

GRADES 9-12

Strand 1: Creativity and Innovation

This strand requires that students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Concept 1: Knowledge and Ideas

Use digital models and simulations to examine real-world connections, explore complex systems and issues, and enhance understanding.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Analyze, evaluate, and synthesize information to generate new ideas, processes, or products.	<p>M HS-S5C2-09: State the inverse, converse, and contra-positive of a given statement and state the relationship between the truth value of these statements and the original statement.</p> <p>Reading (10)- S3C2-01: Synthesize information from multiple sources to solve a problem.</p> <p>SC HS-S1C1-01: Evaluate scientific information for relevance to a given problem.</p> <p>SC HS-S1C1-02: Develop questions from observations that transition into testable hypotheses.</p> <p>SS HS-S2C1-06: Apply the skills of historical analysis to current social, political, geographical, and economic issues facing the world.</p>	<p>Explanation: Sort through the abundance of information through analysis and evaluation so that students may select and blend relevant pieces of information in order to arrive at their own conclusions and solutions.</p> <p>Geometry: During the conditional statements unit, students can create their own product, write a conditional statement and its converse statement, and discuss its truth values. If both statements are true, the a bi-conditional can be written.</p> <p>Language Arts: Use creative writing to make cartoons to tell a story (e.g., makebeliefscomix.com).</p> <p>Science: Use a virtual lab scenario to test unknown factors based on prior knowledge (e.g., unknown sol.)</p> <p>World History: Research the global economy to analyze how various world economies are inter-connected, and create an online presentation (e.g. http://prezi.com) showcasing this synthesis.</p> <p>Writing Strand 3: Although this strand calls for analysis, evaluation, and synthesis to generate conclusions and theses; however, help students brainstorm various products that do not necessarily have to be a written paper to showcase these objectives.</p>

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Strand 1: Creativity and Innovation

Concept 2: Models and Simulations

Use digital models and simulations to examine real-world connections, explore complex systems and issues, and enhance understanding.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Predict and test the relationships amongst interdependent elements of a digital model, simulation or system.	<p>Business Management 2.5: Predict how changes in sales volume, unit costs, and unit sales pricing affect net income.</p> <p>M HS-S5C2-07: Analyze and explain the general properties and behavior of functions or relations using algebraic and graphing techniques.</p> <p>M HS-S4C3-06: State the inverse, converse, and contra-positive of a given statement and state the relationship between the truth value of these statements and the original statement.</p> <p>SC HS-S1C2-04: Conduct a scientific investigation that is based on research design.</p>	<p>Explanation: Incorporate digital models, simulations, and systems to increase the ease and efficiency in which relationships can be explored.</p> <p>Business Management: Facilitate discussion with students to synthesize and make predictions about how changes in sales systems affect net income.</p> <p>Algebra 2: Given a list of different equations stemming from the same parent functions (linear, quadratic, absolute value, etc.), using a graphing calculator, spreadsheet software, or Internet flash program, students will predict relationships in the graphs depending on the changes made to x or the function of x.</p> <p>Math: Review the functions and relationships of truth value of statements as explained in mathematical video segments online to reinforce concepts with students (i.e. http://www.khanacademy.org/)</p> <p>Science: Predict and infer information from graphical analysis of data (e.g., respiration rate based on exercise versus rest).</p> <p>Web resources: http://www.shodor.com</p>
PO 2. Propose or create a model, simulation, or system.	<p>M HS-S3C3-03: Use matrices to represent everyday problems that involve systems of linear equations.</p> <p>PE HS-S2C2-02: Compare and contrast personal physical activity levels to the national physical activity levels recommended for adolescents.</p> <p>Reading (10) S1C6-03: Use graphic organizers in order to clarify the meaning of text.</p>	<p>Explanation: Models, simulations, and systems aid in understanding and processing information.</p> <p>Algebra 2: Linear Programming -- Use graph paper to create a picture using lines, parabolas, absolute values, etc. and then write the equations associated with each line and list all restrictions on the domain and range. Use an equation grapher online or a graphing calculator to assist. Once complete, swap pictures with a partner and re-create the pictures using the given equations and restrictions.</p>

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Performance Objectives	Curriculum Connections	Explanations and Examples
	<p>Reading (10) S1C6-05: Apply knowledge of organizational structures of text to aid comprehension.</p> <p>SC HS-S4C1-06: Describe the following features and components of the atom:</p> <ul style="list-style-type: none"> • protons • neutrons • electrons • mass • number and type of particles • structure • organization <p>SS HS-S2C1-04: Construct graphs, tables, timelines, charts, and narratives to interpret historical data.</p>	<p>Dance: Create a model or simulation of movement patterns or movement combinations using technology tools.</p> <p>English: Develop graphic organizer or organizational structure for a writing project.</p> <p>Math: Utilize websites to assist with digital models and simulations (e.g., Classzone, http://learner.org/interactives/).</p> <p>Physical Education or Science: Complete a lung capacity experiment using a 2-liter bottle simulate lung capacity by blowing into it. When it's submerged in water, measure the distance of the water decreased in the container. To take it one step further, use spreadsheet software to calculate a graph of repeat breathing attempts.</p> <p>Science: Use 3D software (e.g., Google SketchUp www.sketchup.google.com) to create a structure (e.g. atom, cell).</p> <p>Science: Compare and contrast historical models of the atom to increase understanding.</p> <p>Social Studies: Create a graph to represent population demographics. Web resources: http://www.shodor.com</p>
PO 3. Predict how one system operates by comparing it to multiple systems, digital models or simulations.	SS HS-S1C1-02: Distinguish among dating methods that yield calendar ages, numerical ages, correlated ages, and relative ages.	<p>Explanation: Being able to predict outcomes showcases fundamental understanding in other models, simulations, and systems.</p> <p>Science: Use simulation websites (e.g., simulator of roller coasters) to explore science concepts to have students summarize the laws of motion.</p> <p>Social Studies: Facilitate students' discussion comparison of various dating methods function. Web resources: http://www.shodor.com</p>

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Concept 3: Trends and Possibilities

Use technology to forecast trends and possibilities.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Analyze patterns and trends and their logical links to form inferences, and forecast possibilities providing novel insights.	<p>M HS-S2C1-08: Draw a line of best fit for a scatterplot with or without technology, describe how the correlation coefficient relates to fit, and explain when it is appropriate to use the regression equation to make predictions.</p> <p>SC HS-S5C1P01: Describe substances based on their physical properties.</p> <p>SS HS-S1C1-01: Interpret historical data displayed in maps, graphs, tables, charts, and geologic time scales.</p>	<p>Explanation: Identifying patterns and trends is essential to predicting and developing preventions and solutions.</p> <p>Math: Line of best fit -- Given a scatter-plot of data relevant to the current times, students create a line of best fit to predict future values using a graphing calculator, spreadsheet, or the Internet. Then have students use future values to predict future problems, solutions, etc.</p> <p>Math: Forecast trends and possibilities to find probability and statistical numbers. Use online interactive tools to facilitate visuals of statistics.</p> <p>Science: Provide online tools or graphing calculators to facilitate students graph the effect of temperature on different substances as they go through phase change and compare.</p> <p>Social Studies: Analyze historical data presented in visual formats to find patterns and trends to predict the future (e.g., economy, disease - BBC "Joy of Stats" http://www.youtube.com/watch?v=jbkSRLYSojo&feature=player_embedded)</p>

Strand 1: Creativity and Innovation

Concept 4: Original Works

Use technology to create original works in innovative ways.

Performance Objective	Curriculum Connections	Explanations and Examples
PO 1. Create innovative products	Dance-S2C5-203: Using current technology create a sound-score for	Explanation: Digital tools allow students the ability to create multi-

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Performance Objective	Curriculum Connections	Explanations and Examples
or projects using digital tools to express original ideas.	<p>dance.</p> <p>M HS-S5C2-01: Analyze a problem situation, determine the question(s) to be answered, organize given information, determine how to represent the problem, and identify implicit and explicit assumptions that have been made.</p> <p>M HS-S5C2-02: Solve problems by formulating one or more strategies, applying the strategies, verifying the solution(s), and communicating the reasoning used to obtain the solution(s). M HS-S5C2-03: Evaluate a solution for reasonableness and interpret the meaning of the solution in the context of the original problem.</p> <p>Music (Performing Ensembles - Choir) S1C4-103-403: Using technology and multimedia to enhance knowledge and application of composing and arranging music.</p> <p>PE HS-S2C1-02: Incorporate the principles of bio-mechanics and kinesiology to the personal fitness program.</p> <p>SC HS-S3C4-03: Communicate results clearly and logically.</p> <p>SS HS-S2C5-01: Describe the religious, economic, social, and political interactions among civilizations that resulted from early exploration.</p> <p>Visual Arts-S2C2-303: Describe how scientific and technological advances influence the materials, tools, and techniques used by artists.</p>	<p>media, interactive, and professional looking products, often at reduced cost and increased time flexibility.</p> <p>Dance: Provide storyboard structure for students to use digital tools to provide the ability to capture all demonstrations. Then have students digitally apply their sound-score to the dance digital video.</p> <p>Math: Have the students create a video diary of their failures and successes in creating the best model possible of a structure holding as much weight as possible without breaking. Have students compete against one another to see whose structure can hold the most weight.</p> <ul style="list-style-type: none"> ○ Materials: 50 Popsicle sticks ○ glue (same brand) ○ must be at least 8 inches high ○ the perimeter must be at least 24 inches <p>Physical Education: Facilitate students demonstrating proper and safe weight-lifting techniques. Best practices could be recorded digitally and shared on a fitness school webpage and statistics kept on an digital spreadsheet. Learn more from marathon runners and data collected from their training (i.e. NOVA example http://www.pbs.org/wgbh/nova/marathon/fit.html)</p> <p>Science: Create videos to help teach conceptual ideas (e.g., chemical bonding, photosynthesis) beginning with students first storyboarding their ideas on paper to ensure they are in logical order.</p> <p>Social Studies: Use a digital tool to create a flow chart tracking the impact of expansion and colonization by Europeans. Consider also opening Google Maps on an interactive whiteboard and have students use the whiteboard pens to trace the paths of influence.</p> <p>Visual Arts: In a photography project, have students research the timeline of use of 35MM film versus the use of digital film. Provide a web example (i.e. http://photo.net/history/timeline) and have students use animoto.com to create their own visual version.</p>
PO 2. Use digital collaborative tools to synthesize information, produce original works, and	Dance-S3C1-206: Using current technology create a sound-score for dance.	Explanation: Digital collaborative tools increase students' ability to efficiently collaborate and produce.

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Performance Objective	Curriculum Connections	Explanations and Examples
express ideas.	<p>Music-S1C5-107-307: Use technology and multimedia to enhance knowledge and application of reading and notating music.</p> <p>SC HS-S4C2-03: Explain how genotypic variation occurs and results in phenotypic variation.</p> <p>SS HS-S1C1-07: Compare present events with past events.</p>	<p>Dance: Use online collaborative tools (i.e. ArtSnacks http://www.essdackartsnacks.org) to share digitally created sound-scores and provide evaluative feedback to peers.</p> <p>Music: Explore digital tools with students for reading and notating music (i.e. http://www.noteflight.com).</p> <p>Science: Have students collect websites on a specific curricular topic in an online tool (i.e. SimplyBox.com) and define why the website is valuable to the topic and a credible source (e.g., genetic disorder research).</p> <p>Social Studies: Use a digital collaborative tool to create a Venn diagram contrasting past and present points of view about colonialism.</p> <p>Writing Strand 3: This particular strand calls for synthesis to generate conclusions and as they develop a thesis; however, the product does not necessarily have to be a written paper to showcase these objectives. The use of digital tools increases the ability to collaborate and the variety in which ideas can be expressed.</p> <p>Use social networks (e.g., Ning, Nice.net) to form online discussions on a content topic.</p> <p>Use collaboration work environments (e.g., Google Docs) to work together to finish a final product.</p>

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Strand 2: Communication and Collaboration

This strand requires students to use digital media and environments to communicate and collaborate with others.

Concept 1: Effective Communications and Digital Interactions

Communicate and collaborate with others employing a variety of digital environments and media.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Collaborate with peers, experts, or others in the global community employing a variety of digital tools to share findings and/or publish in a variety of ways.	<p>Dance-S1C4-308: Use technology and the Internet to communicate with a specialist in choreography or improvisation.</p> <p>Foreign Language 6FL-P3: Compare and contrast the treatment of current issues in both the target culture and the student's culture by drawing on authentic texts.</p> <p>Math HS-S5C2-13: Identify and explain the roles played by definitions, postulates, propositions and theorems in the logical structure of mathematics, including Euclidean geometry.</p> <p>Reading HS-S2C2-01: Compare events, characters and conflicts in literary selections from a variety of cultures to their experiences Reading HS-S2C2-02: Relate literary works to the traditions, themes, and issues of their eras.</p> <p>Social Studies HS-S2C9-04: Examine environmental issues from a global perspective.</p> <p>Visual Arts-S3C1-301: Debate opinions about issues associated with art (e.g., nature and value) with the opinions of their peers.</p> <p>Visual Arts-S3C1-303: Discuss reasons why people value art (e.g., sentimental, financial, religious, political, historical).</p>	<p>Explanation: Digital communication and collaborative tools (e.g., ePals Goba Community, Student Letter Exchange) increase students' ability to connect with others beyond the classroom and share creations.</p> <p>Foreign Language: Read target language blogs about current issues and post responses in the target language.</p> <p>Language Arts: Read the same piece of literature another class from a different culture reads and create a wiki to post ideas and media to discuss the cultural aspects and themes.</p> <p>Math: Research a current math topic in Euclidean Geometry and have the students pick a math topic to research. They can interview an expert as a source, use the Internet, etc. Once completed, they can share their information as a video, presentation (e.g., PowerPoint), create a poster (e.g., Glog), book, etc.</p> <p>Science: Create vodcasts to use visual presentation of classwork (e.g., chemical reactions, balancing equations, protein synthesis).</p> <p>Social Studies: Read and write blog posts about climate change and green technologies.</p> <p>Visual Arts: Discuss the topic of intellectual property, copyright, and trademark issues in the arts. This discussion can take place in a blog, discussion board, etc.</p> <p>Visual Arts: Discuss the topic of how people value art. This discussion can take place in a blog, discussion board, etc.</p>

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Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2. Communicate information and ideas respectfully and effectively to multiple audiences using a variety of digital environments.	<p>Dance-S1C4-208: Use technology or the Internet to share choreography and discussion between two different schools/groups.</p> <p>Health-S1C3-02: Evaluate the impact of food and nutrition, including nutrient deficiencies, on health.</p> <p>SC HS-S1C4-03: Communicate results clearly and logically.</p> <p>Writing (10)-S1C5-01: Prepare writing that follows a format appropriate for the purpose.</p> <p>Writing (10)-S2C3: Voice will vary according to the type of piece, but should be appropriately formal or casual, distant or personal, depending on the audience and purpose.</p>	<p>Explanation: Choices of products available digitally allow for students to tailor their creations to their purpose and audience.</p> <p>Dance: Share choreography strategies in online discussions in text and video (i.e. Moodle, Groups, Ning, ePals) facilitated by the teachers initially and eventually led by the students.</p> <p>Language Arts: Practice voice by writing a blog entry for students, parents, and the school board.</p> <p>Science: Use an interactive whiteboard for simulations such as dissecting frogs.</p> <p>Social Studies: Describe or analyze results so they can be presented in varying ways and assorted audiences.</p> <p>Writing: Create a table with various purposes and audiences. Then facilitate a discussion with students to brainstorm various digital environments and tools applicable to both those categories.</p> <p>Writing: Students create a presentation (e.g., Letter to the Editor, PowerPoint, Prezi or Keynote) and can also orally present it to their peers.</p>

Strand 2: Communication and Collaboration

Concept 2: Digital Solutions

Contribute to project teams to produce original works or solve problems.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Communicate and collaborate for the purpose of producing original works or solving problems.	<p>Business Management 3.4: Solicit and use feedback.</p> <p>M HS-S5C2-01: Analyze a problem situation, determine the question(s) to be answered, organize given information, determine how to represent the problem, and identify implicit and explicit</p>	<p>Explanation: Students must be able to work with their peers, authority, and outside experts to be able to create and propose solutions. Technology can make communication and collaboration more effective as well as in the creation of the final work or solution.</p>

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	<p>assumptions that have been made.</p> <p>SC HS-S1C3-07: Propose further investigations based on the findings of a conducted investigation.</p> <p>SS HS-S1C1-06: Apply the skills of historical analysis to current social, political, geographic, and economic issues facing the world.</p> <p>SS HS-S2C2-02: Analyze the development and historical significance of Hinduism, Judaism, Buddhism, Christianity, and Islam.</p>	<p>Business Management: Use an online survey to solicit collaborative feedback and have student groups create pivot tables and animated presentations to share results in a gallery walk format with the class.</p> <p>Computer Science: When writing code, students solve a given problem (for example: writing a code to compute the number of seconds in a year). Resource:</p> <ul style="list-style-type: none"> • www.csta.acm.org <p>Math: Work in groups to create a digital project (powerpoint, excel, paint, video, etc.) to demonstrate how to find the maximum profit a company can make using mathematics.</p> <p>Science: Collaborate on online group projects providing experimental data to aid scientific research (ex: Jason Project, Monarch Butterfly project)</p> <p>Social Studies: Use an online collaborative tool to create a document analyzing the historical significance of major world religions.</p>
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Strand 2: Communication and Collaboration

Concept 3: Global Connections

Create cultural understanding and global awareness by interacting with learners of other cultures.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Engage in a global community to contribute to a specific global issue.	<p>Foreign Language 7FL-P1: Research topics of personal, global, or community interest, using resources produced for native speakers.</p> <p>Health-S3C2-03: Participate in physical activities that contribute to the attainment of personal goals and the maintenance of lifetime wellness.</p> <p>SS HS-S3C5-03: Describe world governmental and non-governmental organizations.</p>	<p>Explanation: As world industries become increasingly connected, students are encouraged to increase awareness and participate in global topics (e.g., The Center for Innovation in Engineering and Science Education Collaborative Projects http://www.k12science.org/collabprojs.html, ePals Global Community).</p> <p>Foreign Language: Analyze materials intended for native speakers in other cultures in order to gain a larger global picture of current issues.</p>

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Performance Objectives	Curriculum Connections	Explanations and Examples
	<p>SS HS-S3C3-05: Describe the factors and processes that determine major domestic policies.</p> <p>SC HS-S3C1-01: Evaluate how the processes of natural ecosystems affect, and are affected by, humans.</p> <p>SC HS-S3C1-05: Evaluate the effectiveness of conservation practices and preservation techniques on environmental quality and biodiversity.</p>	<p>Health: Create obstacle courses to promote health and awareness; create a individual fitness program.</p> <p>Science: Participating in the community for an Earth Day project.</p> <p>Social Studies: Collaborate with another classroom (in the nation or world) to discuss solutions for Word Peace, ending world hunger, etc. Tech tools include: Using email, social networks, webcams, etc.</p> <p>Social Studies: Research current issues important to groups such as NATO, the European Union, the International Red Cross, etc. and use collaborative tools to propose solutions.</p> <p>Social Studies: Write an email message or blog post to a state or federal Congressman with questions/concerns about a major domestic policy issue.</p>

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Strand 3: Research and Information Literacy

This strand requires that students apply digital tools to gather, evaluate, and use information.

Concept 1: Planning

Plan strategies to guide inquiry using technology.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Identify and defend effective key words, phrases, and strategies for conducting information searches.	<p>SC HS-S1C2-02: Identify the resources needed to conduct an investigation.</p> <p>SS HS-S1C1-06: Apply the skills of historical analysis to current social, political, geographical, and economic issues facing the world.</p> <p>SS HS-S2C1-06: Apply the skills of historical analysis to current social, political, geographical, and economic issues facing the world.</p> <p>Writing (10)-S2C4-01: Use accurate, specific, powerful words and phrases that effectively convey the intended message.</p>	<p>Explanation: With available information increasing at a rapid rate, students must be able to effectively search for information.</p> <p>Science: Use online databases (e.g., ERIC) to find information based on key terms.</p> <p>Social Studies: Determine the key words and phrases needed to research a current political issue.</p> <p>Social Studies and Writing Standards require research to be conducted. Being able to research effectively whether online or a database of resources is a skill that extends far beyond the classroom.</p>
PO 2. Evaluate diverse information sources.	<p>SC HS-S1C3-03: Critique reports of scientific studies (e.g., published papers, student reports).</p> <p>SS HS-S1C1-05: Evaluate primary and secondary sources.</p> <p>SS HS- S2C1-05: Evaluate primary and secondary sources.</p> <p>SS HS-S1C10-02: Identify connection between current and historical events and issues using information from class discussions and various resources.</p> <p>SS HS-S2C9-05: Connect current events with historical events and issues using information from class discussions and various resources.</p>	<p>Explanation: Evaluation of information is critical if a student is going to be able to select appropriate information to synthesize.</p> <p>Language Arts: For an author comparison research paper, students complete an Internet Evaluation form for three of their resources (as well as completing a bibliography).</p> <p>Science: Evaluate scientific research articles from online peer journals.</p> <p>Social Studies: Research various historical human rights violations and compare them with current violations using authoritative information from various sources.</p>

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Strand 3: Research and Information Literacy

Concept 2: Processing

Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Locate and synthesize information utilizing advanced search strategies including a variety of search engines, metadata search engines, deep web searches and databases.	<p>Business Operations Standard 15: Demonstrate proficiency navigating the Internet and intranet.</p> <p>M HS-S5C1-01: Select an algorithm that explains a particular mathematical process; determine the purpose of a simple mathematical algorithm.</p> <p>SC HS-S2C2-02: Explain the process by which accepted ideas are challenged or extended by scientific innovation.</p> <p>SS HS-S2C1-05: Evaluate primary and secondary sources.</p> <p>Writing (10)-S3C6-01: Write a research report that (b.) integrates information from two or more pieces of primary and/or secondary research information.</p>	<p>Explanation: The wealth of information requires effective search techniques available to various resources.</p> <p>Resources:</p> <ul style="list-style-type: none"> • http://www.google.com/educators/p_websearch.html • http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Strategies.html <p>Dance: Strand 2 lends itself to being able to search effectively when gathering information on origins, history, and evolutions of dance.</p> <p>Language Arts: Use advanced search strategies to locate primary and secondary information resources.</p> <p>Math: Have the students research the relevancy of the need of the properties of equality when solving algebraic equations. Require them to use advanced search engines, databases, etc. Require them to cite one source from each category. For example, using http://www.shodor.org, students can investigate the usefulness of properties to help them in their research.</p> <p>Science: using meta search engine(ex: Dogpile) to search for websites on the specific topic (i.e.: artificial hearts, prosthetics, human genome project).</p> <p>Social Studies: Use advanced search strategies to locate primary and secondary information resources.</p>
PO 2. Defend the authority of primary and/or secondary sources used in research.	<p>Foreign Language 5FL-P3: Use a variety of authentic sources in the target language to prepare reports for other content areas.</p> <p>SS HS-S1C1PO5: Evaluate primary and secondary sources.</p> <p>SS HS-S2C1PO5: Evaluate primary and secondary sources.</p>	<p>Explanation: Justification of sources is not new, but the availability and variety of sources has increased dramatically. Resource:</p> <ul style="list-style-type: none"> • http://www.loc.gov/creativity/hampson/workshop/primaryvsecondary.pdf <p>Foreign Language: Evaluate primary and/or secondary sources in the target language for authority.</p>

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	Writing (10)-S3C2-01: Write an explanatory, multi-paragraph essay that (d) communicates information and ideas from primary and/or secondary sources accurately and coherently, as appropriate.	<p>Language Arts: Students choose authoritative primary and/or secondary resources to use as the basis of an expository essay.</p> <p>Social Studies: Examine documents to determine if the articles are credible and valid.</p>
PO 3. Evaluate information identifying facts, opinions, bias, inaccurate and misleading information by analyzing multiple sources.	<p>Culinary Arts: Discuss contemporary nutritional concerns such as vegetarianism, heart healthy menus, and religious dietary laws.</p> <p>Reading (10)-S3C1-02: Distinguish supported inferences from unsupported inferences in expository selections.</p> <p>Reading (10) S3C3-03: Identify unsupported inferences or fallacious reasoning in the arguments advanced in persuasive text.</p> <p>SS HS-S1C1-05: Evaluate primary and secondary sources for: (a) author's main points (b) purpose and perspective (c) facts vs. opinions (d) different points of view on the same historical event (e) credibility and validity.</p> <p>SS HS-S2C1-05: Evaluate primary and secondary sources for: (a) author's main points (b) purpose and perspective (c) facts vs. opinions (d) different points of view on the same historical event (e) credibility and validity.</p> <p>SC HS-S1C2-02: Evaluate whether investigational data support or do not support the proposed hypothesis.</p>	<p>Explanation: The wealth of information requires a critical eye especially since the availability and variety of information and sources has increased dramatically</p> <p>Language Arts: Begin with having students review BBC website on fact vs. opinion. http://www.bbc.co.uk/skills/words/reading/fact_and_opinion/fact_sheet.shtml Then students find examples of facts and opinions in local or national newspapers and use the content from the website to support their answers.</p> <p>Language Arts: Students can search a topic relevant to what is being studied at the time and truly examine the varying sources for such qualities (especially those available online).</p> <p>Science: Students review steps for gathering valid data. Following the review, students evaluate the validity of data from a given experiment, gathered by other classes. Resources include: http://www.sciencebuddies.org/science-fair-projects/project_scientific_method.shtml</p> <p>Social Studies: Evaluate three articles about the causes of the poverty in Haiti.</p> <p>Culinary Arts: Research pro and con articles about a contemporary nutritional issue, analyzing facts versus opinions, bias, and inaccurate and misleading information by analyzing multiple sources.</p> <p>Interview professionals in careers or experts in a field. Determine facts and opinions from transcripts, recordings, or videos.</p>

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Performance Objectives	Curriculum Connections	Explanations and Examples
PO 4. Synthesize research information to create new understanding and innovative solutions.	<p>Culinary Arts 2.2: List the primary functions and best sources of each of the major vitamins and minerals.</p> <p>Foreign Language 3FL-P2: Present a research project orally or publish it in writing or in a video.</p> <p>Reading (10)-S3C2-01: Synthesize information from multiple sources to solve a problem.</p> <p>SS HS-S2C9-04: Examine environmental issues from a global perspective.</p> <p>Writing (10)-S3C2: The writing supports a thesis based on research, observation, and/or experience.</p> <p>Writing (10)-S3C6: The writer locates and evaluated information about the topic or question, and then organizes, summarizes, and synthesizes the information into a finished product.</p>	<p>Explanation: Students must be able to select and blend relevant pieces of information to arrive at their own conclusions. The product does not need to be a paper to adequately express ideas.</p> <p>Culinary Arts: Research nutrition and create a personal grocery shopping list of foods that will meet basic nutritional needs and personal taste/cooking choices.</p> <p>Foreign Language: Synthesize research information and present findings orally in a podcast, in a digital written document, or in a digital video.</p> <p>Social Studies: Research various causes of climate change and synthesize results.</p>
PO 5. Apply ethical use of information and media by respecting the principles of copyrights, intellectual freedom and property rights, using information and media technology responsibly, and citing resources appropriately.	<p>Writing (10)-S2C6-12: Use appropriate format, according to type of writing, to cite sources.</p> <p>Writing (10)-S3C2-01: Write an explanatory, multi-paragraph essay that (e) attributes sources of information, as appropriate.</p>	<p>Explanation: Citing resources have expanded beyond books and articles, and students are using sources in more than just papers. Digital citizenship curricula (e.g., Microsoft's Digital Citizenship Ed) will often focus on this area.</p> <p>Resources to explain copyright:</p> <ul style="list-style-type: none"> • http://www.loc.gov/teachers/copyrightmystery/ • http://creativecommons.org/ <p>Language Arts: Consult resources for information to use in an expository essay. Cite the sources correctly according to a style manual.</p> <p>Social Studies: Discuss the ethics behind such guidelines and laws as they relate to current topics that come from artistic creation, intellectual property, and remixing. (S1C10PO1)</p> <p>Many multimedia projects require students to remix. Students must be aware of and restrictions and permissions that may exist for content (in any form).</p> <p>During research projects, properly cite sources and avoid plagiarism.</p>

Arizona Educational Technology Standard Articulated by Grade Level

Strand 4: Critical Thinking, Problem Solving, Decision Making

This strand requires students to use critical thinking, problem solving, and decision making to manage projects using digital tools and resources.

Concept 1: Investigation

Identify and define authentic problems and significant questions for investigation.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Write essential questions to investigate a complex (multi-step) issue using digital tools and resources.	<p>Writing (10)-S1C1-01: Generate ideas through a variety of activities.</p> <p>SS HS-S2C1-03: Formulate questions that can be answered by historical study and research.</p> <p>Writing (10)-S3C2-01: Expository Expository writing includes non-fiction writing that describes, explains, or summarizes ideas and content. The writing supports a thesis based on research, observation, and/or experience.</p> <p>SC HS-S4C4-04 Biological Evolution Understand the scientific principles and processes involved in biological evolution.</p>	<p>Explanation: Digital tools and resources allow for a more effective and efficient investigation and housing for such questions.</p> <p>Language Arts: Students create a school blog about building community among high school students.</p> <p>Language Arts: Generate questions for research as part of a brainstorming activity using digital tools and resources.</p> <p>Science: Write essential questions to human body disorders or for biomedical technology.</p> <p>Science: Students develop an interactive slide show reflecting essential questions about Phenology (the timing of natural cycles in plants and animals) and climate change and use these questions to research the topic.</p> <p>Social Studies: Generate questions that can be answered by historical study and research as part of a brainstorming activity using digital tools and resources.</p>

Arizona Educational Technology Standard Articulated by Grade Level

Strand 4: Critical Thinking, Problem Solving, Decision Making

Concept 2: Exploring Solutions

Plan and manage activities to develop solutions to answer a question or complete a project.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Plan and manage an individual learning project that collects multiple data sets from diverse sources, creating planning adjustments and course corrections from the knowledge gained.	<p>M HS- S2C1-03: Display data, including paired data, as lists, tables, matrices, and plots with or without technology; make predictions and observations about patterns or departures from patterns.</p> <p>SC HS-S1C2-05: Record observations, notes, sketches, questions, and ideas using tools such as journals, charts, graphs, and computers.</p> <p>Reading (10)-S3C1-04: Organize information from both primary and secondary sources.</p> <p>Reading (10)-S3C1-05: Interpret graphic sources of information to support ideas. Reading (10)-S3C1-06: Use knowledge of modes of expository writing to interpret text.</p> <p>SS HS-S1C1-06: Apply the skills of historical analysis to current social, political, geographical, and economic issues facing the world.</p> <p>SS HS-S2C1-06: Apply the skills of historical analysis to current social, political, geographical, and economic issues facing the world.</p> <p>Theatre-S1C3-303: Design original ground plans and set designs for a variety of dramatic works.</p>	<p>Explanation: Real world activities easily fall into this objective where students are expected to collect data and manage a project the same way businesses and other entities do.</p> <p>Science or Math: Using CBL2 (calculator-based learning) with graphing calculators, sensors, probes, and/or microscopes, collect data to create graphs in spreadsheets. Can be displayed on an interactive whiteboard to engage the students in group discussions, questions, etc.</p> <p>Social Studies: Students choose a current world problem and develop a research projects to explore and report on it.</p> <p>Theatre: Students can be given a list of dramatic works and describe what they would do in their set designs, backing up their answers with appropriate research.</p> <p>Potential tools: Microsoft Project (if available for project management. Introduce students to Google docs. Simple alternative create a folder that students may drop work into on the school server.</p> <p>Tip: To encourage the integration of technology in project and research, require all elements of the project be recorded electronically in some way, as a document, audio or video recording, data gathering and representation or web interface.</p>
PO 2. Present defensible solutions and make decisions from multiple perspectives using collected resources and data.	<p>Reading (10)-S3C1-08: Support conclusions drawn from ideas and concepts in expository text.</p> <p>Reading (10)-S3C2-02: Synthesize information from multiple sources to draw conclusions.</p> <p>SC HS- S1C3-02: Evaluate whether investigative data support or do</p>	<p>Explanation: Students should present and defend determinations, and such presentations can take on various formats.</p> <p>Language Arts: Create a product that clearly expresses ideas and content, has a strong organization, appropriate word choice, and follows writing conventions.</p>

Arizona Educational Technology Standard Articulated by Grade Level

Performance Objectives	Curriculum Connections	Explanations and Examples
	<p>not support the proposed hypothesis.</p> <p>SS HS-S1C10-02: Identify the connection between current and historical events and issues using information from class discussions and various resources (e.g., newspapers, magazines, television, Internet, books, maps).</p> <p>Writing (10)-S2C1: Writing is clear and focused, holding the reader's attention throughout. Main ideas stand out and are developed by strong support and rich detail. Purpose is accomplished.</p> <p>Writing (10)-S3C2: The writing supports a thesis based on research, observation, and/or experience.</p> <p>Writing (10)-S3C4: The author presents an issue and expresses an opinion in order to convince an audience to agree with the opinion or to take a particular action.</p> <p>Writing (10) S3C6-01: Write a research paper that (a) incorporates evidence in support of a thesis/claim (b) integrates information from two or more pieces of primary and/or secondary research information.</p>	<p>Language Arts: Write a research paper that uses evidence from sources to support claims.</p> <p>Math or Science: Using given data, students will use a spreadsheet, graphing calculator, probes, etc. to create a scatterplot. Create a line of best fit, predict future values, and a prediction equation to help solve a problem dealing with future events. Students will then defend their answers using their work from their graph.</p> <p>Science: Carry out human systems debate. Students are assigned a body system and they must prove through research and debate why their system is the most important to the body.</p> <p>Social Studies: Students are asked to describe and interpret past events and connect them to current events. Such objectives can be taken a step further by asking students to propose solutions based on collected resources.</p>

Arizona Educational Technology Standard Articulated by Grade Level

Strand 5: Digital Citizenship

This strand requires students to understand human, cultural, and societal issues related to technology practice and ethical behavior.

Concept 1: Safety and Ethics

Advocate and practice safe, legal, and responsible use of information and technology.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Determine when it is appropriate and safe to use various personal digital devices.	SS HS-S1C10-03: Describe how key political, social, environmental, and economic events of the late 20th century and early 21st century (e.g., Watergate, OPEC/oil crisis, Central American wars/Iran-Contra, End of Cold War, first Gulf War, September 11) affected, and continue to affect, the United States.	<p>Explanation: Increased use of personal digital devices warrant understanding about their appropriateness in varied environments and scenarios.</p> <p>List personal digital devices and create a rubric to assist peers in determining when it is appropriate to use each.</p> <p>In a language arts or social studies classroom, students can express their understanding of this objective by creating awareness campaigns to educate their peers or for children in lower grades.</p>
PO 2. Describe strategies to deal with cyber-bullying situations.	SS HS-S1C10-01: Describe current events using information from class discussions and various resources.	<p>Explanation: Cyber-bullying is unique in the ease at which bullies can retain anonymity and require additional strategies.</p> <p>Blog questions about cyber-bullying and have students discuss possible answers.</p> <p>Integrate CyberBullying curriculum (e.g., http://stopbullyingnow.hrsa.gov/kids/, Common Sense Media/CyberSmart!) into character education programs (e.g., PBIS).</p>
PO 3. Advocate and practice safe, legal, and responsible use of digital tools as defined by school board policy and procedures.	SS HS-S3C4-03: Examine the basic political, social responsibilities of citizenship (a) connections between self-interest, the common good, and the essential element of civic virtue.	<p>Explanation: All users of digital tools should demonstrate and understanding of such policies and procedures and promote that behavior by adhering to them.</p> <p>Social Studies: Write a short essay about how following school board technology policies and procedures is part of the common good and civic virtue.</p> <p>Create a multi-media awareness campaign about the school's technology policies.</p>

Arizona Educational Technology Standard Articulated by Grade Level

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 4: Demonstrate safe online communication practices regarding personal information.	SS HS-S3C4-04: Demonstrate the skills and knowledge needed to accomplish public purposes.	<p>Explanation: Academic, professional, and personal online experiences and information require vigilant practices. High school students should:</p> <ul style="list-style-type: none"> • restrict personal information such as name, gender, age, location • utilize age appropriate social networking sites. • follow all guidelines and rules as set out by the teacher managing any class-mandated online tool or site. • make careful choices regarding required personal information. <p>Several free and paid curriculum options exist to educate teenagers about digital citizenship (e.g., Common Sense Media/CyberSmart!, Microsoft's Digital Citizenship Ed, Digi Teen, NetSmartz's NSTeen, iSAFE).</p> <p>Social Studies: Discuss how to have safe online communications while being a student public issues advocate.</p>
PO 5. Analyze and compare how web advertising influences consumer choices.	<p>Health-S2C1-06: Evaluate the impact of technology on personal, family, and community health.</p> <p>M HS-S5C2-09: State the inverse, converse, and contra-positive of a given statement and state the relationship between the truth value of these statements and the original statement.</p> <p>M HS-S5C2-10. List related <i>if... then</i> statements in logical order.</p> <p>M HS-S5C2-11 . Draw a simple valid conclusion from a given <i>if...then</i> statement and a minor premise.</p> <p>Reading (10)-S3C3: Explain basic elements of argument in text and their relationship to the author's purpose and use of persuasive strategies.</p> <p>SC HS-S1C3-02: Evaluate whether investigational data support or do not support the proposed hypothesis.</p> <p>SS HS-S3C4-05: Describe the role and influence of political parties, interest groups, and mass media.</p>	<p>Explanation: Web advertising allows for interactive elements and increased customization, and anyone online is bombarded with such ads.</p> <p>Geometry: Students need to understand how to read if-then statements to fully comprehend the usefulness of geometric theorems. For example, students can analyze the truth values of if-then statements in web advertisements.</p> <ul style="list-style-type: none"> • If you buy Geico Insurance, then you will save 15% or more on your car insurance. (True) • If you save 15% or more on your car insurance, then you have Geico Insurance. (false) <p>Health: Have students investigate web advertisements featuring products they use and how they affect consumers and their health.</p> <p>Language Arts: Write a persuasive essay for or against preference in rank order for paid advertisements in search engine results.</p> <p>Language Arts: Examine advertising for faulty/logical reasoning</p>

Arizona Educational Technology Standard Articulated by Grade Level

Performance Objectives	Curriculum Connections	Explanations and Examples
	Writing (10)-S3C4-01: Write a persuasive composition.	<p>Language Arts: Examine web advertising and how it varies across web sites that have assorted targeted audiences.</p> <p>Science: Employ scientific process to test whether advertising claims are true.</p> <p>Social Studies: Analyze the role of online political ads in determining candidate success.</p>
PO 6. Advocate and exhibit legal and ethical behavior when using technology.	<p>SS HS-S3C4-01: Analyze basic individual rights and freedoms guaranteed by Amendments and laws (a) freedom of religion, speech, press, assemble, and petition in the First Amendment.</p> <p>Writing (10)-S3C6-01: Write a research report that (e) uses internal citations (f) includes a works cited, bibliography, or reference page.</p>	<p>Explanation: All users of technology should demonstrate an understanding of legal and ethical uses and promote such behavior at all times.</p> <p>Whenever using technology, high school students should (and is not limited to):</p> <ul style="list-style-type: none"> ● protect passwords ● respect the firewall ● properly document sources ● sign relevant public media release forms ● download only legal materials <p>Language: Use correct internal citations and works cited page to ethically give credit for information and avoid plagiarism.</p> <p>Social Studies: Examine the rights of free speech and privacy in online environments.</p>

Arizona Educational Technology Standard Articulated by Grade Level

Strand 5: Digital Citizenship

Concept 2: Leadership for Digital Citizenship

Demonstrate leadership for digital citizenship.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Exhibit digital citizenship by consistently leading by example and advocating social and civic responsibility to others.	SS HS-S3C4-03: Examine the basic political, social responsibilities of citizenship (a) connections between self-interest, the common good, and the essential element of civic virtue (c) obeying laws, serving on juries, paying taxes, voting, and military service (d) analyzing public issues, policy making, and evaluating candidates.	<p>Explanation: All users of digital applications should demonstrate an understanding of appropriate behavior and uses by acting responsibly at all times.</p> <p>High school students will exhibit digital citizenship when (and not limited to):</p> <ul style="list-style-type: none"> ● working collaboratively ● peer editing ● gathering and reporting data ● searching and working online. <p>Social Studies: Hold a debate about the Freedom of Information Act vs. privacy rights.</p> <p>Social Studies: Discuss the implications and uses of the Freedom of Information Act.</p>

Strand 5: Digital Citizenship

Concept 3: Impact of Technology

Develop an understanding of the cultural, historical, economic and political impact of technology on individuals and society.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Develop a possible technological solution for a contemporary issue.	<p>Reading (10)-S3C2-01: Synthesize information from multiple sources to solve a problem.</p> <p>Writing (10)-S2C1: Main idea stand out and are developed by strong support and rich details.</p>	<p>Explanation: The technology explosion is due to technology offering solutions to problems.</p> <p>Language Arts: Write a proposal paper that incorporates technology to solve a contemporary issue. Submit your proposal to an appropriate</p>

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Performance Objectives	Curriculum Connections	Explanations and Examples
	<p>Writing (10)-S3C2: The writing supports a thesis based on research, observation, and/or experience.</p> <p>Writing (10)-S3C4: The author presents an issue and expresses an opinion in order to convince an audience to agree with the opinion or to take a particular action.</p> <p>Writing (10)-S3C6: The writer locates and evaluates information about the topic or question, and then organizes, summarizes, and synthesizes the information into a finished product.</p>	<p>audience.</p> <p>Science: Investigate a current environmental issue and design possible solutions using technology.</p> <p>Social Studies: Investigate problems facing people and the government and develop solutions.</p>

Arizona Educational Technology Standard Articulated by Grade Level

Strand 6: Technology Operations and Concepts

This strand requires students to demonstrate a sound understanding of technology concepts, systems, and operations.

Concept 1: Understanding

Recognize, define and use technology term, processes, systems and applications.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Describe how the components of a system are integrated using appropriate terminology.		Explanation: Describe possible results when an organization's server (e.g., flight navigation server, electrical grid) goes down. Can be displayed on an interactive whiteboard.
PO 2. Define and apply knowledge of various technical process terms.	Reading (10)-S1C4-05: Determine the meanings, pronunciations, contextually appropriate synonyms and antonyms, replacement words and phrases, etymologies, and correct spellings of words by using resource such as general and specialized dictionaries, thesauri, glossaries, and CD-ROM and the Internet when available.	Explanation: Key vocabulary should be highlighted and used so that all are communicating in the lexicon. (www.techterms.com) List and correctly use technical processes (e.g. cut/paste, fill, save as, find and replace, print).
PO 3. Choose technology applications appropriate for the audience and task.	Writing (10)-S1C5-01: Prepare writing that follows a format appropriate for the purpose.	Explanation: When students are given the task to create in any classroom, they must be able to select any technology applications based on stipulated criteria. List possible applications for a specific purpose (e.g., programs, web 2.0 tools) and justify the selection based on the audience and task. To list information, a student can choose from a spreadsheet application or a table within a word processing application and should be able to explain which is appropriate given the specifications of the task. When creating a brochure, students justify their choice of a word processor or desktop publishing tool. When creating a website, students justify their choice of a web creation tool.

Arizona Educational Technology Standard Articulated by Grade Level

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 4. Recognize and demonstrate ergonomically safe and sound use of equipment.	<p>Business Management 4.7: Explain how ergonomics impacts the productivity of the workforce.</p> <p>Health-S3C4-01: Propose ways to reduce or prevent injuries and health problems.</p>	<p>Explanation: If technology usage is promoted, students should also be conscious of safety procedures and recommendations.</p> <p>Given different learning environments, utilize safe practices (e.g., proper posture, proper distance and hand placement, taking breaks, knowledge of safety protocols).</p> <p>Business Management: Explain how ergonomically safe and sound use of equipment impacts the productivity of the workforce.</p>
PO 5. Investigate and evaluate physical risks of using digital technology	<p>Health-S1C3-04: Propose ways to reduce or prevent injuries and health problems.</p> <p>Writing (10)-S3C2-01: Write an explanatory, multi-paragraph essay.</p>	<p>Explanation: If technology usage is promoted, students should also be conscious of any and all physical risks.</p> <p>Language Arts: Write an explanatory essay about the physical risks of using digital technology.</p> <p>Science: Explore how advancements in scientific technologies has affected ethical issues in science (e.g., stem cell research, aging).</p>

Strand 6: Technology Operations and Concepts

Concept 2: Application

Select and use applications effectively and productively.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Demonstrate speed and accuracy using appropriate data entry tools.	Business Operations 1.1: Demonstrate keyboarding skills to key new documents.	<p>Explanation: Students must be efficient and effective users of data entry tools in various forms.</p> <p>Given varied environments, data entry tools will vary (e.g., keyboard, mouse, tablet, slate, response systems/clickers, probes, calculators, microphone, speech-to-text software).</p>
PO 2. Compose a multiple section document that applies the most	SC HS-S4C5-05: Describe the levels of organization of living things from cells, through tissues, organs, organ systems, organisms,	Explanation: Having students select the media and format, conversations about the creation choices are expanded, and formatting

Arizona Educational Technology Standard Articulated by Grade Level

Performance Objectives	Curriculum Connections	Explanations and Examples
appropriate media and advanced formatting.	<p>populations, and communities to ecosystems.</p> <p>Business Management 2.8: Use desktop publishing to design and print a flier to market a product or service.</p> <p>Culinary Arts 1.10: Identify proper waste disposal methods and recycling.</p> <p>SS HS-S2C9-02: Explain the roots of terrorism.</p> <p>Writing (10)-S1C5-02: Include such techniques as principles of design and graphics, when applicable, to enhance the final product.</p>	<p>options increase with the selected program (e.g., Publisher, Word, Scribus, OpenOffice Writer).</p> <p>Biology: Pamphlet created to highlight organ functions and illnesses.</p> <p>Business Management: Design a multi-section flyer using appropriate media and advanced formatting to market a product or service.</p> <p>CTE Culinary Arts: Use a publishing program to create waste disposal methods posters to hang in the classroom.</p> <p>Language Arts or Social Studies: Create newspaper featuring text, photos, and graphics. Interactivity could be increased with hyperlinks within the document.</p> <p>Language Arts: Create a newspaper page with headlines, articles, subheadings, and graphics summarizing story plot elements and interviewing characters.</p> <p>Social Studies: Create a brochure with headings, articles, subheadings and graphics explaining the roots of terrorism.</p>
PO 3. Use spreadsheets to calculate, graph, organize, and present data in a variety of real-world settings.	<p>Business Operations Strand 4: Apply spreadsheet software to produce documents.</p> <p>Dance-S6C1-202, 302: Budget for a dance concert.</p> <p>M HS-S3C2-01: Sketch and interpret a graph that models a given context, make connections between the graph and the context, and solve maximum and minimum problems using the graph.</p> <p>Reading (10)-S1C6-03: Use graphic organizers in order to clarify the meaning of the text.</p> <p>SC HS-S5C2-02. Analyze the relationships among position, velocity, acceleration, and time:</p> <ul style="list-style-type: none"> • graphically • mathematically 	<p>Explanation: Spreadsheets (e.g., Excel, Numbers, OpenOffice Calc) organize data and can be done easily with minimal training.</p> <p>Math: Log data, represent data graphically, and present data to its appropriate audience.</p> <p>Science: Analysis of collected data through laboratory experimentation.</p>

Arizona Educational Technology Standard Articulated by Grade Level

Performance Objectives	Curriculum Connections	Explanations and Examples
	SS HS-S1C1-04: Construct graphs, tables, timelines, charts, and narratives to interpret historical data.	
PO 4. Use database features to export, organize, compile, and output data.	<p>Business Management 10.2: Utilize appropriate hardware and software to generate business communications and reports (word processing, spreadsheet, database, graphics, etc.).</p> <p>Business Operations Strand 3: Use database software to produce documents.</p> <p>Culinary Arts 7.4: Describe basic inventory procedures.</p>	<p>Explanation: With data-driven decision making, students need to be able to manipulate data using programs that increase speed, efficiency, and ease (e.g., Access, Excel, MySQL, OpenOffice Base, InspireData).</p> <p>Culinary Arts: Use a database for basic inventory procedures.</p> <p>Business Management: Use database functions to generate business communications.</p>
PO 5. Compose media for the web with interactive capabilities.	<p>Dance-S1C6-303: Identify and apply technology to produce a performance.</p> <p>Writing (10)-S1C5-01 Prepare writing that follows a format appropriate for the purpose</p> <p>Writing (10)-S1C5-02 Include such techniques as principles of design and graphics, when applicable, to enhance the final product</p>	<p>Explanation: Web 2.0 environments demand interaction and students need to be able to create for that audience.</p> <p>Language Arts: Create a web page to report research results. The addition of a forum or survey will add interaction.</p> <p>Create a database of alumni to increase school fundraising efforts.</p> <p>Some sites' sole purpose is to allow students to upload content so they can receive feedback (e.g. Voicethread) in a variety of methods.</p>
PO 6. Create, evaluate and critique web structure and content.		<p>Explanation: Because anyone can post anything online, students' analytical skills must be heightened to be able to determine legitimate information.</p> <p>Students could evaluate web sites that they created as a class assignment to fulfill a particular content objective.</p> <p>Students could evaluate web sites related to academic content to recommend for future student use.</p> <p>Students can create web sites to feature information in any content area for a variety of purposes.</p>

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Performance Objectives	Curriculum Connections	Explanations and Examples
PO 7. Use network protocols for moving files and secure web access.		<p>Explanation: Students need to be aware of protocols as determined by their district and the program/equipment developers.</p> <p>If using a flash drive/thumb/jump drive, properly remove by safely stopping the connection.</p>

Strand 6: Technology Operations and Concepts

Concept 3: Troubleshoot Systems and Processes

Define problems and investigates solutions in systems and processes.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Identify and use online help and other support to learn about features of hardware, software, and connectivity as well as to assess and resolve problems.	<p>Reading (10)-S3C1-03: Locate specific information by using organizational features in expository text.</p> <p>Reading (10)-S3C2-01: Synthesize information from multiple sources to solve a problem.</p> <p>Reading (10)-S3C2-02: Synthesize information from multiple sources to draw conclusions.</p>	<p>Explanation: Creating problem solvers means educating them about common help sources.</p> <p>Math: Provide students with the URL for the book website that correlates to the textbook used in class. Students can access this website to get help with their homework, see extra examples, access videos, etc. A scavenger hunt can be given as an assignment to teach the students the environment of the website, how to use the flash programs, and access help when they need it. As a whole class, an interactive whiteboard can be used to demonstrate the process of finding information on the website/help.</p> <p>Science: Using online programs that aid in homework, quizzes, and studying for class content (e.g., webquests, MasteringBio, MasteringChem).</p>

Strand 6: Technology Operations and Concepts

Concept 4: Transfer of Knowledge

Transfer current knowledge to learning of new technologies.

Performance Objectives	Curriculum Connections	Explanations and Examples
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Arizona Educational Technology Standard Articulated by Grade Level

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1. Transfer understanding of current technologies to new and novel learning situations.	SC HS-S3C2-02: Recognize the importance of basing arguments on a thorough understanding of the core concepts and principles of science and technology.	<p>Explanation: A critical ability is to examine the past and present to be able to better plan for and implement new and novel learning opportunities.</p> <p>Language: Students can examine the current technologies that aid in reading, comprehension, and writing. Upon evaluation, they can identify and use those that will be of service to them, and possibly, develop new technologies.</p> <p>Science: Create a product based on a discussion and research of current issues in science (e.g., bioethics, techethics).</p>