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 and evaluate information to generate new ideas, processes or products.	Social Studies 08-S5C2-01 Identify the functions and relationships among various institutions (e.g., business firms, banks, government agencies, labor unions, corporations) that make up an economic system. Science 08-S3C2-01 Propose viable methods of responding to an identified need or problem. Science 08-S1C3-04 Formulate a future investigation based on the data collected. 8.W.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and	Explanation: The student uses creative thinking and innovative processes to construct knowledge, generate new ideas, and create products. Science Examples: Students use recyclable materials data to generate ideas to help the environment. Students gather information about aluminum can usage and graph their findings in a line plot. Recyclable Materials Data Math Examples: • Investigating the relationship between angles and their measurements, students determine the angle of folds to create a pinwheel. Pinwheel - Investigating the Geometry of an Origami Octagon that Changes Shape • These links help compare the relationship between different size containers and their volume. Cubed Cans - Exploring Changing from a Cylinder to a Rectangular Prism

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Performance Objectives	Curriculum Connections	Explanations and Examples
	collaborate with others. 8.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. 8.SL.2 Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation. MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.7 Look for and make use of structure. 8.G.4	while Keeping the Volume Constant Cubes Everywhere - Using Cubes to Develop Spatial Thinking Fishing for the Best Prism - Students Use Polydrons to Build Nets and Create the Most Appealing Fish Tank Linking Length, Perimeter, Area, and Volume - Investigating Ratio, Proportion, Scale Factor, and Similarity Using Various Rectangular Shapes Popcorn, Anyone? - Exploring Volume using Differently Shaped Popcorn Containers Social Studies Examples: Analyze relationships among various banking institutions and how they affect human capital such as health, education, and training. Present findings in digital form; presentation should highlight relationships determined via analysis. Language Arts Examples: • Follow directions using online template (Inspiration) and create a sign (student created manual, pamphlet, label, etc.) Glogster • Follow directions on a web-quest in order to answer questions and solve problems.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. 8.G.9 Know the formulas for the volume of cones, cylinders and spheres and use them to solve real-world and mathematical problems.	

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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: Summarize the relationship amongst interdependent elements of a digital model or simulation.	Science 08-S1C4-02 Choose an appropriate graphic representation for collected data: • line graph • double bar graph • stem and leaf plot • histogram 8.RI.5 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept. 8.NS.1 Understand informally that every number has a decimal expansion; rational numbers have decimal expansions that terminate in 0s or eventually repeat, and conversely. 8.EE.8 Analyze and solve pairs of simultaneous	Explanation: Students will create models or digital simulations. Examples: • Robotics • Manipulatives • NLVM National Library of Virtual Manipulatives • Thinkfinity- search for simulations Thinkfinity Language Arts Examples: Illustrate a content-related concept or process using a model, simulation, or concept-mapping software. Science Examples: • Analyze and interpret data to explain correlations and results of Predator-Prey relationships, relationships between niches in biomes, between biomes and ecosystems, and finally between organisms and

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Performance Objectives	Curriculum Connections	Explanations and Examples
	linear equations. a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. 8.EE.8 Analyze and solve pairs of simultaneous linear equations. b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6. MP.1 Make sense of problems and persevere in solving them. MP.3 Construct viable arguments and critique	their environment. • Use simulations to examine and determine the effects of changing environmental variables. Charles Darwin's Survival Game • Students use this simulation to create experiments to see what changes in reactions, concentrations and temperatures can make when atoms and molecules are made to collide. Reactions and Rates Math Examples: • Students will use a simulation to explore systems of linear equations, providing them an opportunity to explore the relationship between x, y values. Students explore by creating equations that demonstrate infinite solutions, one solution, or no solution. Students will analyze graphs and provide rationale for results. • Teacher initially provides examples like these: x + 4 = y, y - 4 = x (Infinite solutions) 3x + 4y = 8, -2x + 8y = 20 (One solution) 2x + 4y = 8, 2x + 4y = 6 (No solution) • WolframAlpha - a computational knowledge search engine Algebra- System of Linear Equations

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Performance Objectives	Curriculum Connections	Explanations and Examples
	the reasoning of others.	
PO 2: Analyze system processes and outcomes using models or simulations.	Science 08-S5C2-05 Create a graph devised from measurements of moving objects and their interactions, including:• position-time graphs• velocity-time graphs 8.F.2 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.5	Explanation: Students will conduct digital simulations using 3D modeling software. Examples: A free 3-D interactive software SketchUp Science: Examples: • Use data-collection technology such as probes, handheld devices, and geographic mapping systems to gather, view, analyze, and report results for content-related problems. • Simulations of scientific process skills in investigations - manipulating variables. • Use models to help students understand the relationships of the Earth, moon and sun. • Use models to help students understand the difference between cell division with mitosis and meiosis. • Analyze the link between movement and position-time and velocity-time graph The Moving Man

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Performance Objectives	Curriculum Connections	Explanations and Examples
	Use appropriate tools strategically. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• NLVM (National Library of Virtual Manipulatives) • Science simulations, Weather simulations Math Examples: 8.F.2-Students will independently work through activities, after completing activities group students (2 to 3). In groups students will share understanding and identify important concepts to be shared with whole group. Graphing Linear Equations (Note: teachers are required to create a free account.)
PO 3: Analyze and apply understanding of how one system, digital models or simulations operates by comparing it to another system of a different type that operates in a similar manner.	Science 08-S4C4-05 Analyze the following behavioral cycles of organisms:• hibernation• migration• dormancy (plants) Social Studies 08-S2C1-07 Analyze cause and effect relationships between and among individuals and/or historical events. 8.L.4 Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.	Explanation: Students will compare two like systems using digital models. Science Examples: • By changing the environment, students predict what genetic mutations need to occur in a population of rabbits to ensure their survival. Natural Selection • Students will model three patterns of human population growth. The simulation will involve the use of specifically colored cubes to conduct the simulation. • Center for Innovation in Engineering and Science Education Real Time Data Projects National Internet Projects

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Performance Objectives	Curriculum Connections	Explanations and Examples
	a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede. recede. secede). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). 8.W.1 Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and	Social Studies Examples: • Identify the trends and patterns that forecast the collapse of a civilization. Collapse of Four Ancient Civilizations • Students will create a model comparing and contrasting economic systems such as communism and capitalism. Language Arts Examples: • Compare and contrast reading materials and show relationships between digital models. Online Interactive Software • Analyze and plot major and minor characters in literary text using digitized tools such as Inspiration. • Brain Storming and Mind Mapping Web 2.0 Tools: BubblUs LucidChart MindMeister Mindomo Gliffy Math Examples: • 8.EE.5-Students will investigate 3 different web activities. This activity will reinforce and strengthen understanding of math concept and help

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Performance Objectives	Curriculum Connections	Explanations and Examples
	organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence. using accurate. credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented. 8.EE.5 Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.	students develop ability to assess and defend choices.(Teacher adjustments for range of ability levels could include: Teacher created site evaluation form to student developed assessment.) Karappan Poochi - Algebra vs. The Cockroach Quia - Slope Jeopardy Math Warehouse - Interactive Slope HTML5 Applet

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Performance Objectives	Curriculum Connections	Explanations and Examples
	MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	

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Strand 1: Creativity and Innovation

Concept 3: Trends and Possibilities
Use technology to forecast trends and possibilities.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Identify patterns and trends to forecast possibilities from different perspectives.	Science 08-S4C2-03 Distinguish between the nature of dominant and recessive traits in humans. Science 08-S4C2-02 Explain the basic principles of heredity using the human examples of: • eye color • widow's peak • blood type Science 08-S4C4-05 PO 5. Analyze the following behavioral cycles of organisms: • hibernation • migration • dormancy (plants) Social Studies S5C2-01 Identify the functions and relationships among various institutions (e.g., business firms, banks, government agencies, labor unions, corporations) that make up an	Explanation: Students will use a variety of viewpoints to detect relationships to predict probable outcomes. Social Studies Examples: • Sales forecast • Stock market • Looking at a decision from all points of view Six Thinking Hats Science Examples: • Students will use data to graph patterns and trends with regard to migrations. • Evaluate the patterns and trends involved in genetics and inheritance of human characteristics. Language Arts Examples: • Focus on making predictions as a reading strategy that students can use before and during reading.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	economic system. 8.RL.1 Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text. 8.SP.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height. 8.SP.4 Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For	Predict What Happens Next • Learn how to understand the subject of focus by creating a mental model. Create a Mental Model of the Subject • Highlight "right-there" questions in digital documents to formulate clarifying questions. • Use digital media to connect information and events from a story, using software like Inspiration. Math Examples: • Students will use Shodor Interactive activity to make a scatter plot. Provide students with data that represents a linear relationship. From scatter plot display have students interpret the relationship by determining line of best fit, determine an approximate linear equation, identify the slope. • Students work in small groups or in pairs to construct and interpret data by creating two-way tables using Word, Keynote or other program. Have students share their two-way tables with other groups for comparison of group analysis. Teacher can provide data through survey or extend by having students create their own two question survey. Google Drive Survey Monkey

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Performance Objectives	Curriculum Connections	Explanations and Examples
	example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores? MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. 8.RI.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text. 8.RI.3 Analyze how a text makes connections among and distinctions between	

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Performance Objectives	Curriculum Connections	Explanations and Examples
	individuals, ideas, or events (e.g., through comparisons, analogies, or categories).	
PO 2: Ask questions and investigate a problem from different perspectives and formulate inferences from known facts.	Social Studies 08-S4C2-01 Identify common characteristics of contemporary and historical regions on the basis of climate, landforms, ecosystems, and culture. Social Studies 08-S4C4-07 Describe how changes in technology, transportation, communication, and resources affect the location of economic activities in places and world regions. Social Studies 08-S5C2-01 Identify the functions and relationships among various institutions (e.g., business firms, banks, government agencies, labor unions, corporations) that make up an economic system. Science 08-S1C4-03 Present analyses and conclusions in clear, concise formats. 8.SP.3 Use the equation of a linear model to solve	Explanation: Students will question and investigate a problem of a specific trend. Make an inference from a variety of points of view. (Example: What would happen if.....?) Examples: • Sales forecast • Stock market • Probability, statistics, data analysis Science Examples: Students use scientific processes to formulate and investigate questions about the natural world, analyze data and then share results and conclusions by communicating using creativity, innovation, and expression of ideas through: Newsletters, Brochures, Movies, Podcast/Vodcast, Digital storytelling, Web publishing Language Arts Examples: • The student uses creative thinking and innovative processes to construct clarifying questions. Predict What Happens Next

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Performance Objectives	Curriculum Connections	Explanations and Examples
	problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.8 Look for and express regularity in repeated reasoning. 8.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1_3	• Highlight "right-there" questions in digital documents to formulate clarifying questions. • Use digital media to connect information and events from a story or text using software like Inspiration Math Examples: From a scatter plot display have students interpret the relationship by determining line of best fit, determine an approximate linear equation, identify the slope and y-intercept. Scatter Plot

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Performance Objectives	Curriculum Connections	Explanations and Examples
	above.) 8.W.5 With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1_3 up to and including grade 8 on page 53.) 8.W.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	
PO 3: . Draw conclusions that reflect clear and logical links between the trends and patterns and the interpretations made from them.	Science 08-S1C3-01 Analyze data obtained in a scientific investigation to identify trends. Science 08-S1C3-03 Interpret data that show a variety of	Explanation: Students will draw conclusions from interpreting data and come to clear, logical conclusions. Examples: • Sales forecast

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Performance Objectives	Curriculum Connections	Explanations and Examples
	possible relationships between two variables, including: • positive relationship • negative relationship • no relationship 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-	• Stock market • Weather patterns • Migrations • Probability, statistics, data analysis. Language Arts Examples: Learn how to collect evidence that supports your thesis by using a variety of properly cited resources. Gather evidence and cite sources Science Examples: Students use scientific processes to analyze data and then draw results and conclusions about the patterns, trends and interpretations generated. Learning (research or content) can be communicated through websites, videos, etc. Math Examples: Students will examine a situation using a data collection device (motion detector) and a graphing calculator to determine if a situation displays linear behavior. (a)Students will connect a motion detector to a graphing calculator, start the data collection program, place detector so it can read the motion of a walker, mark the floor, and have one student walk away at slow and steady pace while detector collects the data.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. 8.F.3 Interpret the equation y = mx + b as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function A = s^2 giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.	(b)Students will analyze data to determine if the motion represents linear behavior. Have students experiment with other types of movement - making predictions of outcomes and make comparisons with other motive behavior.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	

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Strand 1: Creativity and Innovation

Concept 4: Original Works
Use technology to create original works in innovative ways.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Create innovative products or projects using digital tools to express original ideas.	Science 08-S1C4-04 Communicate the results and conclusion of the investigation. Social Studies 08-S1C1-04 Formulate questions that can be answered by historical study and research. 8.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1_3 above.) 8.F.4 Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change	Explanation: Students can create, innovate, and express ideas through technology programs or online resources. Examples: • Newsletters • Brochures • Movies • Podcast/Vodcast Podomatic • Digital storytelling Voice Thread Glogster StoryBird • Web publishing • Inventions Language Arts

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Performance Objectives	Curriculum Connections	Explanations and Examples
	and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Examples: Students learn how to organize information Organize Information for an Argumentative Essay Science Examples: Students can create innovative projects using technology (Google sites, photo story 3) to express conceptual learning about science. Xtranormal Math Examples: Using Excel or other spreadsheet tool or program, have students create function rules that model multiple linear relationships and display graphs for each. (a)Students will analyze graphs to determine F(x), constant rate of change, and explain relationship between the two quantities. Graphing Linear equations - How to directions
PO 2: Use digital tools to collaborate with a group to communicate original ideas, products, or projects effectively in a creative or innovative style.	Science 08-S4C2-03 Distinguish between the nature of dominant and recessive traits in humans. 8.RL.6 Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of	Explanation: Students will be able to create, innovate, and express ideas. Examples: • Use video conferencing to communicate • Debate a topic using online tools (blog, chat, message-board, etc.) • Publish information on a topic using online tools (blog, wiki, podcast,

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Performance Objectives	Curriculum Connections	Explanations and Examples
	dramatic irony) create such effects as suspense or humor. 8.RI.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text. 8.RI.9 Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation. 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding	etc.) • Collaborate on a live workspace (Windows Live, Google Docs, wiki, etc.) • Newsletters • Brochures • Movies • Podcast/Vodcast • Web publishing Language Arts Examples: • Digital storytelling- a tool for collaboratively writing short, art inspired stories. StoryBird • A great tool for group projects as it allows group members to easily log in and add information to a group project. This would work well as a way to take research information from different group members and place it in a place where all group members can work independently but still view information from all members or even the whole class. By working through the "group member" option, teachers can create the account and invite all students so they can access the site. SpringNote • Analyze media bites and create a new commercial; publish commercial

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Performance Objectives	Curriculum Connections	Explanations and Examples
	comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1_3 above.)	Science Examples: • Involve students in collaborative projects using technology to explain how Earth's geological systems result in plate movements, landforms and earthquakes. • Involve students in collaborative projects to determine principles of heredity using a family pedigree tree following particular human traits such as eye color, widow's peak or blood type.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	8.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	

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 and communicate with peers, experts, or others employing a variety of digital tools to share findings and/or publish.	8.RL.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	Explanation: Students effectively work with others and share information outside of their classroom. Examples: • This is where students can safely connect, collaborate and learn using protected email and blogs EPals

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Performance Objectives	Curriculum Connections	Explanations and Examples
	8.RI.8 Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced. 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.	• Live workspace (Google Docs, Windows Live) • Wikis • Blogs • Email • Video conferencing • Chain story (might want to explain what this is and how done in technology) • Texting • Student response clickers • Classroom presentations • Web publishing Language Arts Examples: • Have the students collaborate to explain basic elements of discourse in text and their relationship to the purpose and use of persuasive strategies. • Create digital dialogs for the purpose of online debate • Teachers can introduce active reading strategies that are social to help

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Performance Objectives	Curriculum Connections	Explanations and Examples
	d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. 8.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1_3 above.)	students better comprehend their reading. Active Reading through Self-Assessment: The Student-Made Quiz Science Examples: Invite community experts into the classroom to view digitally created projects and give advice regarding experimental design or content related misconceptions.

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Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2: Explain and demonstrate features, conventions, voice, and etiquette of interactive digital environments to communicate with an appropriate audience.	Science 08-S2C1-04 Evaluate career opportunities related to life and physical sciences. 8.SL.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. 8.SL.5 Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest. 8.RL.6 Analyze how differences in the points of view of the characters and the audience or reader (e.g., created through the use of dramatic irony) create such effects as suspense or humor. 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of	Explanation: The student will demonstrate an understanding of "Knowing your audience" in a digital environment, and communicate effectively using voice with the audience member. Examples: • Students use academic language and conventions when working within an academic digital environment (example: a classroom wiki or blog). Students use more casual language and more relaxed conventions when communicating on a social networking site (example: Facebook). • When texting or emailing a friend, a student may use emotions or "internet slang" (ex: LOL). However, in all settings this would not be appropriate. Language Arts Examples: • When online, the student should be able to determine the intended effect of persuasive strategies and propaganda techniques (e.g., bandwagon, peer pressure, repetition, testimonial, transfer, loaded words) in order to make informed, appropriate choices. • Digital Literacy and Citizenship Lesson Title, "Responsible Text Messaging Tips" • Scientific Career Day - Invite experts into the classroom, or challenge experts to use technology students are familiar with to present how technology is used in their career as well as to demonstrate features, convention, voice and etiquette.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)"	

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Performance Objectives	Curriculum Connections	Explanations and Examples
	8.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1_3 above.) 8.W.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others. 8.RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts. 8.RI.5 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.	

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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.	Science 08-S4C2-03 Distinguish between the nature of dominant and recessive traits in humans. 8.RI.6 Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints. 8.RL.9 Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new. 8.SP.4 Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table	Explanation: Student will work with others outside of their classroom to produce a product or solve problems. Examples: • Live workspace (Google Docs, Windows Live) • Wikis • Blogs • Email • Video conferencing • Podcast/ Vodcast • Online Polling Language Arts Examples: • Work with literature circle/group to analyze literary characters - create online version of similar story. • Rewrite the ending of an existing story and produce digitally.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores? MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. 8.W.4 Produce clear and coherent writing in	StoryBird Science Examples: • Design an interactive, collaborative project with the goal of students examining possible solutions to address environmental risks in biological, chemical or geological systems. • This site offers several links to ask an expert sites in the area of Science. Ask An Expert • Numerous sites in all content areas. Ref Desk • There are numerous poll websites; we offer this as one possible resource. Poll Everywhere Math Examples: • Students work in small groups or in pairs to construct and interpret data by creating two-way tables using Word, Keynote or other program. (a)Have students share their two-way tables with other groups for comparison of group analysis. (b)Teacher can provide data through survey or extend by having students create their own two question survey using. Collaborative Online Projects Google Drive Survey Monkey

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Performance Objectives	Curriculum Connections	Explanations and Examples
	which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1_3 above.) 8.W.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.	

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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: Independently locate and interact with teacher approved global communities.	Science 08-S1C1-01 Formulate questions based on observations that lead to the development of a hypothesis. 8.RL.5 Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style. 8.W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research. a. Apply grade 8 Reading standards to literature (e.g., _Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible. including describing how the material is rendered new_).	Explanation: Students will participate in information exchange with students from your own classroom, your own school, another area, or another culture. Example: • Video conferencing • Social networking sites • Wikis • Blogs • Email Language Arts Examples: • Using above examples engage in multicultural “storytelling” across continents. • Create virtual “multicultural school house” environment and pair-share reading variety of genres. Science

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Performance Objectives	Curriculum Connections	Explanations and Examples
	b. Apply grade 8 Reading standards to literary nonfiction (e.g., _Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced_).	Examples: • Participate in a data collection program of students, teachers and scientists working together to study and understand the global environment while also participating in the identification of individual, cultural and technological contributions to scientific knowledge. GLOBE • The Center of Engineering and Science Education Collaborative Online Projects

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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: Predict the most effective keywords and phrases for use in information searches.	Science 08-S4C4-04 Compare the symbiotic and competitive relationships in organisms within an ecosystem (e.g., lichen, mistletoe/tree, clownfish/sea anemone, native/non-native species). 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant,	Explanation: Students will brainstorm keywords for a search and determine the most appropriate keywords for obtaining the best results. Science Examples: • Look up information in order to understand the carrying capacity and limiting factors of living organisms within the students' community/environment. • Digital Literacy and Citizenship Lesson Title "Strategic Searching" (grades 6-8)

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Performance Objectives	Curriculum Connections	Explanations and Examples
	well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	
PO 2: Determine which	Social Studies 08-S2C1-02	Explanation: Students will compare search results to determine which

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Performance Objectives	Curriculum Connections	Explanations and Examples
information source will provide the desired data.	Interpret historical data displayed in graphs, tables, and charts. Science 08-S4C4-06 Describe the following factors that allow for the survival of living organisms:• protective coloration• beak design• seed dispersal• pollination 8.RL.10 By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6_8 text complexity band independently and proficiently.	information source provides the ideal results for the situation. Examples: • Looking at various search results, deciding which website is valid to obtain information from. • Finding factual information from multiple sites to ensure validity. • Digital Literacy and Citizenship Lesson Title "Identifying High-Quality Sites" (grades 6-8) Lesson Title "Strategic Searching" (grades 6-8) Language Arts Examples: • Learn how to make predictions by previewing the title, pictures, and text on the book cover. Preview Text to Make Predictions • Practice search queries to determine broad and narrow ranges of information. Science Examples: • Develop criteria as a class to determine which internet source has the most desired data about factors related to population growth such as, invasion of non-invasive species in community. • Develop criteria in teams to determine and share with class the Internet source(s) that have the most verifiable data about factors that allow for the survival of living organisms such as, protective coloration,

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Performance Objectives	Curriculum Connections	Explanations and Examples
		beak design, seed dispersal and pollination.

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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.	Social Studies 08-S2C1-02 Interpret historical data displayed in graphs, tables, and charts. 8.RI.10 By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6_8 text complexity band independently and proficiently. 8.RL.10 By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6_8 text complexity band independently and proficiently.	Explanation: Students are able to find information with advanced search strategies. Example: • Conduct a search using Boolean logic, such as putting specific words in quotation marks to find the exact phrases in search results. Search Wizard Practice Search Strategies • Tutorials and resources for Boolean logic Internet Tutorials for Boolean Boolean Search • Digital Literacy and Citizenship Lesson Title "Identifying High-Quality Sites" (grades 6-8) Language Arts Examples: • Practice search queries to determine broad and narrow ranges of information. • How to find information. Finding Information for Your Research Paper

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Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2: Evaluate and use authoritative primary and/or secondary sources.	Social Studies 08-S1C1-06 Determine the credibility and bias of primary and secondary sources. Social Studies 08-S1C1-05 Describe the relationship between a primary source document and a secondary source document. 8.RI.5 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept. 8.RI.9 Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation. 8.RI.10 By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6_8 text complexity band independently and proficiently. 8.W.7 Conduct short research projects to answer	Explanation: Students will use authoritative primary or secondary sources. Examples: • Primary Sources EyeWitness to History • Government sites Library of Congress Dept of Health, DMV, Police Department NASA • Primary and Secondary Sources PBS American Experience Language Arts Examples: • Have the student evaluate and use authoritative sources in materials. • Use the Internet to show a variety of expository text including examples of fact vs. opinion or biases. • Use the internet to distinguish between primary and secondary sources. • Use advanced searches to locate information about relevant content studied and identify and evaluate two primary and two secondary sources.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration. 8.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	
PO 3: Evaluate between fact and opinion, bias, inaccurate and misleading information by consulting multiple sources.	Science 08-S1C3-05 Explain how evidence supports the validity and reliability of a conclusion. Social Studies 08-S1C1-06 Determine the credibility and bias of primary and secondary sources. 8.RI.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective	Explanation: Students learn that the Web is full of both factual and inaccurate content, so they must carefully consult multiple sources to determine validity. Example: • Research papers • Presentations or experimentation • Digital Literacy and Citizenship Lesson Title "Identifying High-Quality Sites"(grades 6-8) Language Arts

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Performance Objectives	Curriculum Connections	Explanations and Examples
	summary of the text. 8.RI.6 Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints. 8.RI.9 Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation. 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.	Example: • Use the Internet to show a variety of expository text including examples of fact vs. opinion or biases. • Find an internet site that shows bias regarding the relationship between the position of the sun, moon and Earth such as the 'Flat Earth Society' or refuting evidence of changes in environment such as global warming. • Find an internet site that shows bias regarding the evidence that characteristics of organisms change over time. • Analyze websites for evidence supporting the validity and reliability of a scientific conclusion.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	

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Performance Objectives	Curriculum Connections	Explanations and Examples
PO 4: Synthesize research information to create new understanding.	Social Studies 08-S1C1-07 Analyze cause and effect relationships between and among individuals and/or historical events. 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about	Explanation: Students will synthesize information and come to a new understanding. Examples: • Research papers • Presentations or experimentation Language Arts Examples: Thinkfinity has many ideas on conducting small research projects. Research to Build and Present Knowledge Math Examples: Students will view instructional videos to learn how to create a scatter plot using a spreadsheet program. Then transfer their understanding to make their own scatter plots. YouTube Instructional Video Excel 2010 Scatter Diagram with Trendline - JJMcGrory YouTube Instructional Video How to make a basic scatter plot in Excel 2007 - COCCmath YouTube Instructional Video Scatter Plots in Numbers.mov - nuuploads

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Performance Objectives	Curriculum Connections	Explanations and Examples
	or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration. 8.SP.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. MP.4 Model with mathematics.	

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Performance Objectives	Curriculum Connections	Explanations and Examples
	MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	
PO 5: Apply ethical use of information and media by respecting copyrights, intellectual property rights, using information and media responsibly, and citing resources appropriately.	Social Studies 08-S3C4-03 Discuss the character traits (e.g., respect, responsibility, fairness, involvement) that are important to the preservation and improvement of constitutional democracy in the United States 8.RI.3 Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories). 8.W.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues	Explanation: Students will be able to research information and media ethically and not plagiarize. In particular, Middle school students need to learn how to use music legally. Examples: • Digital Literacy and Citizenship Lesson Title "How to Cite a Site" (grades 3-5) • Online citation generator Citation Machine EasyBib • Resource on Fair Use: Copyright Chaos Language Arts Examples: • Utilize online citation tools for all research and presentation to learn

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Performance Objectives	Curriculum Connections	Explanations and Examples
	of exploration. 8.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	about proper citing of resources. • Use online resources to teach copyright infringements, permissions

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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 topic or issue using digital tools and resources.	Social Studies 08-S2C1-01 Construct charts, graphs, and narratives using historical data. Science 08-S1C3-08 Formulate new questions based on the results of a previous investigation. Science 08-S1C1-02 Use appropriate research information, not limited to a single source, to use in the development of a testable hypothesis. 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing	Explanation: Students will be able to create an essential question using digital tools or resources. Examples: Class wants to learn more about homelessness, after discussion class comes up with essential question; "Why are some people homeless?" Language Arts Examples: • In this lesson the student will learn how to select additional texts on a topic by asking questions about a subject. Select Texts for Additional Reading • An online note taking application. Evernote • Highlight factual information in digital documents to formulate clarifying questions. • Use digital media to connect information and events from a story or text

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Performance Objectives	Curriculum Connections	Explanations and Examples
	what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.7 Conduct short research projects to answer	Science Examples: Write a researchable question answered through the use of digital tools (such as Google Docs - Forms) and analyze results using spreadsheets, tables and graphs.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration. 7.RI.10 By the end of the year, read and comprehend literary nonfiction in the grades 6_8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	

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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, conduct and manage research using appropriate digital resources to develop solutions for a question.	Social Studies 08-S3C4-03 Describe the importance of citizens being actively involved in the democratic process (i.e., voting, student government, involvement in political decision making, analyzing issues, petitioning public officials). Social Studies 08-S5C1-01 Explain how limited resources and unlimited human wants cause people to choose some things and give up others. Science 08-S1C3-04 Formulate a future investigation based on the data collected. Science 08-S1C1-02 Use appropriate research information, not limited to a single source, to use in the development of a testable hypothesis. 8.W.2	Explanation: Students create essential question, research that essential question, and develop solutions using digital tools and resources. Social Studies Examples: • Class wants to learn more about homelessness, after discussion class comes up with essential question; "Why are some people homeless?" • Students research the issue of homelessness, determine possible solutions, and find local agencies that are working for solutions. • Students are studying any topic in Social Studies class either modern or historical, which they find credible information from online resource. Language Arts Examples: • Use online organization models to collect data, facts, resources, etc. • An online note taking application. Evernote • An interactive map tool Persuasion Map Tool

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Performance Objectives	Curriculum Connections	Explanations and Examples
	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and	Science Examples: Students plan, conduct and manage research to develop solutions that answer a question about people's understanding of a local environmental concern: such as recycling, invasive species eradication, or wildlife corridor issues.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	supports the information or explanation presented. (8.W.2)" 8.W.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration. 8.RI.2 Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.	
PO 2: Present defendable solutions and make decisions from multiple perspectives using collected resources and data.	Science 08-S1C3-02 Form a logical argument about a correlation between variables or sequence of events (e.g., construct a cause-and-effect chain that explains a sequence of events). Social Studies 08-S3C4-03 Describe the importance of citizens being	Explanation: Students create essential question, research multiple perspectives, develop a solution, present to class their specific idea. Social Studies Examples: • Class wants to learn more about homelessness, after discussion class comes up with essential question; “Why are some people homeless?” • Students research the issue of homelessness, exploring multiple

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Performance Objectives	Curriculum Connections	Explanations and Examples
	actively involved in the democratic process (i.e., voting, student government, involvement in political decision making, analyzing issues, petitioning public officials). 8.W.1 Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant evidence. using accurate. credible sources and demonstrating an understanding of the topic or text. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.	perspectives on the issue. Students determine possible solutions, exploring various agencies that are working for solutions. • Students develop a specific solution and present this to the class or peers or global community, depending on the situation. Science Examples: • Students present and make decisions based on researching people's understanding of a local environmental concern: such as recycling, invasive species eradication, or wildlife corridor issues. • Digital Literacy and Citizenship Lesson Title "Identifying High-Quality Sites" (grades 6-8) Language Arts Examples: In this lesson the student will learn to write an introductory paragraph to define his claim by arguing why this issue is important. An Introductory Paragraph that Addresses the Opposing Views

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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: Assess situations in which it is appropriate and safe to use a personal digital device in the home, school, community, and in the work place.	Social Studies 08-S3C4-02 Discuss the character traits (e.g., respect, responsibility, fairness, involvement) that are important to the preservation and improvement of constitutional democracy in the United States 8.RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts. 8.RI.8 Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.	Explanation: Students will know how, when and where a personal digital device (Cell phone, PDA, iPod, etc.) should be used. Examples: Students create situations and explain how, when, and where it would be appropriate or inappropriate to use a personal digital device. Language Arts Examples: When online, the student can determine the intended effect of persuasive strategies and propaganda techniques (e.g., bandwagon, peer pressure, repetition, testimonial, transfer, loaded words) in order to make informed, appropriate choices. Science Examples: Students will extend the way they think of using common technological tools by using phones, iPods and laptops in ways that don't detract from, but add to engagement in classroom activities.

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Performance Objectives	Curriculum Connections	Explanations and Examples
PO 2: Describe strategies to deal with cyber-bullying situations.	Social Studies 08-S3C4-02 Discuss the character traits (e.g., respect, responsibility, fairness, involvement) that are important to the preservation and improvement of constitutional democracy in the United States 8.W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Explanation: Students explore what cyberbullying is and how best to deal with it. Examples: • Stop Bullying • Local law enforcement agencies • School policies • Cyberbullying Video • Digital Literacy and Citizenship Lesson Title "Cyberbullying: Be Upstanding" (grades 6-8) Lesson Title "Cyberbullying: Reality of Digital Drama (grades 6-8) Lesson Title "Cyberbullying: Crossing the Line" (grades 6-8) Language Arts Examples: • The student will write about the character trait responsibility as to it's importance to the appropriate and safe use of personal digital devices in the home school, community. This can be done in a single sitting. • Understand the negative impact of inappropriate technology use, including, but not limited to, computer online bullying and harassment, hacking, computer piracy, intentional virus setting, and invasion of privacy.
PO 3: . Articulate and	Social Studies 08-S3C4-02	Explanation: Students list or state and follow all rules decided by the school.

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Performance Objectives	Curriculum Connections	Explanations and Examples
practice the school and district rules governing the use of digital tools as defined by school board policy and procedures.	Discuss the character traits (e.g., respect, responsibility, fairness, involvement) that are important to the preservation and improvement of constitutional democracy in the United States 8.RI.5 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept. 8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or	Examples: • Review and sign acceptable use policy • Digital Literacy and Citizenship Lesson Title "With Power Comes Responsibility" (grades 3-5) Language Arts Examples: • After reading and reviewing the district acceptable use policy the students will type up a summary using a word-processing program and save in a named file. • Understand copyright ownership laws/issues including current laws, fair use guidelines, creative commons, open source, and public domain.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	
PO 4: Demonstrate safe online communication practices regarding personal information.	Social Studies 08-S3C4-02 Discuss the character traits (e.g., respect, responsibility, fairness, involvement) that are important to the preservation and	Explanation: Students describe appropriate information to share online, knowing they should never share private information to a person they have met in cyberspace.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	improvement of constitutional democracy in the United States 8.W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Examples: • Never give home address • Don't give personal information online • Ask parent or guardian for permission to talk in a chat room • Digital Literacy and Citizenship Lesson Title "Private and Personal Information" (grades 3-5) lesson Title "Talking Safely Online" (grades 3-5) Lesson Title "Staying Safe and Smart on Line" • Students can create printed social networking or magazine/newspaper profiles for themselves, peers or family members whom they have interviewed, or fictional characters from books they have read. Profile Publisher • How hard is it to track kids online? Tracking Teresa- Video Language Arts Examples: Students will type a personal response to the Tracking Teresa video.
PO 5: Analyze and compare various aspects of e-commerce.	8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the	Explanation: Students explore various e-commerce websites to analyze and compare various aspects of e-commerce. Examples:

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Performance Objectives	Curriculum Connections	Explanations and Examples
	selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)"	• Finding a product online and comparing prices, considering shipping charges. • Designing a dream house and shopping for furnishings online. • Buy a car for a cross-country trip that is economical and fuel-efficient. • This lesson introduces students to the online marketing techniques used by marketers to target children on the Internet. Online Marketing to Kids: Strategies and Techniques • Students learn decision-making skills that will help them become better consumers. How e-commerce influences consumer choice

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Performance Objectives	Curriculum Connections	Explanations and Examples
	8.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1_3 above.)	
PO 6: Exhibit legal and ethical behavior when using technology.	8.RI.3 Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories). 8.RI.5 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.	Explanation: Students learn guidelines to show responsible use of technology including ethics in file sharing, email etiquette, and copyright laws. Examples: • Review fair use guidelines • This lesson helps students understand copyright, fair use, and plagiarism by focusing on why students should avoid plagiarism and exploring strategies that respect copyright and fair use. Understand the difference between legal (copyright) infringement and ethical (plagiarism) behavior Language Arts Examples: • Use Internet resources to demonstrate legal and ethical behavior. • Describe when and where you can use copyrighted music and how to find public domain music.

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Performance Objectives	Curriculum Connections	Explanations and Examples
		• Use media to demonstrate viewpoints and gather points for discussions. • Digital Literacy and Citizenship Lesson Title "Safe Online Talk" (grades 6-8)

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Strand 5: Digital Citizenship

Concept 2: Leadership for Digital Citizenship
Demonstrate leadership for digital citizenship.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Promote digital citizenship by consistently leading by example and advocating social and civic responsibility to others.	8.RI.3 Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories). 8.RI.5 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept. 8.W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Explanation: The student practices safe and appropriate online behavior, being socially and civilly responsible demonstrating by leading by example. Examples: • Actively engaging in online communities with civic competence • Peer mentoring on appropriate digital citizenship • Students demonstrate leadership and self-monitoring. Language Arts Example: Students will create an internet safety presentation for students at a lower grade level. They can create a MS Power Point or type up a poster with safety tips. Science Examples: Promote digital citizenship by incorporating computational devices such as timers, temperature, pH, motion sensor, force sensor, etc. probes in the science classroom by using the devices appropriately.

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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: Analyze current economic, environmental, health, political, scientific, or social problems that have technological solutions and propose potential solutions for the problems.	Science 08-S3C2-01 Propose viable methods of responding to an identified need or problem. Social Studies 08-S1C1-07 Analyze cause and effect relationships between and among individuals and/or historical events. 8.RI.3 Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories). 8.W.3 Write narratives to develop real or imagined experiences or events using effective technique. relevant descriptive details, and well-structured event sequences. a. Engage and orient the reader by establishing a context and point of view and introducing a narrator	Explanation: Students will examine a new technology and investigate and evaluate the advantages and problems of using this technology for the short and long term. Social Studies Examples: Students can study the impact of E-waste on environment and come up with solutions for alternative methods of recycling. Starting with where E-Waste from America is usually sent, examine how other countries recycle it and what can the student do to come up with a solution locally with E-Waste. Language Arts Examples: • The student will demonstrate they can synthesize multiple elements of technology and use that information for the purpose of large scale problem solving. • Online research and comparative data collection. • Use of simulation tools to look at outcomes. Science Examples:

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Performance Objectives	Curriculum Connections	Explanations and Examples
	and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques, such as dialogue. pacing. description, and reflection, to develop experiences, events, and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence. signal shifts from one time frame or setting to another, and show the relationships among experiences and events. d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. e. Provide a conclusion that follows from and reflects on the narrated experiences or events. 8.W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research. b. Apply grade 8 Reading standards to	• Students will identify a technology related to grade 7 content, which could lead to undesirable results. • Students can compare risks and benefits to technological advances such as, radiation treatments, genetic engineering, transgenic plants and airbags.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	literary nonfiction (e.g., _Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced_).	

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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: Explain how systems are integrated detailing input, output, and network devices.	8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.	Explanation: Students describe and use network terms such as WAN, LAN, cloud, wireless, bandwidth, broadband, etc. Examples: Setting up a file sharing folder from one system to another Language Arts Examples: Identify and use terminology relevant to technological use such as WAN, LAN, cloud, wireless, bandwidth, broadband, etc.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	
PO 2: Define and apply knowledge of various technical process terms.	8.L.4 Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies. a. Use context (e.g., the overall	Explanation: Students demonstrate knowledge of how to download, copy, paste, etc. Examples: Students create a document, spreadsheet and presentation, saving it into a specific folder that they create.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede. recede. secede). c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). 8.RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to	Language Arts Examples: • Identify and use terminology relevant to technological use (copy, paste, file, download, etc.) • Students will create an online crossword puzzle with key technology terminology.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	other texts.	
PO 3: Choose technology applications appropriate for the audience and task.	8.RL.7 Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors. 8.RL.9 Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new. 8.SP.1 Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. MP.5	Explanation: Students will create presentations, spreadsheets or documents for specific audience and task. Examples: Students think about all of the applications (Word processing, PowerPoint, Moviemaker, iMovie, Spreadsheet, Publisher, etc.) and online tools (blog, wiki, podcast, etc.) they are familiar with and determine the most effective application for the audience and task. Language Arts Examples: • Have the student use strategies to demonstrate technological comprehension and use for the right application. • Have students view a film version of a play read in class. As students watch, have them use some kind of graphic organizer to take notes. Once notes have been taken, have students record their notes using the appropriate tool. Math Examples: • Have students create scatter plots using Excel or another spreadsheet program. • Teacher guided practice of what to use when data collection [excel, writing (word processing, compare/contrast, diagramming)].

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Performance Objectives	Curriculum Connections	Explanations and Examples
	Use appropriate tools strategically. MP.7 Look for and make use of structure.	
PO 4: Recognize and demonstrate ergonomically safe and sound use of equipment.		Explanation: Students demonstrate proper keyboarding use by using a QWERTY keyboard and will sit straight, with feet flat and hands on home row position. Examples: When students are creating a document, be sure that their fingers are on home row position ASDF and JKL.
PO 5: Analyze and evaluate physical risks of using digital technology.	8.SL.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. 8.W.1 Write arguments to support claims with clear reasons and relevant evidence. a. Introduce claim(s), acknowledge and distinguish the claim(s) from	Explanation: Students will identify and analyze physical risks of using digital technology. Language Arts Examples: • Research the pros and cons of cell phone use. After researching, students will write an essay arguing their thesis. • Students will research a topic that has pros and cons. Students will use the information to prepare for a class debate.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	alternate or opposing claims, and organize the reasons and evidence logically.	

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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 with appropriate data entry tools with at least 30 wpm and 80% accuracy.		Explanation: Students will take an online or program based keyboarding test that measures Words Per Minute (WPM) with mistakes per minute measured. Examples: Typing programs such as Type To Learn 3 and Typing Master may also be used to improve and test typing speed/accuracy. Power Typing
PO 2: Compose a multiple section document using advanced formatting.	8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.	Explanation: Students compose a document such as a friendly letter or business letter with proper advanced formatting. Language Arts Examples: • Students write a friendly letter to a parent, teacher or friend and follow proper editing and formatting techniques. • Adding pictures with wrap text feature for formatting is an advanced formatting technique. • Using features from the tool bars such as standard and formatting features that allow font type, page alignment and spacing are important features for formatting. Including tables, charts and graphs also exhibits

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Performance Objectives	Curriculum Connections	Explanations and Examples
	b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1_3 above.) 8.W.6 Use technology, including the Internet, to	advanced formatting techniques. • Demonstrate digital typography standards such as page layout, font formatting, paragraph formatting, and list attributes.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others.	
PO 3: Apply formatting features while using spreadsheet programs to customize tables, charts, and graphs.	8.EE.8 Analyze and solve pairs of simultaneous linear equations. a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. 8.EE.8 Analyze and solve pairs of simultaneous linear equations. b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y	Explanation: Students use spreadsheet program and apply formatting features to customize tables, charts, and graphs. Math Examples: • Students will use a spreadsheet program (i.e. Excel, Numbers) to solve simultaneous linear equations. Use formulas to solve for two equations and convert table values into a graph demonstrating their points of intersection. • Claris Works is often used for its word processing features but it is a wonderful tool to use for making graphs. The following steps can be used with students to have them create graphs of linear functions. A Math Forum Web Unit - Graphing Linear equations - How to directions • Have students use multiple sets of data to create scatter plots. Include data sets that have little to no relationship between X, Y-axis. Students will look for and explain linear relationships.

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Performance Objectives	Curriculum Connections	Explanations and Examples
	cannot simultaneously be 5 and 6. 8.SP.2 Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	
PO 4: Create a simple database for a content area.	Science 08-S2C2-01 Apply the following scientific processes to other problem solving or decision making situations: • observing • questioning • communicating	Explanation: Students will use database software to organize large amounts of data by sorting the data and using filters. Examples: • Students should be able to define and understand parts of a database including: Field

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Performance Objectives	Curriculum Connections	Explanations and Examples
	• comparing • measuring • classifying 8.RI.3 Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories). 8.RI.5 Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.	Record Entry Ascending Order Descending Order Filter Charts • Using a database management system such as Access or online database like Ebsco or CultureGrams students can organize and view data in many different ways. Language Arts Examples: The student can demonstrate effective file management strategies such as naming conventions, location, backup, hierarchy, folder structure, and file conversion.
PO 5: Create and edit visual and audio material to generate a stand-alone multimedia product.	8.SL.5 Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest. 8.W.6 Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and	Explanation: Students can use multimedia programs available locally or web based to create innovative movies or podcasts and integrate audio, video and pictures. Examples: • GarageBand-Podcast/Vodcast • Audacity • iMovie

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Performance Objectives	Curriculum Connections	Explanations and Examples
	collaborate with others. 8.W.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	• iPhoto • Movie Maker • Voice Thread Language Arts Examples: • After reading a short story or poem, create a visual representation that demonstrates your understanding/interpretation of the tone and mood. • After researching a famous author and a famous playwright or speaker, create a multimedia presentation in order to share your findings in answer to your guiding research question.
PO 6: . Identify criteria for evaluating technical and design qualities of a web site and then create web-based content from the identified criteria.	8.RI.7 Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea. 8.W.8 Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and	Explanation: Students can evaluate other websites, wikis or blogs and critique the qualities of the sites. Using a free online hosting site for a blog or wiki, the students can then create their own Wiki or Blog. Examples: • Blogger • Wikispaces • WordPress Language Arts Examples: • Students will gather Web-based resources and determine criteria for

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Performance Objectives	Curriculum Connections	Explanations and Examples
	following a standard format for citation.	characteristics of effective Web resources. • Students write out evaluations of websites that are shared with their class. • Students determine the pros and cons of using different mediums for presenting findings to various audiences.
PO 7: Identify and use network protocols for moving files and secure web access.		Explanation: Students will demonstrate proper file storage capabilities using a removable storage device and disconnect it properly by safely stopping the connection. Examples: • Students list and demonstrate how to move files on the Internet using network protocols such as ftp, secure network (https), etc. • Flash Drive/Thumb Drive saving/removing (some Districts ban these because of virus issues.) • Save to an External Hard Drive. • Save to local server. • The student can move and retrieve files and folder created in class for projects.

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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: Generate and apply solutions to troubleshoot hardware and software issues and problems.	8.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. d. Use precise language and domain-	Explanation: Students learn how to troubleshoot computer problems. Examples: • Using recycled desktop computers, have students disassemble and reassemble computers into working order. Loading an operating system and drivers for the system are typical software solutions for errors. • Example problems where troubleshooting is needed: File management problem (lost a file or document) Receiving error or information messages Connectivity problems (Internet or network) Printing problem (document not printing) Language Arts Examples: • The student can read instructional manuals for the purpose of troubleshooting technological problems. • Use technology manuals of various tools (camera, iPad, computer, software) to determine the order of sequence to solve issues. • Understand troubleshooting techniques such as accessing the command prompt, restarting systems, checking power issues, resolving software compatibility, verifying network connectivity, and modifying display

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Performance Objectives	Curriculum Connections	Explanations and Examples
	specific vocabulary to inform about or explain the topic. e. Establish and maintain a formal style. f. Provide a concluding statement or section that follows from and supports the information or explanation presented. (8.W.2)" 8.RI.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts. 8.RI.10 By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6_8 text complexity band independently and proficiently.	properties.

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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
PO 1: Transfer understanding of current technologies to new and novel learning situations.	8.RL.2 Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text. 8.RL.3 Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision. 8.RL.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	*Explanation: Students use abilities and knowledge from one program and display competence in knowledge and use it with new technologies.* *Examples:* • *Students who can use drawing tools in a document program (Microsoft Word), take this knowledge and expand it when using a new 3-D imaging program (Google Sketch-up).* • *Students must apply basic operations of hardware and software processes to a new Operating System such as Linux and find version to run on specific computer while using Open Source Software to load onto the new OS.* *Language Arts* *Examples:* • *The student can create new materials from literary text.* • *Read literary materials and create an online version for student with limited English proficiency; include activities.* • *Recreate the characters in a novel using graphics generators and put the characters in a new setting to tell the same story.*

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