

Technology Curriculum
 *Suggested Curricular Activities: Grades K-2

Common Applications	K	1	2
<p>Word Processing (Google Docs or Word)</p>	<p>-Type names using correct upper and lower case letters.</p> <p>-Type a letter of the alphabet and insert a clipart image beginning with that letter.</p> <p>-Use the drawing tools to draw circles, triangles, squares, and rectangles. Use the fill tools to fill the shape with a specific color (e.g. color of the week, pattern, or self choice)</p>	<p>-Take a digital picture and write one to three sentences describing the picture.</p> <p>-Write own pattern book based on a picture book they've read together in class (<i>Brown Bear, Brown Bear; The Very Hungry Caterpillar</i>, etc.) Depending on the time of year, the teacher may provide a template for students to fill in.</p> <p>-Use the drawing tools and text boxes to show a math fact family.</p>	<p>-Take several pictures and write captions related to the pictures for each.</p> <p>-Use Kidspiration to form a topic sentence with three supporting details.</p> <p>-Write and publish poetry, illustrate with clipart.</p> <p>-Use the drawing tools and text boxes to show the results of an experiment.</p>
<p>Presentation Tools (Google Docs, Slide Rocket, Prezi, PowerPoint or other presentation tools.)</p>	-N/A	-From a template, use drawing tools to create pictures for parts of a story.	-From a template, students create slideshow describing themselves (i.e. family, hobbies, and/or favorites.)
<p>Spreadsheets (Google Docs or Excel)</p>	-As a whole group activity, graph birthday months, favorite candy bars, favorite colors, etc.	<p>-As a class, record the temperature over the course of a week, month, or school year.</p> <p>-As a class, record each student's state of birth and create a graph to</p>	-As a class, create an excel spreadsheet recording each student's favorite dinosaur. Collect data from another class and compare. Create a graph to display the data.

		display the data.	
Common Applications	K	1	2
Digital Camera	-Have each student choose a letter. Then, go on a walk around the school or in the neighborhood. When the child finds something that begins with that letter, take a picture of the child with that object. Use the pictures to create a class alphabet chart.	-Take a picture of self or a classmate and write a few sentences about the picture. -Take pictures of various items around the room to show whole number representations.	-Take a picture of self or a classmate and write biography or autobiography. -Take pictures of various representations of fractions.
Garage Band - iPads	N/A	-Explore Magic Garage Band -Play each of the Garage Band Music genres. Add, subtract, and change instruments. -Display the musical tracks of the Magic Garage Band song. -Use Podcast option to record students' reading fluency.	-Create a piece of music using Garage Band loops. add student voice. Send the song to iTunes. -Use the Podcast option to record student voice(s) in a group project.
Google Earth	-The teacher will locate Bridgeport, Illinois, and as a group the class will discuss familiar locations. -As a class locate their school.	-Use Google Earth to explore the Earth for land and water forms. ask students to notice how much water there is in proportion to land. -Dictate their address to the teacher who then types the address into Google Earth and creates a placemark.	-Use Google Lit Trips to explore a book. -Enter their addresses in Google Earth and "fly to" their homes. -Create placemarks for their home and school and make a path between them.
iMovie - iPads or Flip cameras can be used.	N/A	N/A	-Demonstrate the use of iMovie to make a class movie, involving

			students in the choice of transitions, music, and titles.
Common Applications	K	1	2
iPhoto - iPads and iPods	<ul style="list-style-type: none"> -Use a camera to take pictures and download the photos to iPhoto. -Take photos of living and non-living things in the environment. -Demonstrate using iPhoto to create a class calendar that incorporates major holidays and student birthdays. 	<ul style="list-style-type: none"> -Contribute photos for a class slide show. -Use a camera or image capturing device to document growth cycle of a plant to contribute to a class slide show. 	<ul style="list-style-type: none"> -Make own slide shows. -Take nature photos and make a slide show showing observable similarities and differences. -Make a slide show of photos that demonstrate symmetry.
Photo Booth - iPads and iPods	<ul style="list-style-type: none"> -Take a picture of self using on of the effects and then drag the photo into a type of word processor to add their names. 	<ul style="list-style-type: none"> -Take two pictures of self using different effects. Using a word processor, students will type this sentence: "This is me when I', feeling _____, and this is me when I feel _____." Import the picture for each part of the sentence. 	<ul style="list-style-type: none"> -Produce a movie by making a Popsicle stick puppet and narrating a story. -Take pictures of self and use them to create cards or other multimedia with iPhoto or a type of word processor.
Tux Paint - Please have tech department install software if you would like to use this program.	<ul style="list-style-type: none"> -Match pictures with letters. -Insert specific numbers of objects and match with the correct number. 	<ul style="list-style-type: none"> -Draw a picture and write a complete sentence using a capital letter to begin the sentence and correct ending punctuation. 	N/A
Kerpoof Note: For all Kerpoof lessons refer to lesson	<ul style="list-style-type: none"> -Use the "Patterns lesson plan at the Lesson Plan site to create colorful patterns with kindergarten and pre-k students. 	<ul style="list-style-type: none"> -Create a sports-related picture and story (use the "Celebrate Sport" lesson.) 	<ul style="list-style-type: none"> -Using a seasonal background in Make a Picture, students create a seasonal picture with at least 3

plans at Http://www.kerpoof.com/teach?c=lesson_plans			speech bubbles that describe their favorite season (use “Celebrate the Seasons” lesson plan.)
iPod Touches (Name of iPod Apps are in italics)	-Use <i>Pocket Phonics</i> to practice and reinforce letter and number recognition.	-Record students reading orally. Have them listen for oral reading fluency.	-Use <i>Coin Math</i> and <i>Telling Time</i> for reinforcement in math.
Common Applications	K	1	2
Smart Board and Mimio	-Learn the importance of orienting and adding pages while using a Smart Board or Mimio. Students will reinforce correct letter and number formation using a Smart Board or Mimio Gallery of Letters.	-Develop an understanding of how to use a Smart Board or Mimio pen and eraser tools and clear a page.	-Develop an understanding of Smart Board and Mimio tools like highlighter, arrows, shapes, magic pen, and screen capture.

Technology Curriculum

Preparing Students with the Technology Tools for Learning, Communication, and Productivity

*Suggested Curricular Activities: Grades 3-5

Common Applications	3	4	5
Word Processing (Google Docs, Word or other document creation tools)	<ul style="list-style-type: none"> -Take digital pictures of a community and write six facts. -Use the drawing tools to draw parts of a plant, group the parts, and use the text tool to describe the function of each. -Write a paragraph explaining the water cycle and illustrate with clip art. -Use drawing tools to demonstrate examples of flip, translate, rotate. 	<ul style="list-style-type: none"> -Write one paragraph with a topic sentence, three supporting details and a conclusion. -Use the drawing tools to draw insects, group the parts, and use the text tool to write a summary about their insect. -Write a rebus paragraph using clip art. Format the clip art to be "tight" with the text. 	<ul style="list-style-type: none"> -Write a three-paragraph essay on a historical topic (e.g., the Constitution, Revolutionary War, Civil War) using details to support the main idea. -Create a bulleted list of the battles in the Revolutionary or Civil War. -Use the drawing tools to draw the parts of a volcano and show the types of plate tectonics (divergent, convergent, transformation.) Group the parts and arrange the picture behind the text. Write a paragraph describing plate tectonics on top of the picture.
Presentation Tools (Google Docs, Slide Rocket, PowerPoint or other digital presentation tools)	<ul style="list-style-type: none"> -Take digital pictures of the different forms of water (rain, fog, clouds, hail, sleet, snow, frost, ice.) Import into a presentation and write captions. -Take pictures of the moon phases. Create a presentation from those pictures. 	<ul style="list-style-type: none"> -Build a digital presentation that identifies and describes each planet. 	<ul style="list-style-type: none"> -Build a presentation that identifies the types of volcanoes and their main features. -Create a spreadsheet entering the data showing the number of casualties in the different Civil War battles, and then create a graph.

Common Applications	3	4	5
Digital Camera	<ul style="list-style-type: none"> -Take pictures to represent classroom activities for the class newsletter. 	<ul style="list-style-type: none"> -Create a trading card with information about themselves and insert a picture. 	<ul style="list-style-type: none"> -Take a walk around the school taking pictures of important areas. -Have students draw a map of the school, importing the pictures to show their locations.
Garage Band - iPads	<ul style="list-style-type: none"> -Create a class project using Garage Band to produce a podcast that incorporates a sound track and sound track to demonstrate an understanding of Lawrence County history. -Create a class song that incorporates a voice track and sound track to demonstrate an understanding of multiplication facts of the steps of long division. 	<ul style="list-style-type: none"> -Working in pairs, use Garage Band to produce an enhanced podcast that incorporates multiple voice tracks, sound tracks, and images to show an understanding of Illinois history, geography, or Native cultures. -Use Garage Band to produce an enhanced podcast that incorporates voice tracks and sound tracks to demonstrate an understanding of our solar system and celestial bodies. 	<ul style="list-style-type: none"> -Working individually or in pairs, create a podcast using Garage Band to show an understanding of important issues in United States history. -Use Garage Band to produce an enhanced podcast that incorporates voice tracks and sound track to demonstrate and understanding of human body systems.
Google Earth	<ul style="list-style-type: none"> -Using waypoints, create a placemark for important places in Lawrence County history. In the placemark, include a description of the place. -Create placemarks, make a path between them and measure the distance between two points. 	<ul style="list-style-type: none"> -Use Google Earth to explore the planets and constellations. -Create a placemark for an important Illinois location. Add a description and image. -Use Google Earth to explore the Ring of Fire. 	<ul style="list-style-type: none"> -Use Google Earth to trace the pathway of explorers. -Create a placemark for two important Westward Expansion locations. Add a description and image for each. -Use Google Earth to explore the ocean.

Common Applications	3	4	5
iPhoto - iPods and iPads	<ul style="list-style-type: none"> -Edit photos including cropping and rotation. -Use the original and cropped versions of a photo to create an image that can be used to promote discussion and writing about perspective (e.g., flower and parts of flower.) -Use the card feature in iPhoto to create Mother's Day cards. 	<ul style="list-style-type: none"> -Create a book in iPhoto to make book reports with relevant facts and captions. -Make a calendar to record phases of the moon to enhance moon journals. 	<ul style="list-style-type: none"> -Create a book or slide show about on the grade level scientists and their field of study.
Photo Booth - iPads	<ul style="list-style-type: none"> -Working in small groups, students will draw pictures of a story, take snapshots of the pictures using Photo Booth, use a word processor to sequence the story, than narrate it using Photo Booth movie features. 	<ul style="list-style-type: none"> -Create a classroom "dictionary" where students take pictures representing a specific word and use a word processor to create definitions for themselves along with their pictures. -When teaching action verbs, have students take pictures of themselves actually doing an action verb, and use a word processor to illustrate the verb. 	<ul style="list-style-type: none"> -Write moon poems and then narrate the stories using Photo Booth's Moon backdrop to record their stories with the movie feature.

Common Application	6	7	8
<p>Word Processing Google Docs</p>	<ul style="list-style-type: none"> -Write a five-paragraph essay using details to support the main idea. -Create a narrative with an added illustration. -Write an explanation, inserting a graph for supporting evidence. 	<ul style="list-style-type: none"> -Write a six-paragraph essay using details to support the main idea. -Write an explanation, inserting a graph for supporting evidence. -Create a poetry book with illustrations. -Interview a parent or other adult and include an imported picture of that person. 	<ul style="list-style-type: none"> -Peers edit papers using the features of the Reviewing Toolbar(i.e. "Markup", "Comments", and "Track Changes".) -Create a chart showing the steps meiosis and write an explanation based on the chart. -Write a story and include a picture used as a watermark. -Publish poetry anthologies of original art, and original photos to illustrate. -Write a research paper including a graph or chart, pictures, a bulleted list, and citations
<p>Presentation Tools Slide Rocket, Google Docs, Prezi</p>	<ul style="list-style-type: none"> -Build a presentation on an Interior ecosystem that describes producers, consumers, and food chains. -Incorporate own digital pictures, copyright free sounds, and clips. -Students will cite sources using Noodletools or similar site. 	<ul style="list-style-type: none"> -Build a presentation that compares text and video versions of a book. -Incorporate appropriate video clips, narrations, and digital pictures, and follow copyright law. -Students will cite sources. 	<ul style="list-style-type: none"> -Build a presentation that shows examples of media biases. -Incorporate appropriate video clips, narrations, hyperlinks, digital images, etc. -All copyright laws will be followed. -Students will cite sources.

<p>Spreadsheets (Excel, Google Docs, or other spreadsheets)</p>	<p>-Using test scores, such as spelling tests, graph the data from the previous quarter using three different types of graphs. Describe in writing which graph is best and why.</p> <p>-Write simple formulas for adding average columns.</p>	<p>-Use real time data such as temperatures in the local area to create graphs and predict trends and patterns.</p> <p>-Create a three-sheet workbook. Each worksheet will represent a separate country. Census data will be used to show income from various exports or population rates over 10 years. A graph will be included on each worksheet.</p> <p>-Students will write simple formulas for adding and averaging columns.</p>	<p>-Create a five-sheet workbook showing the mean and sum of casualties from various battles in the following wars: Revolutionary, Civil, WWI, WWII. Each war will be a separate worksheet. The fifth sheet will have total and averages linked to the four previous worksheets. Create a graph for each worksheet.</p>
<p>Digital Camera</p>	<p>-Use a digital camera to document a sequence of events such as an experiment.</p> <p>-Interview a parent or other adult and include and imported picture of that person.</p>	<p>-Use multiple technology tools to create a published piece of work and prepare it for a contest(e.g., the ASTE.ORG iDidaPhoto)</p>	<p>-Create a Living History of a local person and include several pictures.</p> <p>-Use multiple technology tools to create a published piece of work.</p>
<p>iPad</p>	<p>-Use pictures with captions to develop a conversation between several historical characters displaying an understanding of an event from an ancient civilization.</p> <p>-Use pictures with captions to identify and describe the characteristics of vertebrates.</p> <p>-Explain a mathematical concept with drawing and written details.</p>	<p>-Use pictures with captions to develop a graphic book with demographic information (population, geographic features, important historical events, natural resources, industry etc.) about a foreign country.</p> <p>- Use pictures and captions to write a sequence of steps for a task (e.g. how to change a tire, how to build a rocket, how to find a</p>	<p>- Use pictures with captions to develop a graphic book about significant events in a decade of United States history.</p> <p>-Create an original graphic short story for publication.</p>

		waypoint using GPS.)	
Garage Band Ipad	<p>-Work individually or in pairs, create a podcast using GarageBand to reenact an important even from the studies of Ancient Civilizations of the world.</p> <p>-Create public service announcement and prepare it for a contest (e.g. the ASTE.ORG iDidaPodcast.)</p>	<p>-Create a group public service announcement using GarageBAnd and incorporate several tracks for music and voice.</p> <p>-Create a podcast incororateing original narration, poetry, and music to define and provide examples of literary devices.</p> <p>-Create, record, and prepare an original piece of music for a contest (e.g., the ASTE.ORG iDidaTunes.)</p>	<p>-Working individually or in pairs, create an enhanced podcast using GarageBAnd to demonstrate an understanding of an era of United States history between the years of 1763-1945.</p> <p>-Working individually, create an enhanced podcast reviewing a book that the student has read.</p>
Google Earth	<p>-Use Google Ancient Rome for studying and researching Ancient Rome.</p> <p>-Utilize Google Mars for study of Mars surface.</p> <p>-Create a Google Lit Trip with five placemarks for a book being read for class. Add a description and image for each.</p>	<p>-Learn to use longitude and latitude in Google Earth.</p> <p>-Use Google Earth to locate areas of current events for research or discussion.</p> <p>-Create Google trip covering aspects of location, place, human and environmental interaction, movement, and region issues for the different continents.</p> <p>-Use Google EArth as a presentation tool.</p> <p>-Explore different geological aspects of earth using Google Earth.</p>	<p>-Use Google EArth to locate areas of current events for research or discussion.</p> <p>-Create a Google trip with placemarks showing the capitals and seven other important locations for a state. Include a description, with a picture or video for each.</p> <p>-Overlay historical maps and create placemarks to siscuss how events unfolded during a given time period of U.S. History.</p> <p>-Create hyperlinks for references.</p> <p>-Use some basic formatting tools like Bold, <u>Underline</u>, and <i>Italics</i>.</p>

iMovie iPad	<p>-Create a movie with a combination of still and video images which includes titles, sound bites, and music shorts.</p> <p>-Create an iMovie trailer to promote a book.</p>	<p>-Create reports using multiple iMovie effects. For example, students will create a public service announcement.</p> <p>-Create a video dictionary for vocabulary words that will be used throughout the year.</p>	<p>-Create reports using advanced iMovie setting to enhance multimedia reports using still images, voice over, transitions, titles, sound bites, Ken Burns animation, music, loops, and special effects.</p>
iPhoto iPods/iPads	<p>-Download copyright free pictures to iPhoto, modify photos, and use these pictures to support written work such as Word documents or PowerPoint presentations.</p> <p>Find and add location information to photos to create a clickable map.</p>	<p>-Create a presentation about a country. Save the presentation in jpg format. Import it into iPhoto and create slideshow with copyright free music from that country.</p>	<p>-Create a "team" yearbook with statistics about the team such as favorite food, favorite book, and favorite movie.</p>
Photo Booth iPods/iPads	<p>-Use one of the special effects backdrops to narrate and act out a story to create a multimedia report with Photo Booth's movie feature.</p>	<p>-Use 30 second movie clips from Discovery videos to enhance a report using the movie as a backdrop.</p>	<p>-Use 30 second movie clips from Discovery videos to construct own narratives about an assigned topic and voice over the original Discovery clip.</p>
<p>Kerpoof</p> <p>Note: For all Kerpoof lessons refer to lesson plans at http://www.kerpoof.com/teach?c=less</p>	<p>-Create "A Fairy Tale with a Twist" by reading the original <i>Three Little Pigs</i> followed by <i>The True Story of the Three Little Pigs</i>. Using this model, students create their own twisted fairy tales using the</p>	NA	-NA

on_plans	Make a Story section of Kerpoof. (use “Fairy Tales with a Twist” lesson plan.)		
VoiceThread	-Use VoiceThread as a tool to narrate a timeline for a biography of a famous person.	-Explain parts of a cells. Students will invite each other to comment on their VoiceThread.	-Write individual steps to a problem and verbally explain how the problem was solved.
iPod Touches (Names of iPod Apps are in italics.)	-Use <i>Countries</i> to gather information about different countries to compare and contrast information between them.	-Use <i>Google Earht</i> to locate a region that has been studied and take a screenshot of the location. Ue <i>Comic Touch</i> to import the picture and write a description about the region (history, econimics, science etc.)	-Use <i>Planets</i> to explore the following: location, visibility, rise and set times of the moon and planets; location of constellations, current and future phases of the moon; 3D Globe View of moon and planets; fact sheets for moon and planets.
SmartBoard	-Create map key for a map of the world using SMART Board Gallery of maps, flags, and landmarks.	-Learn to develop peer assessment activities using the multimedia resources for the Essentials for Educators folder.	-Continue to learn to develop peer assessment activities using the multimedia resources for the Essentials for Educators folder.

Technology Curriculum

Preparing Students with the Technology Tools for Learning, Communication, and Productivity

*Suggested Curricular Activities: Grades 9-12

Common Applications	Fine Arts
Word Processing (Word or other document creation tools)	-Create a book report, brochure, essay, flipbook, or flyer. Use appropriate styles, headings, graphic elements, layout, and templates to enhance the visual appeal of the publication. Examples: * Art History *Self-reflective critique notes *Journaling
Presentation Tools (PowerPoint or other digital presentation tools)	-Create digital projects using media tools like transitions, animation, fonts, and graphics to enhance presentations. Examples: *Relating artists, art movements, personal work, and creative processes.
Spreadsheets (Excel, Google, or other spreadsheet tools)	- Create a spreadsheet to track art material and their cost.
Digital Camera	-Create digital images as standalone pieces of art. -Document 2D and 3D artwork for digital portfolios. Examples: 1. Zulu link 2. Art Miles Mural 3. Artsonia 4. VoiceThread
Comic Life	-Create original comic artwork using existing digital imagery.
Audio Creation Software	-Create an enhanced podcast of your portfolio. Include a commentary about your artwork.

(GarageBand and Audacity)	
Google Earth	<ul style="list-style-type: none"> -Use Google Earth layers to look at ancient Greece and Rome to discuss architecture. -Use Google Earth art blogs to generate inspiration for developing works of art. -Use Google Earth layers to investigate aerial perspective. -Create placemarks to develop an understanding of regionalism pertaining to art and art history
Video Creation Software (iMovie, MovieMaker, VoiceThread, etc)	<ul style="list-style-type: none"> -Document a creative process and/or a “how to” film. -Narrate projects, portfolios and/or process.
iPhoto	<ul style="list-style-type: none"> -Edit and enhance images.
PhotoBooth	<ul style="list-style-type: none"> -use to take reference pictures for self portraits. -Explore Pop Art through filter experimentation.
Photoshop	<ul style="list-style-type: none"> -Edit, trim, and enhance photos. -Create original artwork.
Page Plus	<ul style="list-style-type: none"> -Create original artwork -Explore commercial art applications through logo design and print-based media -Create page layout for “Zines” -Create page layout for yearbook -Create web based media, including simple animation

Technology Curriculum

Preparing Students with the Technology Tools for Learning, Communication, and Productivity

*Suggested Curricular Activities: Grades 9-12

Common Applications	Language Arts
<p>Word Processing (Word, Google Docs, or other document creation tools)</p>	<p>-Create media-rich documents to show comprehension, interpretation, evaluation, and appreciation of novels or stories. Creatively apply layout, images, styles, headings, and fonts to enhance visual appeal.</p> <ol style="list-style-type: none"> 1. Compose a poem. 2. Create a book report, brochure, flip book, or script. 3. Compose letters using appropriate templates (e.g. letter to an author or literary agent, persuasion letter to a publisher.) 4. Write a script of a scene in a novel or play in a different style (e.g. write a scene in Shakespeare in modern English or “teen speak”.) Use collaborative document sharing to have group members write and rehearse different parts using different colors. <p>-Demonstrate knowledge of word meaning using the tools in word processing by developing word identification strategies, and refine the understanding of textual features like sentence structure and spelling with the aid of word processing tools like a dictionary or thesaurus.</p> <ol style="list-style-type: none"> 1. Write a glossary of terms 2. Create word tables or charts of synonyms, antonyms, roots, prefixes, suffixes, or other information that build word meanings. 3. Make a set of concentration cards to create a game of terms and definitions. <p>-Create an original research paper on a topic.</p> <ol style="list-style-type: none"> 1. Use the reviewing tools to track changes and draft. 2. Share and use commenting for peer and teacher review. 3. Use tools to revise language, cite references, and perform word counts. 4. Apply heading styles, and insert document elements such as table of contents, footnotes, and bibliography.

<p>Presentation Tools (SlideRocket, Prezi, Google Docs, PowerPoint, or other digital presentation tools)</p>	<p>-Create digital projects using media tools like transitions, animations, fonts, and graphics to enhance presentations that support learning and convey a point of view, while effectively employing the concepts of design, repetition, space, and color.</p> <ol style="list-style-type: none"> 1. Design a travel brochure using references from parts of the story to support ideas in writing. 2. Create a dossier on a character in a novel or story; pretend you are a foreign spy sent to report back to your team leader. 3. Write a front page news story for a US newspaper or lead story for a foreign newspaper about a novel or story. 4. Create a presentation that helps bring a character in a novel or story to life and helps others understand the social demands and personal fulfillment of the character. Use passages from the text to support your interpretation of the character's traits. 5. Create a presentation that aids other in understanding how setting affects the development, actions, or outcome of a novel or a short story. 6. Create a presentation that aids in understanding the era or social pressures of the times and how social conditions affect the outcome of the story or motivated the author. 7. Employ and create effective presentations using media tools to enhance the project on a given topic. Examples: <ul style="list-style-type: none"> ● Career ● Persuasion ● Societal Issues <p>- Develop a presentation that compares versions of the same story or other points of view, use media tools to support the text.</p> <p>-Develop a presentation in the form of a poem that demonstrates comprehension or expresses new points of view using design elements to support the text.</p> <p>-Create a Jeopardy game of terms and definitions, context clues, or word origins. Use word processing tools like the dictionary or thesaurus to incorporate images if needed.</p>
<p>Spreadsheets (Excel, Google, or other spreadsheet tools)</p>	<p>-Develop spreadsheets, calendars, and timelines to demonstrate an understanding for the places, cultures, time periods, philosophies, ethical issues, artistic styles and/or genres in literature.</p> <ol style="list-style-type: none"> 1. Create a calendar of events to show time lapses within a novel or story. 2. Create a timeline with text boxes to include the following information <ul style="list-style-type: none"> ● -Dates different novels or short stories written ● -Author's motivations ● -Social pressures that influenced the style

	<p>-Compile story reviews; transfer the pros and cons of the reviews to a spreadsheet to determine the strength or weakness of a novel.</p> <p>-Compile sales data on a novel; determine the historical and current popularity based on sales. Determine if the novel will continue to be relevant to society in the future based no sales projections.</p>
<p>Digital Images (Photoshop, Publisher, InDesign, free online software)</p>	<p>-Use images to effectively communicate, support or reinforce a point of view, enhance understanding, or convey meaning.</p> <ol style="list-style-type: none"> 1. *Create a book jacket using images to enhance the title: 2. *Inside the jacket flap add a novel or story summary 3. *On the back of the jacket include a personal book review with a passage from the text to support our view and a quote of a well-known book reviewer explaining why you support their point of view. <p>-Create a novel or short story announcement including:</p> <ol style="list-style-type: none"> 1. *Dates of events 2. *Characters 3. *Tension or rivalry within the text 4. *Sales pitch; if possible use a short phrase from the text and compelling statements <p>-Create a glossary of terms pairing nouns with images to enhance their meanings.</p> <p>-Create a concentration game of terms and definitions using images and text.</p> <p>-Using iPhoto, write and design a book.</p>
<p>Audio Creation Software (GarageBand and Audacity)</p>	<p>-Create an enhanced video and/or audio podcast about a piece of literature.</p> <p>-Create an enhanced video and/or audio podcast for a piece of original poetry.</p> <p>-Create an enhanced video and/or audio podcast for a legend or myth.</p> <p>-Create one minute radio advertisements for a novel or a story.</p> <p>-Convert a novel or a story into a radio drama series podcast.</p>
<p>GIS Tools (Google Earth, Maps, GPS, etc.)</p>	<p>-Create virtual tours in Google Earth using placemarks to demonstrate insight about the historical time periods or geographic regions in the literature's setting.</p> <ol style="list-style-type: none"> 1. *Create placemarks using pictures and text to describe the settings and events in a piece of literature.

	<p>2. *Use map overlays (e.g. Ancient Greece for the <i>Iliad</i> and <i>Odyssey</i>) for places discussed in literature.</p>
<p>Video Creation Software (iMovie, MovieMaker, etc.)</p>	<p>-Develop a digital media project that incorporates sound, music, voice overs, images, and video to appropriately communicate with different audiences for a variety of purposes.</p> <ol style="list-style-type: none"> 1. Create an infomercial for a local charity, group or event. 2. Convert a novel or a story into a T.V. sitcom or drama series. Create a movie trailer or commercial about a novel. 3. Interview a character in the novel or the author. 4. Create a cooking show based on a novel; bring out character traits while demonstrating how to make a dish from the era. 5. Create a spy movie that exposes the character's fault with a classic villain and hero; to add interest you may want to switch the roles making the villain the hero in the novel.
<p>Online Study Guides</p>	<p>-Create flash cards with online resources (e.g. Quizlet, Quia, Scholastic.com) that include pictures from Flickr and/or creative common database to aid in vocabulary or concept development.</p>
<p>Video Conferencing</p>	<p>-Use video conferencing (e.g. Skype, Facetime, Elluminate Live) to interview an author or discuss a piece of literature with students in other locations.</p>
<p>iPod and iPad Apps</p>	<p>-Use the audio, camera, and recording features to conduct author interviews.</p> <p>-Use the audio features to access audio books.</p> <p>-Use the record, text-to-speech, and speech-to-text features to interview others, record lessons or class lectures.</p> <p>-Create documents and multimedia projects using available apps (e.g. Pages, Keynote, Google Docs. etc.)</p> <p>-Use available apps to practice and improve grammar and vocabulary.</p>

Technology Curriculum

Preparing Students with the Technology Tools for Learning, Communication, and Productivity

*Suggested Curricular Activities: Grades 9-12

Common Applications	Math
<p>Word Processing (Word, Google Docs or other document creating tools)</p>	<p>-Create a brochure on a given topic explaining and using pictures, graphs, equation editor.</p> <p>-Create a collaborative dictionary that students will share amongst students.</p> <p>-Create a collaborative notebook where students can show different ways to solve problems with written explanations. Focus on using appropriate vocabulary, symbols, or technology to explain, justify, and defend strategies and solutions.</p>
<p>Presentation Tools (PowerPoint, SlideRocket, Prezi, Google Docs or other digital presentation tools)</p>	<p>-Create a presentation on a given math topic showing how the concept is used in everyday life. Focus on using appropriate vocabulary, symbols, or technology to explain, justify, and defend strategies and solutions. Include the following:</p> <ol style="list-style-type: none"> 1. Jobs that use concepts 2. Why it is useful 3. Pictures or movies about the concepts in use 4. Problem being worked out in detail 5. Question and Answer session
<p>Spreadsheet (Excel, Google Docs, or other spreadsheet tools)</p>	<p>-Use spreadsheet to teach basic programming, mathematics, and problem solving. Write formulas in a spreadsheet for estimating or converting measurements between the English and metric system in real-world applications, given a conversion factor (e.g., miles/kilometers)</p> <p>-Use a spreadsheet to generate arithmetic and geometric sequences.</p> <p>-Analyze measures of central tendency (e.g. mean, median, mode) for real-world data sets. Use spreadsheet</p>

	<p>functions to perform calculations. Student should analyze and draw meaning from the relationships to present an explanation supported by the data</p> <ol style="list-style-type: none"> 1. Compare prices for consumer goods 2. Analyze population demographics 3. Examine survey results <p>-Set up a spreadsheet to perform complex and repetitive calculations. Use spreadsheet columns to enter values for variables. Represent algebraic or geometric relationships using spreadsheet formulas and functions. Perform manual or calculator computations to verify that the spreadsheet is correctly configured</p> <p>-Create animated graphs to display changes in data over time.</p> <p>-Create a table with independent and dependent variables. Generate scatter plots with trend lines that display linear and nonlinear relationships.</p> <p>-Graphically analyze energy consumption based on electronic devices, lights, and appliances and list ways to save money,</p> <ol style="list-style-type: none"> 1. Create graphs of sunrise, sunset, and day-length data at different latitudes. <p>-Analyze data by creating pivot tables.</p>
Digital Camera	<p>-Take photos of “real-world” geometric shapes and explain how multiple geometric concepts are applied in that shape. Example:</p> <ol style="list-style-type: none"> 1. Stop sign: Regular Polygon, Interior and Exterior Sum of Angles, Perimeter, Area <p>-Capture pictures of objects and record their dimensions. Calculate surface areas and volumes.</p> <p>-Capture images of natural or architectural shapes (e.g. Conic section, spirals, curves) that can be modeled with formulas. Overlay diagrams fo the shapes and write the formulas that represent the shapes.</p>
iPads	<p>-Create Comic Life panel(s) to break down complex ideas, create entertaining content, illustrate concepts, compare/contrast concepts, present an argument, represent or express interpretations, show cause and effect, or demonstrate processes. Examples:</p> <ol style="list-style-type: none"> 1. Geometric theorem 2. Algebraic equation 3. Explain pivot tables 4. Order of Operations (PEMDAS) 5. Relationship between slope, the y intercept, and graphing equation

<p>Audio Creation Software</p>	<p>-Create a rap or song about a math concept</p> <ol style="list-style-type: none"> 1. Geometric theorem 2. Algebraic equation 3. Order of Operations (PEMDAS) 4. Square roots <p>-Record an audio assessment explaining steps to solve a problem or perform an operation.</p>
<p>Google Earth</p>	<p>-Use Google Earth in classroom to cover math concepts. Examples:</p> <ol style="list-style-type: none"> 1. RealWorldMath.org- How to use Google Earth to cover math concepts 2. Spherical Geometry 3. Ski Slopes- Find the slope of a ski mountain by having a student find the distance skied and elevation change 4. Point of Concurrency in a Triangle in a real work context (yes...the Earth is not flat) 5. Find the distance between two cities using trigonometry along with latitude and longitude
<p>Video Creation Software (iMovie, MovieMaker)</p>	<p>-Create a movie explaining a concept from their math class using iMovie pictures, video, and /or PowerPoint slides</p> <ol style="list-style-type: none"> 1. Record a rocket launch and explain the mathematics behind the path of the rocket
<p>Graphing Calculators</p>	<p>*Graph various polynomial functions and look for patterns that develop based on:</p> <ol style="list-style-type: none"> 1. Odd and even functions 2. Recognizing shapes of curves 3. Finding the Max(s) and Min(s) 4. Sorting in multiple ways based on different patterns that you see <p>-Use matrices to solve system of linear equations.</p> <p>-Solve a system of equations graphically.</p> <p>-Find the line of best fit for a given set of data and use the line to make predictions,</p> <p>-Program the calculator to find volume by entering length, width, and height.</p>
<p>Math Modeling Software (Sketchpad, Google Sketchup, etc.)</p>	<p>Geometers Sketch Pad</p> <p>-Construct algebraic and geometric concepts to explore. Example:</p> <ol style="list-style-type: none"> 1. Construct two parallel lines and a transversal in order to explore the relationship of angles. 2. Graph linear equations; have students adjust the slope or the intercept to see how each one changes the

	<p>graph.</p> <ol style="list-style-type: none"> 3. Explore the relationship between rectangles, triangles, parallelograms, and trapezoids. <p>-Import pictures to explore algebraic and geometric concepts. Example:</p> <ol style="list-style-type: none"> 1. Write equations for linear, quadratic, and various other functions of lines that can be found in an image like a bridge cable or building structures. 2. Area, perimeter, surface area, or volume. <p>-Visit SketchPad Sketch Exchange to find pre-made lessons and templates created by other teachers.</p> <p>Google SketchUp</p> <p>-Create geometric shapes and measure them to find area and perimeter. Examples:</p> <ol style="list-style-type: none"> 1. Triangle 2. Rectangle 3. Regular Polygons 4. Circles 5. Cubes <p>-Construct tessellating patterns</p> <p>-Import objects that exist in real life from the sketchup repository and find the area, perimeter, surface area, and volume of the item.</p> <ol style="list-style-type: none"> 1. Pyramids in Egypt 2. Great Wall of China 3. Swimming Pool(only the deep end with constant depth) <p>-Create house blueprints and calculate building costs. Include cost of lumber, calculate needed number of gallons of paint, types of flooring and the cost to install, etc.</p> <p>-Create a new of a 3-dimensional shape</p>
Blogs	<p>Subscribe to award winning math blogs to generate new ideas on teaching math concepts:</p> <p>-Dy/Dan- Gives great examples of ways to improve teaching of math concepts</p> <p>Examples of student projects:</p> <ol style="list-style-type: none"> 1. Linear Regression- Toasters and Toasters Cont'd 2. Problem Solving- ELI 3. Problem Solving and Traffic Tickets- Yellow Lights

	<p>-Teaching College Math Examples of student projects</p> <ol style="list-style-type: none"> 1. Calculus- Game Antiderivative Block 2. Sixty Symbols- College professors explain different symbols with history and uses of in the real world <p>-Mathematics and Multimedia Examples of student projects:</p> <ol style="list-style-type: none"> 1. Scientific Notation- Distance to Planets 2. Probability- To Win the Lottery
Podcast	<p>-Use podcasts to enhance and develop the curriculum from various sources such as iTunes U and TED</p> <ol style="list-style-type: none"> 1. Khan Academy- Explanations on a wide range of curriculum and standardized preparation material 2. Math in Nature and Art 3. Teaching Mathematics- Teachers explaining different strategies on how to teach a given topic 4. Mathematics- Thamin page of Mathematics at iTunes U. It can be further refined for Algebra, Statistics, Geometry, Calculus, and Advanced Math 5. Pre-Algebra- Set of videos explaining different concept of Pre-Algebra- Algebra 6. TED iTunes- Download High Def version you like <p>-TED has some wonderful podcasts on how math works in our everyday lives:</p> <ol style="list-style-type: none"> 1. TED- Numbers at Play- Ted talks on mathematical concepts 2. TED-Math Talks- Ted talks on mathematical concepts
Online Games Sites	<p>-Practice and reinforce skills using math related sites. Examples:</p> <ol style="list-style-type: none"> 1. Shodor- Java based web activities 2. Math Inter-Activities- Flash based activities and videos 3. Math Continuum- Flash based activities for Pre-Algebra 4. Calculation Nation- Flash based activities for Pre-Algebra and above
Support System for Students	<p>Wolfram -Wolfram Alpha</p> <p>-Wolfram Demonstrations- Inter-activities that allow you to explore a concept without having to redraw it over and over.</p> <ol style="list-style-type: none"> 1. Graphing Ordered Pairs 2. Distance Formula

	<p>3. Quadratic Formula</p> <p>-Wolfram Algebra Course Assisstant</p> <p>Hippocampus -Online tutorials for students in Algebra 1, Algebra 2, and calculus</p> <p>Wolfram Algebra Course Assisstant -Shows steps to calculate problems</p> <p>-Evaluates a formula</p> <p>-Creates a table of values</p>
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Technology Curriculum
Preparing Students with the Technology Tools for Learning, Communication, and Productivity
***Suggested Curricular Activities: Grades 9-12**

Common Application	PE/Health
Word Processing (Word, Google Docs, or other document creation tools)	<p>-Create a book report, brochure, flipbook, script, or flyer, Use appropriate styles, headings, graphic elements, layout, and templates to enhance the visual appeal of the publication. Examples:</p> <ol style="list-style-type: none"> 1. Volleyball 2. Floor Hockey 3. Walking, Jogging, Running 4. Seasonal Affective Disorder(SAD)
Presentation Tools (PowerPoint, SlideRocket, Prezi, Google Docs, or other digital presentation tools)	<p>-Create digital projects using media tools like transitions, animations, fonts,and graphics to enhance presentations. Examples:</p> <ol style="list-style-type: none"> 1. Drugs 2. Mental Disorders 3. Healthy Relationships

	4. Eating Disorders
Spreadsheets (Excel, Google Docs, or other spreadsheet tools)	<ul style="list-style-type: none"> -Track and record weight lifting progress over the semester. -Graph and analyze the caloric and fat content of items eaten from fast food restaurants. Find healthier choice alternatives and explain why they are better choices. Calculate how many minutes it would take to burn the calories from those meals engaging in different physical activities.
Comic Life	<ul style="list-style-type: none"> -Create flyer about the benefits of sports -Create a flyer about disease
Audio Creation Software (GarageBand, Audacity, Myna etc)	<ul style="list-style-type: none"> -Create a PSA on a health topic
Google Earth and GPS	<ul style="list-style-type: none"> -Use GPS units to record their path of travel during a class period. Download the data and import it into Google Earth. View how the path looks over satellite imagery and write about the interesting aspects of each checkpoint. -Use GPS units to find geocaches. Geocaches can either be created or you could have students visit local geocaches that other people have made(which can be found by doing a search on your favorite browser)
Video Creation Software (iMovie, MovieMaker)	<ul style="list-style-type: none"> -Create a PSA on a health topic. -Create and infomercial for a disease.

Technology Curriculum

Preparing Students with the Technology Tools for Learning, Communication, and Productivity

*Suggested Curricular Activities: Grades 9-12

Common Applications	Science
<p>Word Processing (Word, Google Docs, or other document creation tools)</p>	<p>-Write a scientific investigative report that features graphs or charts, images, a bulleted list, and citations.</p> <p>-Write a research paper about a scientist's historical context and how it differs today. Consider using collaborative writing with Google Docs(e.g., Galileo, Newton, Bohr, Einstein.)</p> <p>-Write a formal lab report that features hyperlinked table of contents, headings for each section(purpose or questions investigated, hypotheses, materials, and experimental procedures, data and observation, and conclusions), list of materials, photos or drawings to illustrate procedures and observations, tables and charts of data collected. Consider using collaborative writing by lab partners with Google Docs.</p> <p>-Collaborate with other students using Google Docs or other online collaborative word processing applications to create documents that feature hyperlinked table of contents, images, tables, charts, or graphs, citations, multiple layouts(one column, two column), hyperlinks to websites, WordArt, and footnotes.</p> <ol style="list-style-type: none"> 1. Record group projects together in a single document. 2. Collaborate on a lab report or scientific project which includes a hypothesis, experimental design and sharing of data that supports or disproved their hypothesis. Include bullets, tables/graphs/charts, images, hyperlinks, multiple layouts, footnotes, and citations as appropriate. 3. Contribute to a class wiki or blog during a project or assignment or to share research findings.
<p>Presentation Tools (PowerPoint, SlideRocket, Prezi, Google Docs, or other digital presentation tools)</p>	<p>-Develop a digital presentation to communicate results of an original scientific investigation.</p> <p>-Include summaries of questions investigated, hypotheses, materials and experimental procedures data and observations, and conclusions. Incorporate appropriate video clips, narration, and digital pictures. Add hyperlinks, charts and graphs. Respect creative works and cite sources.</p>

	<p>-Create a collaborative class presentation to present to content knowledge. Each student or group contributes several slides with appropriate graphics and text about some aspect of the topic. Combine the slides to create a class presentation on the topic, and share with the whole class.</p>
<p>Spreadsheets (Excel, Google Docs, or other spreadsheet tools)</p>	<p>-Organize data from an experiment in a spreadsheet. Analyze data using appropriate formulas and charts to represent data.</p> <p>-Use a collaborative shared spreadsheet to compile class experimental data.</p> <p>-Use spreadsheet formulas to calculate averages and standard deviations on sets of experimental values.</p> <p>-Explore using trend-lines in charts to find correlations of experimental data.</p> <p>-Use statistical functions and formulas to analyze data.</p> <p>-Use charting features to create scatter plots, line graphs bar graphs, or other formats to generate meaningful visualizations of data or observations. Create appropriate titles, labels of axes.</p> <p>-Create quizzes, tests, and surveys using shared spreadsheet forms.</p>
<p>Digital Images</p>	<p>-Incorporate pictures of learning activities to generate interest and reinforce learning.</p> <p>- Take a series of photos of stages in the life cycle of an organism. Create flash cards that challenge students to put the shots in order.</p> <p>-Create assessment items that incorporate photos of equipment, measurement instruments, lab procedures, specimens, or experimental phenomena.</p> <p>-Utilize images of local scenes, classroom activities, or field trips to add another dimension to journal writing activity.</p> <p>-Capture and edit images of natural phenomena or environments. Consider publishing exemplary works, or entering them in contests. (e.g, the ASTE.ORG iDidaPhoto)</p> <p>-Create virtual collections of field trips with digital images. Consider incorporating student images into a collaborative presentation such as a VoiceThread.</p> <ol style="list-style-type: none"> 1. Create Collections of weather and atmospheric phenomena (e.g., cloud types, sundogs, halos, rainbows.)

	<ol style="list-style-type: none"> 2. Create natural history collections of local specimens(e.g., wildlife, insects, wildflowers, trees and shrubs, pollens.) 3. Develop a field trip of geologic features, soils, or landforms. <p>-Organize photo by events, projects, or experiments.</p> <ol style="list-style-type: none"> 1. Share images through a slide-show, print to a book, or through an online photo gallery. 2. Create vocabulary review for topics in science using digital images. <p>-Create an interactive poster about a specific event in history, scientist, or science concepts.</p> <p>-Use Photo Booth to take time-lapse photos of an experiment.</p>
Comic Life	<p>-Create a cartoon or graphic novel with titles, panels images, callouts, and text to convey understanding of historical figures or events. Apply color, styles, fonts, and page layouts to creatively convey emphasis and meaning.</p> <ol style="list-style-type: none"> 1. Illustrate basic scientific concepts 2. Create a simple explanation of a complex scientific concept. 3. Compare and contrast alternative theories 4. Present opposing viewpoints on a controversial issue. <p>-Show cause and effect, or demonstrate processes.</p>
Audio Creation Software (GarageBand, Audacity, Myna etc)	<p>-Create a video and/or audio podcast to present a project, issue, or concept that students have researched and feel strongly about.</p> <p>-Use audio recording and editing software to create a publish podcasts on science topics or concepts. Consider publishing exemplary works online (e.g., Podbean site or iTunes U) or entering them in a contest (e.g., the ASTE.ORG iDida Podcast.)</p> <p>-Record audio mini lessons or lectures and produce them and a podcast series. Publish on the class website, blog, or wiki. Involve students in creating the lessons to share.</p> <p>-Create an audio class newsletter as a podcast series. Parents can access the news from a class webpage or subscribe to a podcast.</p>
Google Earth, GIS, and GPS	<p>-Create virtual tour placemarks of landforms or geological phenomena by creating placemarks in Google Earth.</p> <p>-Use real-time Google Earth data overlays such as earthquake data, volcanic activity, and plate boundaries to</p>

	<p>explore patterns related to plate tectonics.</p> <ul style="list-style-type: none"> -Visualize climatic patterns with animated overlays. -Create placemarks linked to data or observations collected in field studies. -Use Google Sky or Google Mars to explore astronomical features and imagery. -View the location of a field trip in Google Earth before actually visiting. -Use Google Earth for an environmental river project. <ol style="list-style-type: none"> 1. Locate the origin of a river and then follow it to the mouth, entering the sea or lake. 2. Use the altitude information on Google to calculate the difference in altitude between the origin and the mouth. 3. Mark all geographical spots of interest (canyons, confluences, dams and weirs, cascades and waterfalls.) 4. Use the grid reference (GPS coordinates) and the altitude information on Google to refer to these points of interest on the map. 5. Zoom in along the banks and make notes of the various field types along the length of the river- do various field types (grassland, ploughed fields, forests, etc.) have an influence on the river? (e.g., siltation, river course changing, eutrophication, etc.) 6. Determine which towns and cities lie next or near to the river and have an influence regarding water extraction for household and industrial pollution. -Scan a contour map of an area, preferably mountainous. <ol style="list-style-type: none"> 1. Navigate to the area on Google Earth. 2. Use the tools/image overlay option to insert the contour map over the area. 3. Use the transparency slider, then overlay the map into the right area. 4. Show students what different landforms look like on a contour map. -View floodplains in your area using data from FEMA. -Create Google Earth tours (.KMZ files) that can be shared in class showing earthquake fault lines in your area, or more famous ones like the San Andreas Fault.
<p>Video Creation Software (iMovie MovieMaker)</p>	<ul style="list-style-type: none"> -Create and present a video project about a local or global issue or concept students have researched. Students can expand on their ideas using writing, drawing, pictures, video, and audio tools. -Capture video of moving objects and analyze motion such as trajectories, velocity and acceleration.

	<p>-Conduct and compile video interviews of scientists, engineers, or other resource people about scientific issues or phenomena.</p> <p>-Make and edit video of natural phenomena or environments. Consider publishing exemplary works or entering them in contests (e.g., the ASTE.ORG iDidaPhoto)</p> <p>-Make a digital visual representation of a specific science concept. It also is a means to discover students' misconceptions related to the concept.</p> <ol style="list-style-type: none"> 1. Create a video to analyze motion of a roller coaster. 2. Document a science experiment, including hypotheses tested, procedures followed, observations, and conclusions. <p>-Record artifact related to a project-based learning activity such as interviews with experts and data collection techniques. Use video cameras, flip cameras, document cameras, iPod Touches, or cell phone cameras to capture the video.</p> <ol style="list-style-type: none"> 1. Students record their modeling of the composition of the earth's atmosphere project. 2. Record observations of events or phenomena related to specific concepts taught in class. 3. Slow the video down using QuickTime Player to provide the ability to analyze and demonstrate facts related to the concept being presented. <p>-Set up a remote camera to document and record weather phenomena, or wildlife behavior.</p> <ol style="list-style-type: none"> 1. Capture time-lapse images of cloud formation or storm activity. 2. Record nesting or den activity of birds or mammals.
<p>Document Camera with Avervision</p>	<p>-Use the Avervision software and document camera to capture and annotate images or to record video of a demonstration or experimental procedure.</p> <p>-Incorporate the images or video captured from the document camera in a presentation, lab report, lesson, or assessment.</p> <p>-Use the microscope adapter with a document camera and Avervision software to record observations of microscopic specimens or phenomena.</p>
<p>Sensors and Probeware</p>	<p>-Conduct hands-on science and experiments in the classroom and field using digital sensors, probes, and data loggers.</p> <ol style="list-style-type: none"> 1. Use motion sensors to conduct experiments involving velocity and acceleration. Have students attempt to

	<p>match position vs. time and speed vs. time graphs.</p> <ol style="list-style-type: none"> 2. Collect and graph environmental data to answer questions about water quality or to monitor variables such as light intensity, pH, or temperature while conducting controlled experiments. 3. Measure the CO₂ or O₂ produced or consumed by an organism, or the effect of light wavelength on photosynthesis. 4. Measure and graph temperature changes during phase changes.
VoiceThread	<p>-Use VoiceThreads created by both teacher and other students which are embedded in a class wiki or blog for use to review concepts for a test, or to deliver content to students who missed a class presentation.</p> <p>-Create a debate about a controversial scientific topic or bioethical issue. Students contribute key argument points using one slide for pro and another for a con position.</p> <p>-Share comments, ideas, or suggestions related to a posted video related to a scientific concept or theory.</p> <p>-Create original diagrams, images, or charts to portray structures or processes. Use the “doodler” to draw arrows to point out features or changes.</p> <ol style="list-style-type: none"> 1. Identify anatomical features of different types of animals. 2. Diagram human body systems or physiological processes. 3. Demonstrate chemical or physical processes and have students comment. 4. Create a “Bad Science” show. Present common misconceptions about science concepts, and debunk them with demonstrations and correct explanations. <p>-Create a VoiceThread presentation to communicate findings in a science project. Every student must contribute to part of the presentation using their own voice for facts and comments.</p> <ol style="list-style-type: none"> 1. Provide examples of reflection and refraction along with explanations. 2. Provide examples of each type of biome found around the world. 3. Debate the issue of global warming using facts and data presented.
Skype (or other video conference tools)	<p>-Conduct an interview with a scientist, engineer, technician, or other resource expert at a remote location. Project the remote site on a classroom screen, and pose questions with a webcam and microphone.</p> <p>-Connect with a classroom at a school in a remote location to collaborate on simultaneous observations of natural phenomena or in collecting experimental data.</p>
iPod Touch	<p>-Use the camera or video-camera to collect, document and record observations or experimental results.</p> <p>-Use a video camera or voice recorder to record observations during and experiment, to demonstrate lab process</p>

	<p>skills, or to conduct audio interviews with resource experts.</p> <p>-Use apps that access the motion sensor/accelerometer to record motion and conduct experiments. Graph velocity, accelerations, and time using Excel.</p> <p>-Listen to podcasts on science content topics from iTunes U.</p>
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Technology Curriculum
Preparing Students with the Technology Tools for Learning, Communication, and Productivity
***Suggested Curricular Activities: Grades 9-12**

Common Applications	Social Studies
Word Processing (Word, Google Docs, or other document creation tools)	<p>-Create media-rich documents to demonstrate understanding of significant historical events. Incorporate maps, charts, tables, timelines, and images to effectively communicate the event's impact. Creatively apply layout, styles, heading and fonts to enhance visual appeal.</p> <ol style="list-style-type: none"> 1. Write a series of news articles describing an event from various perspective (e.g., the Iranian takeover of the American Embassy in 1979 as if you were an American newspaper, Iranian newspaper, Japanese newspaper, British newspaper.) 2. Create a tri-fold brochure about the place or the time period being studied. Fore example, create a brochure about China or about the Constitution. Include copyright free pictures, student drawn images, or student taken photos. 3. Create a series of Facebook entries for a historical figure in a word processing document.
Presentation Tools (PowerPoint, SlideRocket, Prezi, Google Docs, or other digital presentation tools)	<p>-Incorporate text, image, videos, charts, and maps into digital presentations to demonstrate and describe important causes and turning points in history. When available, include primary sources.</p> <ol style="list-style-type: none"> 1. World History: cultural progress, inventions, wars, leaders and/or epidemic. 2. US History: Westward Expansion, wars Federalism, Anti-Federalism and/or epidemics. 3. Alaska History: cultural impact, wars, laws, epidemic and/or leaders.
Spreadsheets (Excel, Google Docs, or other)	<p>-Create a spreadsheet displaying data from historical, economic, political, social, or cultural events. Analyze the data using appropriate charts.</p>

<p>spreadsheet tools)</p>	<ol style="list-style-type: none"> 1. Miles between stops on the Oregon Trail, Lewis and Clark Expedition, etc. 2. Casualties in battles of a war 3. Spread of epidemics 4. Death rates 5. Population growth 6. Average life span 7. Growth in use of automobiles or electronics <p>-Use a spreadsheet template to have students analyze their personal budget based on a potential job after high school. Use the spreadsheet to figure out their food budget and monthly menu planner.</p>
<p>Comic Life</p>	<p>-Create a cartoon or graphic novel with titles, panels, images, callouts, and text to convey understanding of historical figures or events. Apply color, style, fonts, and page layouts to creatively convey emphasis and meaning.</p> <p>-Create a dialogue between yourself and an important figure from a historical, economic, political, social, or cultural event to transmit the beliefs, values, behaviours and/or traditions of the time. include the impact the figure had in the outcome of the even. Examples</p> <ol style="list-style-type: none"> 1. President Roosevelt 2. Ben Franklin 3. Aristotle <p>-Create a dialogue between two figures from a historical, economical, political, social or cultural event demonstrating an understanding of the significance of the conflict or opposing viewpoints. Include the outcome of the even or present several plausible alternative solutions that could have improved the outcome of the event. Examples:</p> <ol style="list-style-type: none"> 1. President Kennedy and Khrushchev and the Cuban missile crisis 2. Robert E. Lee and Ulysses Grant 3. Kent State student Alan Canfora and President Nixon <p>-Create political cartoon based on primary resources for a historic event or persona.</p>
<p>Audio Creation Software (GarageBand Audacity, and Myna, etc.)</p>	<p>- Create an enhanced video and/or audio podcast about the language, literature, music, or arts of a historical, economical, political, social or cultural event.</p> <p>-Create a video and/or audio podcast infomercial that expresses an opposing view of a historical, economical, political, social, or cultural event.</p> <p>-Create a video and/or podcast that addresses an essential question about a historical, economical. political, social or cultural event.</p>

	<p>-Create a simulated radio broadcast from a period in history. Include jingles or archived, public domain audio recordings of events, commercials. or music.</p>
<p>Google, Sketchup Computer Aided Design (CAD) software</p>	<p>-Develop a digital model of an artifact showing its evolution over time in order to show the artifact's importance, impact, and relevance to social and economic development.</p> <ol style="list-style-type: none"> 1. The evolution of a knife 2. Build a model of flint tool 3. Build a model of a bronze tool 4. Build a model of a knife made of refined metals <p>-Explore two-dimensional and three-dimensional virtual models (e.g., from Google 3D Warehouse) of architecture and implements.</p> <ol style="list-style-type: none"> 1. Examine models of historical vehicles or implements 2. Conduct virtual tours of buildings or monuments <p>-Develop a digital model of an architectural building or man-made landmark in order to show the artifact's importance, impact, and relevance to social and economic development.</p> <ol style="list-style-type: none"> 1. Build a model of the Panama Canal; the pyramids; the Twin Towers
<p>Video Creation Software (iMovie MovieMaker etc.)</p>	<p>-Create a movie or VoiceThread about a historical person, event, or decade. When using VoiceThread or posting web videos, extend the project by requiring student to comment on their peer's projects.</p> <ol style="list-style-type: none"> 1. Development of the European Union 2. Genocides in History 3. Alaskan History 4. Global Conflicts and Terrorism 5. The Berlin Wall 6. The Cold War <p>-Interview and elder, senior, teacher. or another student and create a move or VoiceThread about the person, about how they were impacted by a historic event, about life in earlier times, or another culture.</p> <ol style="list-style-type: none"> 1. Aleut elder and the relocation during WWII 2. Inupiaq elders educational experiences prior to the Molly Hootch Act 3. Statehood of Alaska 4. Development of Alaska Pipeline 5. Veterans of Wars 6. Earthquake and Flood victims 7. Peace Corp of VISTA experiences

	<p>-Create a documentary about an even, culture, or location.</p> <ol style="list-style-type: none"> 1. Japanese internment in WWII 2. Apartheid 3. Cuban Missile Crisis 4. NAFTA 5. Canada 6. History of aviation 7. Industrial Revolution 8. Epidemics
Digital Images	<p>-Take original photos depicting news stories of current or historical events.</p> <p>-Create a collage or slide show depicting important “moments in time” for historical and current events.</p> <p>-Use photos to create positive and negative visual messages about the impact of scientific advances or technology on societies.</p> <p>-Use photos to convey the effects of rapid changes in social, economic, and political institutions and systems.</p> <p>-Create a poster or mural that examines the complex relationship between citizens and their government with a focus on human rights from a historical and contemporary viewpoint.</p> <ol style="list-style-type: none"> 1. Civil rights movement 2. Middle East events 2011 3. Effect of natural disasters and the potential changes to governmental structure and society as a whole 4. Federalism vs. States Rights 5. Bill of Rights and the Constitutional amendments
Google Earth and GPS	<p>-Create virtual tours in googleEArth using placemarks to demonstrate insight about historical time periods or regions</p> <ol style="list-style-type: none"> 1. Create a tour of Alaskan villages along the coastline, rivers. or for a specific region. Information the waypoints description would include written information and pictures of the biomes, indigenous groups and their customs, weather, food sources, flora/fauna etc. 2. Create a tour of the battles in the Revolutionary War 3. Create a tour of historical sites along major routes of American Westward Expansion(Lewis and Clark) Oregon Trail, Trail of Tears, Chisholm Trail, Pony Express, Transcontinental Railroad, California Gold Rush, Klondike and Alaska Gold Rush <p>-Use Google Earth layers to learn about, explore, and study:</p>

	<ol style="list-style-type: none"> 1. Ancient Rome 2. The Elders Project 3. Fair trade 4. Shipwrecks 5. Ocean Expeditions 6. US Government 7. Street view of different cities 8. Geographic features <p>-Learn about latitude and longitude using virtual globes like Google Earth</p> <p>-Create Layers in Google Earth to show the dispersal of:</p> <ol style="list-style-type: none"> 1. Minerals 2. Disease 3. Chemicals 4. Pollutants 5. Dominant societies <p>-Use Global Positioning System (GPS) receivers to mark and locate waypoints and learn about latitude and longitude. Develop an understanding of the historical impact of GPS technology, how it originated, became available to the public, and how its use is influencing our lives politically and personally.</p> <ol style="list-style-type: none"> 1. Conduct GPS geocaching activities or scavenger hunts. Involve students in creating caches and clues, and finding each other's waypoints 2. Import waypoints into Google Earth from GPS, and then add descriptions, pictures, and video to these waypoints . <ul style="list-style-type: none"> ● Walking historical tour of Fairbanks ● Cemetery ● Creamers Field ● Energy Resources (e.g., refineries, power plants, pipelines, geothermal sites)
iPod and iPad Apps	<p>-Use the audio, camera, and recording features to conduct interview, collect oral histories and capture first hand accounts of cultural experiences and historical accounts.</p> <p>-Use apps and web tools to access current events, explore historical sites, locate primary source of documents and learn about geographic features.</p>
SMART Board	<p>-Create SMART Notebook for historical figures, places, architecture, artifacts, national treasures, events, geographic locations etc. Example</p>

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| | <ol style="list-style-type: none">1. Rise and Fall of Roman Empire2. Silk Road3. Henry VIII4. Titanic5. Great Wall of China |
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Technology Curriculum
Preparing Students with the Technology Tools for Learning, Communication, and Productivity
***Suggested Curricular Activities: Grades 9-12**

Common Apps	World Languages
Word Processing (Word, Google Docs, or other document creation tools)	<ul style="list-style-type: none"> - Create media-rich documents to demonstrate understanding of significant historical events. Creatively apply layout, styles, heading, and fonts to enhance visual appeal. <ol style="list-style-type: none"> 1. Create a vacation travel brochure or newsletter on a given country. 2. Watch and create a movie review of a foreign film. 3. Create an advertisement for the film watched including movie title, name of theatre, showtimes, telephone number, address, and a map of how to get there.
Presentation Tools (PowerPoint, SlideRocket, Prezi, Google Docs, or other digital presentation tools)	<ul style="list-style-type: none"> -Create and deliver a multimedia presentation incorporating images, sound, text, color, video, and links to demonstrate understanding of world languages and cultures. <ol style="list-style-type: none"> 1. Highlight unique holidays, customs, or societal issues. 2. Present information about a country where the language is spoken.
Spreadsheets (Excel, Google Docs, or other spreadsheet tools)	<ul style="list-style-type: none"> - Create spreadsheets and charts depicting demographic, geographic, and economic statistics relevant to countries and their cultures. <ol style="list-style-type: none"> 1. Compile, chart, analyze, and discuss data researched by different students into collaborative spreadsheets. 2. Collect data using forms to create class resource lists for studying world languages
Comic Creation Software	<ul style="list-style-type: none"> -Create of story and turn it into comic layout. <ol style="list-style-type: none"> 1. Make a graphic novel that demonstrates understanding of nouns, verbs, and grammar in the language studied.
Audio Creation Software (GarageBand Audacity, Myna, etc.)	<ul style="list-style-type: none"> -Record and autobiography in their given language using pictures they have from their life -Capture audio and images of native language speakers. Record translations of the conversation. -Create audio podcasts of conversations to practice speaking in the language studied.

<p>Google Earth and Google Maps</p>	<p>-Research a country with primary language studied. Identify cities, historical landmarks, geographic features, and other points of interest. Create and share Google Earth placemarks to create virtual tours of these features.</p> <ol style="list-style-type: none"> 1. Use Google Earth layers and/or street view to view the museums, streets, capital, and historic landmarks for the country. 2. Collaborate with your ITT to use Google forms or spreadsheet mapper to generate media rich placemark sets.
<p>Video Creation Software (iMovie MovieMaker)</p>	<p>-Create a documentary about a given country using voice covers on video, pictures, and music.</p> <ol style="list-style-type: none"> 1. Produce commercials or public service messages in the language studied. 2. Create a script and storyboard for a 2-3 minute video short. 3. Record video of current events and narrate them in the studied language. 4. Create English subtitles to translate the scenes in recorded video.
<p>Online Study Guides</p>	<p>-Create digital flash cards with online resources (e.g., Quizlet, quia, Scholastic.com) that include pictures from Flickr and/or creative common databases to study vocabulary, phrases, and grammar.</p> <ol style="list-style-type: none"> 1. Use Mango languages through the public library to practice conversational expression.
<p>Video Conferencing</p>	<p>-Arrange with a teacher to use video conferencing software to communicate with other students in different countries or towns and practice conversing based on a specific set of questions.</p>
<p>iPod and iPad Apps</p>	<p>-Communicate with students around the world. INstead of writing letters to other students have your students exchange email. All students correspondence can and should be monitored by the teacher.</p>
<p>ePals</p>	<p>-use Google Translate to learn vocabulary</p> <p>-Use voice recorder to practice oral assessments.</p> <p>-Listen to podcasts and music in world languages.</p> <p>-Use flash card apps and digital phrase books to learn new vocabulary.</p>