### **GRADE 3**

## **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: Evaluate information to generate ideas and processes.	Writing:03-S1C1-01 Generate ideas through a variety of activities (e.g., brainstorming, graphic organizers, drawing, writer's notebook, group discussion, printed material).	Explanation: Students will investigate a topic (e.g. life cycles of plants, ecosystems, light, sound, rocks/minerals, global exploration, national symbols and monuments) and generate questions using a variety of online tools.  Example: Students will share their ideas using concept mapping or digital creativity tools.

## **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.

<b>Performance Objectives</b>	Curriculum Connections	Explanations and Examples
PO 1: Recognize and explain relevant interdependent elements of a digital model or simulation.	Writing 03-S2C2-01 Organize content in a selected format. (e.g., <b>friendly letter</b> , <b>narrative</b> , expository text).	Explanation: Use interactive resources to practice skills and explore new concepts.  Example:  • Language Arts: Use the Letter Generator or Post Card Creator found in Thinkfinity to practice a friendly letter.
PO 2: Identify and describe how aspects of a situation change using models or simulations.	SC 03-S1C2-03 Conduct simple investigations (e.g., related to plant life cycles, changing the pitch of a sound, properties of rocks) in life, physical, and Earth and space sciences.	Explanation: Use models or simulations to demonstrate change depending on situations.  Example: In science, students will utilize NCTM's "Sound Wave" simulation activity to understand sound. Students will be able to hear

Performance Objectives	Curriculum Connections	Explanations and Examples
	SC 03-S5C3-03 Demonstrate that vibrating objects produce sound. SC 03-S5C3-04	and see the sound wave while adjusting pitch, tone, frequency and volume. (Search: Illuminations Sound Wave and/or Do You Hear What I Hear?)
PO 3: Transfer understanding of how one system operates by comparing it to another system.	SC 03-S4C2-01 Compare life cycles of various plants (e.g., conifers, flowering plants, ferns).	Explanation: Compare and contrast systems to identify similarities and differences.  Example: Science: Utilizing online website resources compare life cycles of various plants.

# **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: Examine patterns and identify trends to generate questions.	SC 03-S1C2-05 Record data in an organized and appropriate format (e.g., t-chart, table, list, written log). SC 03-S1C3-01 SC 03-S1C3-02 SC 03-S4C3-05	Explanation: Analyze data patterns to identify trends using a digital tool such as a spreadsheet.  Example: Students will conduct a plant experiment with variables like range of temperature, quantity of light, and soil composition and record the data in a spreadsheet and examine for patterns and trends.

# **Strand 1: Creativity and Innovation**

# **Concept 4: Original Works**

Use technology to create original works in innovative ways.

<b>Performance Objectives</b>	Curriculum Connections	Explanations and Examples
PO 1: Use digital creativity tools to create original works.	SS 03-S2C1-04 Retell stories to describe past events,	Explanation: Students will create original works utilizing Digital Creativity Tools such as:  • digital photography • podcasts • audio clips • brochures • postcards • digital storytelling • drawing programs  Example:  • Students will study people and events from the past and retell stories, to describe past events, people, and places, by creating a podcast, brochure, or digital story.
PO 2: Use digital collaborative tools to analyze information to produce original works.	SS 03-S1C7-01 Discuss reasons (e.g., famine, political discord, religious persecution, economic opportunity) why people left their home country to start a new life in the United States	Explanation: Students will work together and share ideas in a digital environment utilizing Digital Collaborative Tools such as:  • Wallwisher  • Voice Thread  • Wikis  • Blogs  • Email  • Google Apps  •  Example:  • Working in collaborative groups student will research why people left their home country to start a new life in the United

Performance Objectives	<b>Curriculum Connections</b>	Explanations and Examples
		States. Using a wiki or goggle docs students will record the results of the research then using that information create a final product, such as a podcast, poster or digital story.

#### **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: Communicate digitally with others by selecting and using a variety of appropriate communication tools.	Writing 03-S1C5-02 Write sentences that flow together and sound natural when read aloud.	Explanation: Communicate with others using digital interactions such as:  • blogs • wikis • video conferencing • email • webpage  Examples: • Participate with online projects • Interact with pen pals using email • Solve a math problem and post online for feedback or comments • Share book reviews and make book recommendations on a classroom wiki, blog, or web page.
PO 2: Identify and demonstrate safe and appropriate behavior when using digital environments to communicate with others.	SS 03-S3C4-02 Identify traits of character (e.g., honesty, courage, cooperation, respect, trustworthiness, responsibility, citizenship) that are important to the preservation and improvement of democracy.	Explanation: Students will:  comply with district Acceptable Use Policy demonstrate respect for the digital work of others demonstrate respect for opinions of others posted online.

#### **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: Contribute to a cooperative learning project and demonstrate effective group behaviors while using digital collaborative resources.	Writing 03-S1C5-01 Prepare writing in a format (e.g., oral presentation, manuscript, multimedia) appropriate to audience and purpose.  Writing 03-S1C5-03 Writing 03-S1C6-03	Explanation: Guidelines and roles may need to be established to accomplish tasks to ensure active participation. Guidelines may include valuing differences of opinion, personal/group responsibility, reflection and positive interdependence through team roles.  Examples:  • Write a reflection to a literature selection on a blog or wiki.  • Write a collaborative informational report using a wiki.

# **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: Determine key words for use in information searches.	Reading 03-S1C4-07 Determine the meanings and other features of words (e.g., pronunciation, syllabication, synonyms, parts of speech) using the dictionary, thesaurus, and CD-ROM and Internet when available.	Explanation: Use advanced search techniques. Refer to the following websites for information on key word searching techniques: <a href="http://www.media-awareness.ca/english/resources/special_initiatives/wa_resources/wa_teachers/tipsheets/search_internet_effectively.cfm">http://www.media-awareness.ca/english/resources/special_initiatives/wa_resources/wa_teachers/tipsheets/search_internet_effectively.cfm</a> <a href="http://www.google.com/help/features.html#keyword">http://www.google.com/help/features.html#keyword</a> <a href="Examples:">Examples:</a> <a href="Use Google">Use Google</a> 's Wonderwheel to determine keywords
PO 2: Differentiate types of information and online sources.	Reading 03-S3C1-03 Use a variety of sources (e.g., trade books, encyclopedias, magazines, atlases, almanacs, electronic source, textbooks) to answer specific questions, and/or gather information.	Explanation: Students need to learn about the different types of information and sources available online. Students will develop a strategy before searching on the internet.  Some Online Sources include:  • Encyclopedia • Dictionaries • Databases • Government sites • AtLases • Library of Congress

# **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: Conduct a search using keywords to narrow or broaden a search.	Reading 03-S3C1-02 Reading 03-S3C1-03 Reading 03-S3C1-04 Reading 03-S3C1-05 Use a variety of sources (e.g., trade books, encyclopedias, magazines, atlases, almanacs, electronic sources, textbooks) to answer specific questions, and/or gather information	Examples:  • Have students conduct online research related to content areas by using keyword searches.
PO 2: Select and use primary and/or secondary sources.	SS 03-S1C1-03 Use primary source materials (e.g., photos, artifacts, interviews, documents, maps) and secondary source materials (e.g., encyclopedias, biographies) to study people and events from the past.  SS 03-S2C1-03	Explanation: Students should understand the difference between primary sources and secondary sources and where to locate them. Example:  • Use primary and secondary resources to study people and events from the past. Tie to Social Studies S2 C1 PO4.
PO 3: Differentiate between facts and opinions and inaccurate information.	Writing 03-S3C4 Writing 03-S3C5 Persuasive writing is used for the purpose of influencing the reader. The author presents an issue and expresses an opinion in order to convince an audience to agree with the opinion or to take a particular action.  Reading 03-S3C1-04 Use a variety of sources (e.g., trade books, encyclopedias, magazines, atlases, almanacs, electronic source, textbooks) to answer specific questions, and/or gather information.	Explanation: Students need to understand how to verify the authenticity and validity of websites. Students should be taught to do the following: 1. Check the domain. If the site is supposed to be a site about education, does the domain address end in .edu?  2. Read the "About Us." Is there contact information, as well as a clear detailing of who is responsible for creating and updating the site?  3. Check the last update. If the site hasn't been updated recently, it isn't a site from where you want to get information. The date for the most recent update usually appears at the beginning or at the end of the site's home page.  4. Compare similar sites. Check other sites that are supposed to have the same kind of information as the site you are visiting.  5. Use common sense. If the site is supposed to contain education information, for example, but it talks about unrelated things, it makes

Performance Objectives	Curriculum Connections	Explanations and Examples
		sense that the site is not <b>valid</b> .  Examples:  • While students are conducting online research have them follow a checklist to determine validity of websites they are searching.
PO 4: Organize information into major topics and create a list of ideas.	Reading 03-S3C1-02 Reading 03-S3C1-03 Reading 03-S3C1-04 Use a variety of sources (e.g., trade books, encyclopedias, magazines, atlases, almanacs, electronic source, textbooks) to answer specific questions, and/or gather information.  Writing 03-S1C1-04 Use organizational strategies (e.g., graphic organizer, KWL chart, logs) to plan writing. Writing 03-S3C2-01	Explanation: Students brainstorm ideas and then organize them into categories.  Examples: Students use software programs such as Kidspiration to generate ideas and organize them into outline form, or use KWL charts
PO 5: Follow copyright laws when using text and media, obtain permission to use the work of others, and cite resources appropriately.	Writing 03-S3C6-01 Paraphrase information from at least one source (e.g., Internet, reference materials).	<ul> <li>Explanation: Teach students to observe copyright laws. The following sites provide guidance as to fair use and copyright laws:</li> <li>Copyright Quiz:         <ul> <li>http://www.csus.edu/indiv/p/peachj/edte230/copyright/quiz.h</li> <li>fair Use in the K-12 Classroom:</li></ul></li></ul>

#### 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.

<b>Performance Objectives</b>	<b>Curriculum Connections</b>	Explanations and Examples
and collaborate as a class to define	SC 03-S3C2-03  Design and construct a technological solution to a common problem or need using common material	Explanation: Brainstorm as a class using digital concept mapping tools.  Examples: Software programs such as Inspiration, Bubble us, MindMeister, etc. could be used. Also, KWL chart.

#### 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	<b>Curriculum Connections</b>	Explanations and Examples
PO 1: Manage a learning project using digital planning tools to develop solutions.	Writing 03-S1C1-04 Use organizational strategies (e.g., graphic organizer, KWL chart, logs) to plan writing.	Explanation: Use a digital planning tool (example: Kidspiration) to brainstorm and organize ideas
	SS 03-S2C1-03 Use primary source materials (e.g., photos, artifacts, interviews, documents, maps) and secondary source materials (e.g., encyclopedias, biographies) to study people and events from the past.	Example:  • Use a social bookmarking site such as delicious or diigo to organize websites that are being searched.
PO 2: Generate alternative	SS 03-S3C4-02 Describe the importance of students contributing to a community (e.g.,	Explanation: The student uses appropriate computer-based productivity tools to create and modify solutions to problems.

<b>Performance Objectives</b>	Curriculum Connections	Explanations and Examples
solutions using collected resources and data.	service projects, cooperating, volunteering).	Example:  • Investigate a problem or issue found in the United States and/or another country from multiple perspectives, evaluate findings, and present possible solutions, using digital tools and online resources for all steps.

### **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.

<b>Performance Objectives</b>	Curriculum Connections	Explanations and Examples
PO 1: Explain when and why it is appropriate to use a personal digital device.	SC 03-S3C2-03 Design and construct a technological solution to a common problem or need using common materials.	Explanation: Using a blog or multimedia site such as Voice Thread, students will be presented with examples of when it is or is not appropriate to use personal digital devices.  Examples of when it may be appropriate to limit use of personal digital device could include the following:  • During a movie  • At a concert  • At the library  • While in a museum, art gallery, or hospital
PO 2: Describe cyber-bullying and describe strategies to deal with such a situation.	SS 03-S3C4-01  Describe the rights and responsibilities of citizenship: a. good sportsmanship b. participation and cooperation c. rules and consequences d. voting	Explanation: Explain the need for each individual to practice cyber safety, cyber security, and cyber ethics when using existing and emerging technologies. Cyber bullying, is defined as bullying:  • through email • through instant messaging • in a chat room • on a website or gaming site • through digital messages or images sent to a cellular phone • through social networking sites  Examples: Use the following websites to obtain lesson plans and ideas on how to teach strategies on dealing with cyber-bullying:  http://www.staysafeonline.org/in-the-classroom/lessons-and-teaching-materials  http://cybersmartcurriculum.org/
PO 3: Identify and articulate rules	SS 03-S3C4-01	Explanation: Students should comply with the school district's

Performance Objectives	Curriculum Connections	Explanations and Examples
for the use of digital tools as defined by school board policy and procedures.	Describe the rights and responsibilities of citizenship: good sportsmanship participation and cooperation rules and consequences voting	Acceptable Use Policy (AUP) as well as be able to understand and explain their classroom rules of safe technology use. In addition, occasions may arise where potential dangers in digital environments occur and students should know how to report potentially unsafe situations to their teacher.
PO 4: Identify and discuss why it is important not to provide personal information in online communication.	SS 03-S3C4-01 Describe the rights and responsibilities of citizenship: good sportsmanship participation and cooperation rules and consequences voting	Explanation: Go to Discovery Streaming within the IDEAL Portal and search for the following online resources:  The Internet: A Guide for Students  Internet Netiquette and Safety  Digital Citizenship resources
PO 5: Explain the importance of respecting the privacy of others' information and digital workspace.	SS 03-S3C4-01  Describe the rights and responsibilities of citizenship:     good sportsmanship     participation and cooperation     rules and consequences     voting  SS 03-S3C4-03  Identify traits of character (e.g., honesty, courage, cooperation, respect, trustworthiness, responsibility, citizenship) that are important to the preservation and improvement of democracy.	Explanation: A student should only do his/her own work.

# **Strand 5: Digital Citizenship**

# **Concept 2: Leadership for Digital Citizenship**

Demonstrate leadership for digital citizenship.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1:	No POs for this Concept in Grade 3	

# **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	<b>Curriculum Connections</b>	Explanations and Examples
PO 1: Compare how past and present cultures used technology to improve their lives.	SS 03-S4C4-02 Describe changes over time in communication networks (e.g., telegraph, telephone, postal, internet).	Explanation: Students will study how technology has impacted communication over time.  Example: Use the Thinkfinity website to search for historical timelines

# **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		Explana	ations and	Examples	
PO 1: Define and label various technical system terms.	Reading 03-S1C4-07 Determine the meanings and other features of words (e.g., pronunciation, syllabication, synonyms, parts of speech) using the dictionary, thesaurus, and CD-ROM and Internet when available	Hardware  CD Computer CPU Digital Camera DVD Ethernet Hard Drive Keyboard Laptop Modem Monitor Mouse PC Printer Scroll	Software  Application Clip Art Database Desktop Excel File Finder Folder Mac OS Maximize Minimize Operating System Program Recycle Bin/Trash	Internet  Bookmark Browser Download E-mail Favorites Google Home Page Search Engine Upload Web Page Website WWW Yahoo YouTube	Technical  Caps Lock Character Cursor Default Font GIF Graphics Icon JPEG Keystroke Login Multimedia MP3 Password Shift Key Troublesho	Commands  Delete Copy Cut Double Click Drag Paste Right Click Undo
PO 2: Define and apply knowledge of various technical process terms.	Workplace Skills Strand 1	contextual sit Examples: "N	Double-Click	essary to stude low smaller."	ent understand Instead state,	ling. "Minimize the

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 3: Choose technology applications for a given activity/project.	Reading 03-S3C2-01 Follow a set of written multi-step directions.  Writing 03-S1C5-01 Prepare writing in a format (e.g., oral presentation, manuscript, multimedia) appropriate to audience and purpose.  M 03-S2C1-01 Collect, record, organize, and display data using frequency tables, single bar graphs, or single line graphs.	Explanation: In order to enhance learning, increase productivity and creativity students should choose the appropriate program that best matches the given activity.  Examples: Word Processing Program: personal narratives, stories, poetry songs, lists, letters, reports, journal Publishing Program: invitations, newspaper article, postcards, posters, greeting cards, certificate Spreadsheet Program: data collection, comparisons, charts, graphs Presentation Program: multimedia presentation, public speaking, slide shows Painting Program: produce creative works, illustrating and drawing
PO 4: Demonstrate knowledge of ergonomics and electrical safety when using computers.	SC 03-S1C2-01 Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.	Explanation: Correct posture, position of hands and feet, proper height of keyboard, proper lifting an moving of equipment  Properly powering on/off a computer.
PO 5: Identify physical risks of using digital technology.		Explanation: Correct posture, position of hands and feet, proper height of keyboard, proper lifting an moving of equipment

# **Strand 6: Technology Operations and Concepts**

# **Concept 2: Application**

Select and use applications effectively and productively.

<b>Performance Objectives</b>	<b>Curriculum Connections</b>	Explanations and Examples
PO 1: Demonstrate speed and accuracy in use of keyboard and data entry tools with at least		Explanation: Use keyboard effectively (e.g., know location and function of keys, home row) Students will place their left hand fingers on letters a, s, d, f, and their

Performance Objectives	Curriculum Connections	<b>Explanations and Examples</b>
5wpm and 80% accuracy.		right hand fingers on letters j, k, l, ;. Both thumbs will use the space bar when needed. The left hand stays on the left side of the keyboard while the right hand stays on the right side of the keyboard.
PO 2: Compose a document that applies intermediate formatting.	Writing 03-S1C5-01 Prepare writing in a format (e.g., oral presentation, manuscript, multimedia) appropriate to audience and purpose.  Writing 03-S3C1-02	Explanation: Intermediate formatting may include but is not limited to:  Paragraph settings Borders Paragraph shading Tab stops Forced page break Paragraph alignment  Example: During unit on Civil War and Reconstruction, students will write an acrostic poem and utilize a word processing program to publish their writing piece. Students will insert a picture /graphic to illustrate the poem, as well as adjust the font's type, size, and color.
PO 3: Use spreadsheets to organize and sort data.	SC 03-S1C1-02 Predict the results of an investigation based on observed patterns, not random guessing. SC 03-S1C2-01 SC 03-S1C2-02 SC 03-S1C2-03 Participate in planning and conducting investigations, and recording data. SC 03-S1C3-01 SC 03-S1C3-02 SC 03-S1C3-03 SC 03-S1C4-01 SC 03-S1C4-01 SC 03-S1C4-02 SC 03-S1C4-03 SC 03-S4C3-05	Explanation: Students will design a spreadsheet to organize and graph information.  Example: Students will plan and conduct an investigation related to environmental factors that affect a plant to grow within an ecosystem. Students will make predictions prior to changing variables and organize their data using a spreadsheet tool. Students will communicate their results using a bar graph and compare the final results to their initial predictions.
PO 4: Define the term "database" and provide examples from	Reading 03-S3C1-03 Locate specific information by using organizational features (e.g.,	Explanation: Explain that computers can store and organize information so that it can be searched.

Performance Objectives	Curriculum Connections	Explanations and Examples
everyday life.	title, table of contents, headings, captions, bold print, key words, glossary, indices, italics, key words) in expository text.	Example: Collect information from the class on which pets they have at home. Do this with the other 3 <sup>rd</sup> grade classes in your school. Then input that data into a database.  Then use the various functions of sorting and categorizing to demonstrate the power of databases.
PO 5: Plan, create, and edit multimedia presentation.	SS 03-S1C1-03 Use primary source materials (e.g., photos, artifacts, interviews, documents, maps) and secondary source materials (e.g., encyclopedias, biographies) to study people and events from the past.  SS 03-S2C1-03	Explanation: Each student should use a research project as a basis for developing and presenting a report using a multimedia software program (such as PowerPoint).  Example: Study people and events from the past and create a multimedia presentation as the final product.
PO 6: Identify components and modules on a web page.	SC 03-S2C2-01 Describe how, in a system (e.g., terrarium, house) with many components, the components usually influence one another.	Explanation: Some of the components of a web page include but are not limited to:  Address Bar Hyperlinks Favorite(s) Web Search Back Button Resize a window Scroll a Web page Print a Web page Refresh the Page
PO 7: Demonstrate appropriate use of log-in procedures and network printing.	SS 03-S3C4-03 Identify traits of character (e.g., honesty, courage, cooperation, respect, trustworthiness, responsibility, citizenship) that are important to the preservation and improvement of democracy.	Explanation: Students should practice safe and correct security procedures. (e.g., protect username and password) Students will follow school and classroom guidelines and policies to login and logout.

# **Strand 6: Technology Operations and Concepts**

# **Concept 3: Troubleshoot Systems and Processes**

Define problems and investigates solutions in systems and processes.

Performance Objectives	Curriculum Connections	Explanations and Examples
PO 1: Identify and apply successful troubleshooting strategies for minor hardware and software issues/problems.	SC 03-S1C1-01 SC 03-S1C1-02 Observe, ask questions, and make predictions. SC 03-S2C2-01 SC 03-S2C2-02 SC 03-S2C2-05 Understand how science is a process for generating knowledge. SC 03-S1C3-02 SC 03-S1C3-03 SC 03-S1C3-04	Explanation: Under the supervision of an adult, students can troubleshoot issues pertaining to technology. (e.g., loose Ethernet and power cords, mouse and keyboard connectivity issues, incorrect/faulty batteries)

# **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 input/output devices and symbols and icons to learning new technologies.	Writing 03-S1C5-01 Prepare writing in a format (e.g., oral presentation, manuscript, multimedia) appropriate to audience and purpose.	Explanation: Students will demonstrate the proper use of keyboard, mouse, and printer along with desktop, web browser, and program icons.  Examples: Help, print, save