/Activity.aspx?id=3563>

- By yourself or against a friend, match whole numbers, shapes, fractions, or multiplication facts to equivalent representations

Equivalent Fractions Notebook

<http://exchange.smarttech.com/details.html?id=d2998ccb-26e5-443e-a126-882a09ca95e8>

- Compare fractions in several interactive examples
- Notebook can be used online in the Smart Board express platform without a smart board or notebook software



Use equivalent fractions as a strategy to add and subtract fractions.

- 5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.



Playing Fraction Track

<https://illuminations.nctm.org/Activity.aspx?id=6382>

- Students take timed turns racing to the end of each fraction line by moving one or more of their markers to sum to a given fraction value.
- Options include a pass and restart button.

Supporting SEL standards – **Goal 1-** Develop self-management skills by recognizing external supports and identifying people who can give you the help you need when struggling including peers in group activities. **Goal 2** – Increase interpersonal skills by demonstrating how students help each other to discuss multiple ways to achieve mastery and share with other students. **Goal 3-** Students can demonstrate responsible behaviors by recognizing that one has choices in how to respond to situations in the classroom such as disagreements in group or partner work.

PHYSICAL DEVELOPMENT AND HEALTH

ACHIEVE AND MAINTAIN A HEALTH-ENHANCING LEVEL OF PHYSICAL FITNESS BASED UPON CONTINUAL SELF-ASSESSMENT.

Assess Individual Fitness Levels.

- 20.B.2a Monitor individual heart rate before, during, and after physical activity, with and without the use of technology.
20.B.2b Match recognized assessments of health-related fitness (e.g., FitnessGram) to corresponding components of fitness.



Kidnetic

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

- Explore what is going on within the heart during physical activity with interactive games
- Platform includes many health/fitness interactive games and manipulatives geared towards K-5 students



Champions for Change

<http://www.eatwellbewell.org/kids/activities-and-games>

- Arizona's Nutrition Network's activities and games for K-5 students
- Healthy food choices and how they affect fitness and overall health

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by understanding physical responses to emotions and behaviors during games and conflicts. **Goal 2** – Increase social awareness by analyzing how students being left out might feel when games and use a random selection for teams instead of student team captains. **Goal 3-** Students can demonstrate decision-making by choosing healthy snacks and daily exercise using a log and chart as a class to compare or graph the data.

UNDERSTAND PRINCIPLES OF HEALTH PROMOTION AND THE PREVENTION AND TREATMENT OF ILLNESS AND INJURY.

Describe And Explain The Factors That Influence Health Among Individuals, Groups, And Communities.

- 22.B.2a Describe how individuals and groups influence the health of individuals (e.g., peer pressure, media and advertising).



My Pop Studio

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

- A behind the scenes looks at media platforms to see how they influence preteens/teens view of themselves and social relationships
- Students can design in a magazine layout, music studio, TV studio and discover the impact of social media.

PROMOTE AND ENHANCE HEALTH AND WELL-BEING THROUGH THE USE OF EFFECTIVE COMMUNICATION AND DECISION-MAKING SKILLS.

Demonstrate Skills Essential To Enhancing Health And Avoiding Dangerous Situations.

- 24.C.2a Describe situations where refusal skills are necessary (e.g., cyber bullying, pressure to smoke, use alcohol, and other drugs; join gangs; physical abuse; and exploitation).



Professor Garfield – Cyberbullying

<https://itunes.apple.com/us/app/professor-garfield-cyberbullying/id369171501?mt=8>

- A behind the scenes looks at media platforms to see how they influence preteens/teens view of themselves and social relationships
- Students can design in a magazine layout, music studio, TV studio and discover the impact of social media.

Blabberize<http://blabberize.com/>

- Video creation website that allows students to upload (or use an online) photo and record audio. The tool edits the “mouth” of the photo to sync with the recorded audio while speaking the student’s words.
- This method can allow students to create messages around topics that may be difficult to discuss in a less stressful environment, and open dialogues between all students.

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by identifying values that help you make good choices. **Goal 2** – Increase social awareness by identifying bullying behavior and how it affects people have create a video showing a situation where bullying has been stopped. **Goal 3-** Students can demonstrate decision-making by choosing to walk away from a bully or stand up for another student being bullied.

SCIENCE (NGSS)

MATTER AND ITS INTERACTIONS

STUDENTS WHO DEMONSTRATE UNDERSTANDING CAN.....

- 5-PS1-1 Develop a model to describe that matter is made of particles too small to be seen. *Clarification Statement: Examples of evidence could include adding air to expand a basketball, compressing air in a syringe, dissolving sugar in water, and evaporating salt water. Assessment Boundary: Assessment does not include the atomic-scale mechanism of evaporation and condensation or defining the unseen particles.*

**Science Crash Course Kids!**<https://www.youtube.com/user/crashcoursekids>

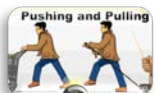
- YouTube Channel for elementary students dedicated to science. Specific videos on Part(icles) of your world, What’s Matter, Hunting for Properties.
- If YouTube is difficult to view or distracting, try viewing through www.safeshare.tv, this will remove the “additional” popups.

**Toca Lab App**<https://tocaboca.com/app/toca-lab/>

- Mobile app for iOS, Android and Kindle Fire for elementary students that includes activities with the periodic table, mixtures, and other experiments
- Student have access to a centrifuge, Bunsen burner, cooling agent, test tubes and oscilloscope.

MOTION AND STABILITY: FORCES AND INTERACTIONS

- K-PS2-1 Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. *Clarification Statement: Examples of pushes or pulls could include a string attached to an object being pulled, a person pushing an object, a person stopping a rolling ball, and two objects colliding and pushing on each other. Assessment Boundary: Assessment is limited to different relative strengths or different directions, but not both at the same time. Assessment does not include non-contact pushes or pulls such as those produced by magnets.*
- K-PS2-2 Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.* *Clarification Statement: Examples of problems requiring a solution could include having a marble or other object move a certain distance, follow a particular path, and knock down other objects. Examples of solutions could include tools such as a ramp to increase the speed of the object and a structure that would cause an object such as a marble or ball to turn. Assessment Boundary: Assessment does not include friction as a mechanism for change in speed.*

**Push & Pull Science Clips** http://resources.hwb.wales.gov.uk/VTC/push_pull/eng/Introduction/default.htm

- Interactive whiteboard activity for students to understand the concept of push and pull.
- Can be played on a computer or tablet individually or as a group

**Piggy Push Game**<http://www.coolmath-games.com/0-piggy-push>

- Strategy game to push the boxes into the correct location in the puzzle
- There are other game ads on the website, so caution and monitoring is needed.

**Pushes and Pulls Science Clips** http://www.bbc.co.uk/schools/scienceclips/ages/5_6/pushes_pulls.shtml

- Students can choose between hard or soft pushes/pulls and friction of the track to move an object to see the change in distance.

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by identifying emotions that are triggered by various situations such as persevering through trials and experiments. Monitoring progress towards academic goals within a game or experiment.

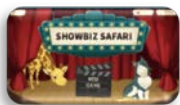
Goal 2 – Increase social awareness by recognizing the feelings of others by listening to the perspective of others. **Goal 3-** Students can demonstrate decision-making by brainstorming alternative solutions.



LIFE SCIENCE

FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES

- 1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive. *Clarification Statement: Examples of patterns of behaviors could include the signals that offspring make (such as crying, cheeping, and other vocalizations) and the responses of the parents (such as feeding, comforting, and protecting the offspring).*



Showbiz Safari

<https://ssec.si.edu/showbiz-safari>

- Help the director pick actors based on their “traits” to best fit for a movie role.
- The game looks at the diversity of plants and animals of various habitats and behaviors.



How Animals Meet Their Needs

<http://www.harcourtschool.com/activity/animalneeds/animals.swf>

- Students are given an animal and an adaptation. The student finds what need that adaption fulfills.

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by identifying personal traits and behaviors they may have that match their families. **Goal 2** – Increase social awareness by recognizing traits within social situations that help friends get along and traits that create disagreements. **Goal 3-** Students can demonstrate decision-making by identifying foods and behaviors that keep the body healthy.



EARTH AND SPACE

EARTH'S PLACE IN THE UNIVERSE

- 5-ESS1-2 Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. *Clarification Statement: Examples of patterns could include the position and motion of Earth with respect to the sun and selected stars that are visible only in particular months. Assessment Boundary: Assessment does not include causes of seasons.*



Plotly

<https://chrome.google.com/webstore/detail/plotly/khajkhinhblhaenlhpodnblkmpdgcne>

- Chrome App that allows students to create graphs and charts easily without an account
- Import information from Google Drive, share online and in presentations



Journey North

<https://www.learner.org/jnorth/>

- Global platform for climate and migration study data
- Class accounts can upload their data and participate online with other classrooms



EARTH'S SYSTEMS

- 3-ESS2-1 Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. *Clarification Statement: Examples of data could include average temperature, precipitation, and wind direction. Assessment Boundary: Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.*
- 3-ESS2-2 Obtain and combine information to describe climates in different regions of the world.
- 4-ESS2-2 Analyze and interpret data from maps to describe patterns of Earth's features.* *Clarification Statement: Maps can include topographic maps of Earth's land and ocean floor, as well as maps of the locations of mountains, continental boundaries, volcanoes, and earthquakes.*
- 2-ESS2-3 Obtain information to identify where water is found on Earth and that it can be solid or liquid.



NASA's Climate Kids - Weather

<http://climatekids.nasa.gov/menu/weather-and-climate/>

- Videos, research, games and teacher resources
- Many resources pulled from other agencies....EPA, National Parks...etc.



Visualizing Seasons

<http://static.lawrencehalloffscience.org/kidsite/portfolio/seasons/>

- Interactive simulation of the Earth as it rotates and changes seasons/weather patterns
- Latitudes are notated on the simulation (Chicago is noted)



EARTH AND HUMAN ACTIVITY

- 4-ESS3-1 Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment. *Clarification Statement: Examples of renewable energy resources could include wind energy, water behind dams, and sunlight; non-renewable energy resources are fossil fuels and fissile materials. Examples of environmental effects could include loss of habitat due to dams, loss of habitat due to surface mining, and air pollution from burning of fossil fuels.*
- 5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.



NASA's Climate Kids - Energy

<http://climatekids.nasa.gov/menu/energy/>

- Videos, research, games and teacher resources
- Many resources pulled from other agencies....EPA, National Parks...etc.



Energy Star Kids

https://www.energystar.gov/index.cfm?c=kids.kids_index

- Resources on many forms of energy and energy saving concepts
- Many ideas on how students can help the planet with recycling and energy conservation

Supporting SEL standards – **Goal 1-** Develop self-management skills by identifying ways students can contribute to Earth's global health, climate awareness, etc. **Goal 2** – Increase social awareness by discussion and researching ways to constructively resolve conflicts environmental crisis either locally or globally. **Goal 3-** Students can demonstrate decision-making by plan and implement a project to improve the local communities environment.

SOCIAL SCIENCE

INQUIRY SKILLS

Determining Helpful Sources

- SS.IS.2.K-2 Explore facts from various sources that can be used to answer the developed questions.



Ducksters

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

- Early elementary friendly research website- Picture category selection
- Results are simple and condensed in lower reading levels



Kiddle search engine

<http://kiddle.co/>

- Safe search filtered, top 3 results are "just for kids", next 4 will be simple to read and everything else will still be filtered
- All will have a graphic thumbnail next to the description



Kidrex search engine

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

- Powered by Google – safe search updated daily for inappropriate websites
- Deletes inappropriate results based on keywords within the filtering system

Gathering and Evaluating Sources

- SS.IS.3.3-5 Determine sources representing multiple points of view that will assist in answering essential questions.



NewsELA (Pro/Con articles)

<https://newsela.com/>

- Current events from several news outlets in multiple reading levels for each article
- Educators can search for articles based on content- Including PRO/CON issues



Taking it Global

<http://www.tigweb.org/tiged/>

- Educators can connect their classroom with other classrooms around the world
- Share information, views and values with students living in another country on global issues

Gathering and Evaluating Sources

- SS.IS.3.K-2 Gather information from one or two sources with guidance and support from adults and/or peers.



National Geographic Kids

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

- The platform has engaging material and connections to content standards.
- Lesson ideas and resources for educators are available on all categories.

**Venngage**
<https://venngage.com/>

- Drag and drop platform to build infographics to show student information from 2 sources
- Create posters to compare and contrast or show progression of information

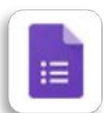
**Easel.ly**
<https://www.easel.ly/>

- Build infographics from pre-designed templates- easy for educators to create or students to present data
- Create graphics to compare and contrast or show progression of information

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by researching community resources or community helpers. **Goal 2** – Increase social awareness by researching the ways cultural groups differ from one another (e.g., holidays, foods, music, and customs), recognize that people who share a cultural tradition differ from one another in other ways, and recognize how diversity enriches a community. **Goal 3-** Students can demonstrate decision-making by considering ethical, safety, and societal factors in making decisions within many cultures.

Taking Informed Action

SS.IS.6.K-2 Use listening, consensus-building, and voting procedures to decide on and take action in their classrooms.

**Google Forms**
<https://gsuite.google.com/learning-center/products/forms/get-started/>

- Create survey forms to gather votes on class issues, surveys, math projects...etc.
- Easily use the spreadsheet data to graph the results to help with decisions

**Answer Garden**
<https://answergarden.ch/>

- Brainstorming or exit ticket where educators can create a question that has a 1-3 word answer that appears in a word cloud
- Questions can be embedded on a website or blog live (Educators have control prior to items being posted.)

Communicating Conclusions

SS.IS.6.3-5 Construct and critique arguments and explanations using reasoning, examples, and details from multiple sources.

ThingLink for Education

Thinglink for Education
<https://www.thinglink.com/edu>

- Students can create interactive multimedia graphics that can be embedded on websites or blogs
- Items from text, videos and website links can be connected to this graphic from many sources

**Edublogs**
<http://edublogs.org/>

- Educators can create a class or student blog pages where information can be placed from many resources to substantiate and argument or point of view
- Students do not need to have email accounts to access the platform

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by having students create polls to gather data on what situations make students stressed, happy, sad or scared...etc. Graph the data and brainstorm strategies to help with those emotions. **Goal 2** – Increase communication skills by practicing reflective listening and corporative group activities. **Goal 3-** Students can demonstrate decision-making by constructing an argument to persuade classmates to vote or become a candidate for office in a simulated local, state, and national election..

HISTORY

Change, Continuity, and Context

- SS.H.1.K Compare life in the past to life today.
- SS.H.1.3 Create and use a chronological sequence of events.
- SS.H.1.5 Create and use a chronological sequence of related events to compare developments that happened at the same time.

**Timeline JS**
<http://timeline.knightlab.com/>

- Simple timeline creation tool that hosts the timeline on their website and allows the user to embed the final creation on their own platform
- Multimedia and website links can be included in the timeline



World History

<https://itunes.apple.com/us/app/world-history-interactive/id922390335?mt=8>

- iOS app on world history Pre-History to Modern History (2014)
- Photos, news articles and videos

Historical Sources and Evidence

- SS.H.2.4 Using artifacts and primary sources, investigate how individuals contributed to the founding and development of Illinois.
- SS.H.2.5 Use information about a historical source—including the maker, date, place of origin, intended audience, and purpose—to judge the extent to which the source is useful for studying a particular topic.



Digital Research Library of Illinois

<http://livinghistoryofillinois.com/>

- A large collection of digital book resources of all areas of Illinois
- Includes audio recordings with photographs (All files with a red arrow)



Illinois State Museum

http://www.museum.state.il.us/ed_opp/activities.html

- Online activities from Anthropology to Zoology using the Illinois State Museum online resources
- Full lesson plans and activities with links to media within the museum shown on the computer

Supporting SEL standards – **Goal 1-** Develop self-awareness skills by identifying how the people in Illinois history or stories feel during their travels or adventures. **Goal 2** – Encourage social-awareness with discussions and activities recognizing how others interpreted situations differently in history than how we might today. **Goal 3-** Students can demonstrate and discuss responsible behaviors in ethical, safety and societal factors from historic events and locations and how that impacts today.

CIVICS

Civic and Political Institutions

- SS.CV.1.2 Explain what governments are and some of their functions
- SS.CV.1.5 Distinguish the responsibilities and powers of government officials at various levels and branches of government and in different times and places.



Branch-O-Mania

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

- Test students' knowledge of the three branches of government
- Fun interactive game about what the branches of government are responsible for governing



iCivics

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

- Many videos and interactive games on all the areas of government
- Educator resources for lessons and offline activities available as well

Supporting SEL standards – **Goal 1-** Encourage self-awareness and recognition of external supports by identifying community resources of the government that are local and how they can help students and families. **Goal 2** – Increase communication skills by practicing reflective listening and cooperative group activities. **Goal 3-** Students can demonstrate decision-making by constructing an argument to persuade classmates to vote or become a candidate for office in a simulated local, state, and national election..

Participation and Deliberation: Applying Civic Virtues and Democratic Principles

- SS.CV.3.3 Compare procedures for making decisions in the classroom, school, and community.



Draw.io

<https://www.draw.io/>

- Online flowchart, diagram design program. No login required unless user wants to save
- Can be used on an interactive whiteboard for whole class creations



Interactive Venn Diagram

http://www.readwritethink.org/files/resources/interactives/venn_diagrams/

- Create Venn Diagrams with multi-colored rings and labeled markers that can be placed anywhere on the diagram
- Diagrams can be printed or saved.
- Will work on a tablet, computer or interactive whiteboard



ECONOMICS AND FINANCIAL LITERACY

Economic Decision Making

- SS.EC.1.1 Explain and give examples of when choices are made that something else is given up.
 SS.EC.1.2 Demonstrate how our choices can affect ourselves and others in positive and negative ways.



Econedlink -Mayflower

<http://www.econedlink.org/tool/254/No-Extra-Room-Mayflower>

- Students must decide what to bring with them on the Mayflower. They can only take 150 pounds of supplies, so they must decide what to leave behind
- Click on the “movie” and a new window will open to show a suitcase with items to choose. Drag which items you would like to take but stay under 150 lbs



Econedlink -Pet

<http://www.econedlink.org/tool/247/Perfect-Pet>

- Students must decide how to deal with scarcity by having them choose what to buy for their new pet fish.
- There are some things they want and others that they need, but they can only spend \$5.00.
- Play just like the Mayflower above

Supporting SEL standards – **Goal 1**- Encourage self-awareness skills needed to achieve goals by creating classroom procedures or steps to complete a group or partner project using a flowchart or diagram. **Goal 2** – Increase social-awareness by recognizing the perspectives of others using a Venn diagram or other chart when discussing decisions or topics. **Goal 3**- Students can demonstrate responsible behaviors by implementing stop, think, and act (plan) strategies in solving problems when making decisions in group or partner conversations.

Financial Literacy

- SS.EC.FL.1.4 Analyze how spending choices are influenced by price as well as many other factors (e.g., advertising, peer pressure, options).



Don't Buy It – Advertising Tricks

<http://pbskids.org/dontbuyit/advertisingtricks/>

- Help students discover the tricks to advertising and be a detective to find the truth
- The website also has many educator resources for lessons and units for offline activities as well



Big Huge Labs

<http://bighugelabs.com/>

- Students can create magazine covers using built-in templates (Many other advertising media as well)
- Educators are offered a free account with verified school ID (see login info on website)

Supporting SEL standards – **Goal 1**- Develop self-management skills in making choices and analyzing how students might make a choice in a situation when pressured by media or peers. **Goal 2** – Increase social skills by creating advertising or media to promote being a good friend. **Goal 3**- Students can demonstrate responsible decision making skills by creating a list of items to purchase and the consequences of alternative choices in cost....wants vs needs.

GEOGRAPHY

Geographic Representations

- SS.G.1.1 Construct and interpret maps and other representations to navigate a familiar place.



Scribble Maps

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

- Create a map from simple templates adding text, graphics, shapes...etc.
- Include map locations, latitude and longitude....map landmarks or fieldtrips...etc.



Google Drawing

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

- Create a diagram of map using simple shapes on a grid style “paper”
- Integrates with Google Classroom and will work on an interactive white board so the activity could be presented as a whole class process first

Supporting SEL standards – **Goal 1**- Students can recognize external supports by designing a map of the school showing where to locate the nurse, principals office, secretary, speech office, etc.. **Goal 2** – Increase awareness of individual and group similarities and differences by creating and using a neighborhood map. Display the created map and have student discuss what activities around the neighborhood they (and families) participated in over the week(end). (either as an open discussion, groups or writing assignment.) **Goal 3**- Students can contribute to the well-being of the school and community by participating in discussion about what is available in the area around them.



Human-Environment Interaction

SS.G.2.3 Compare how people modify and adapt to the environment and culture in our community to other places.



NBC Learn

<https://www.nbclearn.com/portal/site/learn/resources>

- Extensive video collection of news events, writers talking to kids, science and math of hockey, civil rights and many more engaging topics
- All content is original and prepared for students



NY Times VR

<http://www.nytimes.com/marketing/nytvr/>

- Videos based on current and past news events in Virtual Reality (both iOS and Android)
- All videos will work without a VR tech tool and play on a projector or computer monitor



Human Population

SS.G.3.4 Describe some of the current movements of goods, people, jobs, or information to, from, or within Illinois, and explain reasons for the movements.



Pod To Plate

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

- Online games, lessons, resources for Illinois' soy bean industry
- Videos, photos, pintables, digital books
- More resources from Illinois Agriculture:

Smart Board Lessons- http://www.agintheclassroom.org/TeacherResources/smart_lessons.shtml

Interactive Magazines - <http://www.agintheclassroom.org/TeacherResources/AgMags.shtml>



My American Farm

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

- Games for PreK-5th grade in all content areas with a farm or health theme
- Includes educator lesson ideas and family activities



John Deere

https://www.deere.com/en_US/corporate/our_company/fans_visitors/kids/kids.page?

- History of the company, games and educator resources
- Videos of John Deere in action

Supporting SEL standards – **Goal 1**- Students can demonstrate skills related to achieving goals by recognizing how present goals build on the achievement of past goals. **Goal 2** – Increase awareness of individual and group similarities and differences by participating in a simulation (online game) that allows students to experience life from the perspective of another group (farmers). **Goal 3**- Students can demonstrate decision making in several farm games to analyze what they would do differently to grow better crops or increase production.