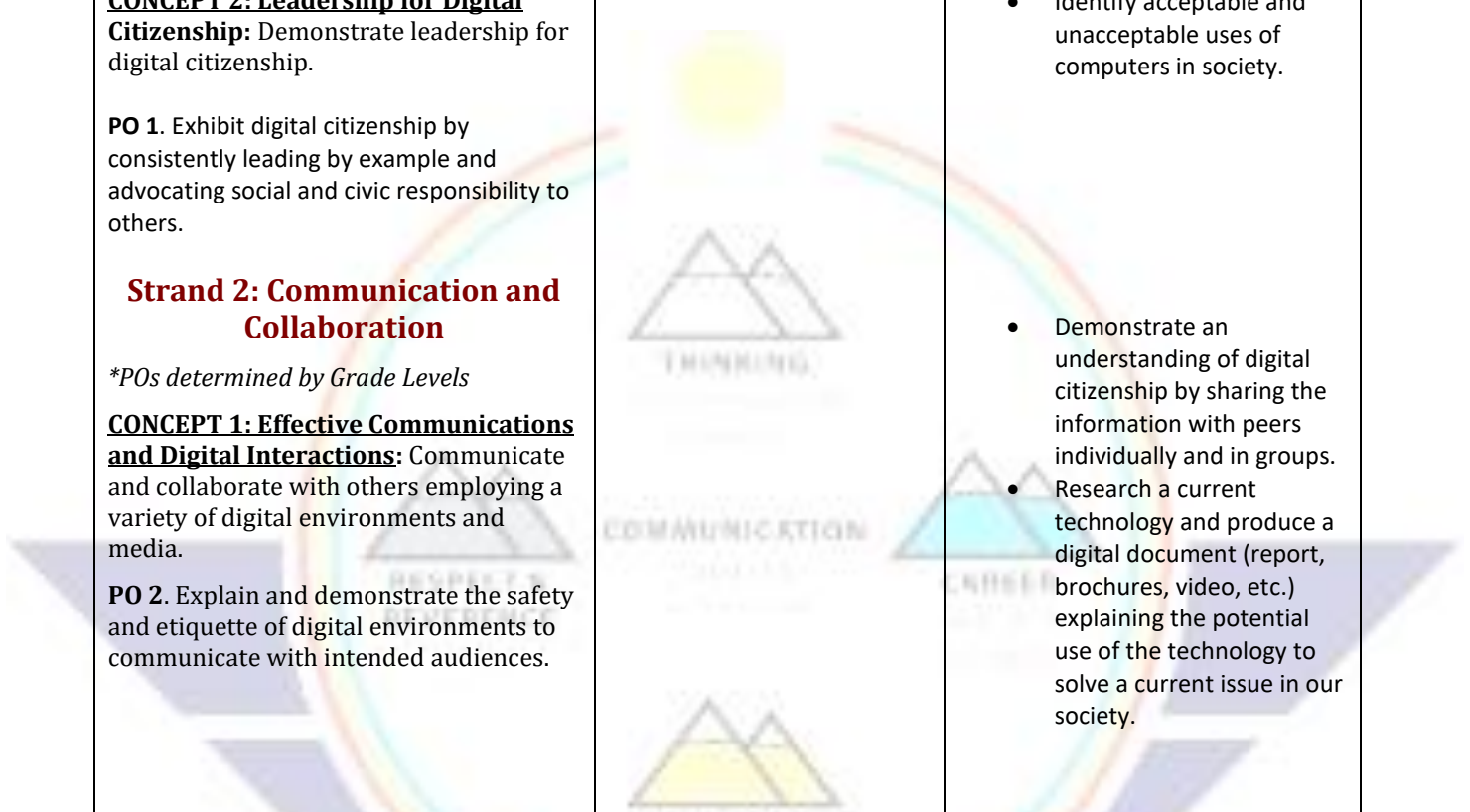# Ganado Unified School District #20
(Computers for 3rd, 4th, & 5th Grade)

PACING Guide SY 2022-2023

Resources	AZ College and Career Readiness Standard	Essential Question (HESS Matrix)	Learning Goal	Vocabulary (Content/Academic)
First Quarter				
QUARTER 1: -Online Resources • Netsmartzkids.org • Code.org • Typing.com -Internet access -Printer/Copier -USB Drive	**Strand 5: Digital Citizenship** *POs determined by Grade Levels* **CONCEPT 1: Safety and Ethics:** Advocate and practice safe, legal, and responsible use of information and technology. **PO 1:** Explain when and why it is appropriate to use a personal digital device. **PO 2:** Describe cyber-bullying and describe strategies to deal with such a situation. **PO 3**: Identify and articulate rules for the use of digital tools as defined by school board policy and procedures. **PO 4:** Recognize and describe the potential risks and dangers associated with various forms of online communications. **PO 5:** Recognize and describe the advantages and risks of making a personal spending choice online. **PO 6**: Articulate how to respect the privacy of others' information and digital workspace.	How can we demonstrate appropriate use of digital tools? What is one example of cyber-bullying and explain a positive solution to the situation? Describe the risks and dangers of various forms of online communication or online purchasing.	Students will be able to: • Identify the proper use of digital devices, including how, when, and where a personal digital device (iPod, cell phone, PDA, etc.) should be used. • Identify and express the policies presented in the District's Acceptable Usage Policy. • Explain the consequences of inappropriate use of technology. • Discuss cyber-bullying and brainstorm possible solutions • Recognize and describe the potential risks and dangers associated with various forms of online communications.	Authority Concept mapping tool Cyber Cyber-bullying Digital Digital citizenship Digital environments Digital tools Identity theft Fair use Personal digital device Publish Etiquette Netiquette

	CONCEPT 2: Leadership for Digital Citizenship: Demonstrate leadership for digital citizenship. **PO 1**. Exhibit digital citizenship by consistently leading by example and advocating social and civic responsibility to others.		• Identify acceptable and unacceptable uses of computers in society.	
	Strand 2: Communication and Collaboration *POs determined by Grade Levels* **CONCEPT 1: Effective Communications and Digital Interactions:** Communicate and collaborate with others employing a variety of digital environments and media. **PO 2**. Explain and demonstrate the safety and etiquette of digital environments to communicate with intended audiences.		• Demonstrate an understanding of digital citizenship by sharing the information with peers individually and in groups. • Research a current technology and produce a digital document (report, brochures, video, etc.) explaining the potential use of the technology to solve a current issue in our society.	
	Strand 6: Technology Operations and Concepts *POs determined by Grade Levels* **CONCEPT 1: Understanding:** Recognize, define, and use technology term, processes, systems, and applications. **PO 1**. Describe the various technical system terms. **PO 2**. Define and apply knowledge of various technical process terms.	What are the causes and effects of using digital technology?	Students will able to: • Identify and define parts of the computer and network folders. • Describe the correct posture, position of hands and feet, proper height of keyboard, proper lifting and moving of equipment.	Component Device Digital Directory Document Ergonomic Hard drive Hardware Icon

	PO 4. Recognize and demonstrate ergonomically safe and sound use of equipment. **PO 5**. Identify physical risks of using digital technology. **CONCEPT 2: Application:** Select and use applications effectively and productively. **PO 1**: Demonstrate speed and accuracy in use of keyboard and data entry tools with at least: 5 wpm and 80% accuracy (3rd grade) 10 wpm and 80% accuracy (4th grade) 15 wpm and 80% accuracy (5th grade) **CONCEPT 4: Transfer of Knowledge:** Transfer current knowledge to learning of new technologies. **PO 1**. Transfer understanding of current input/output devices, symbols and icons, and applications to learning new technologies.	What are the differences between proper keyboarding techniques and poor keyboarding techniques?	• Demonstrate proper keyboarding techniques, assess keyboard accuracy, and develop speed. • Apply basic operations of hardware and software processes to a new Operating System.	Input device Interactive white board Media Net speed Output device Qwerty keyboard Server Toolbar Wi-Fi WPM (Words Per Minute)

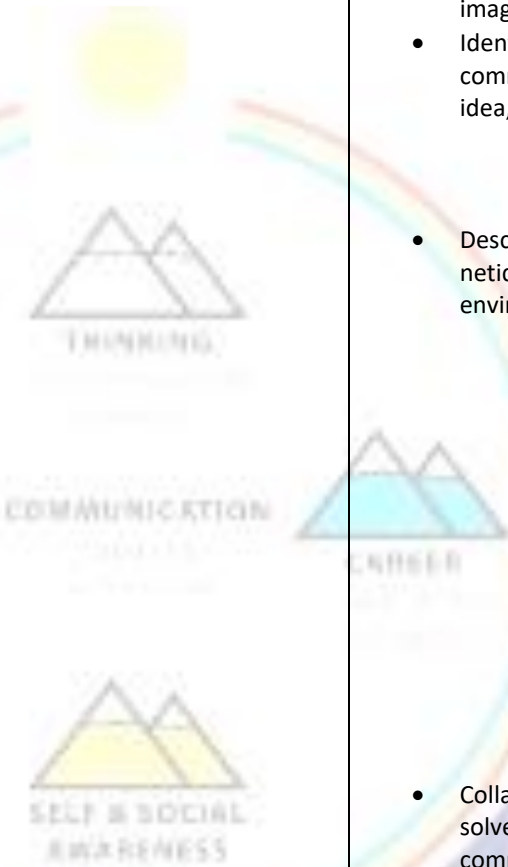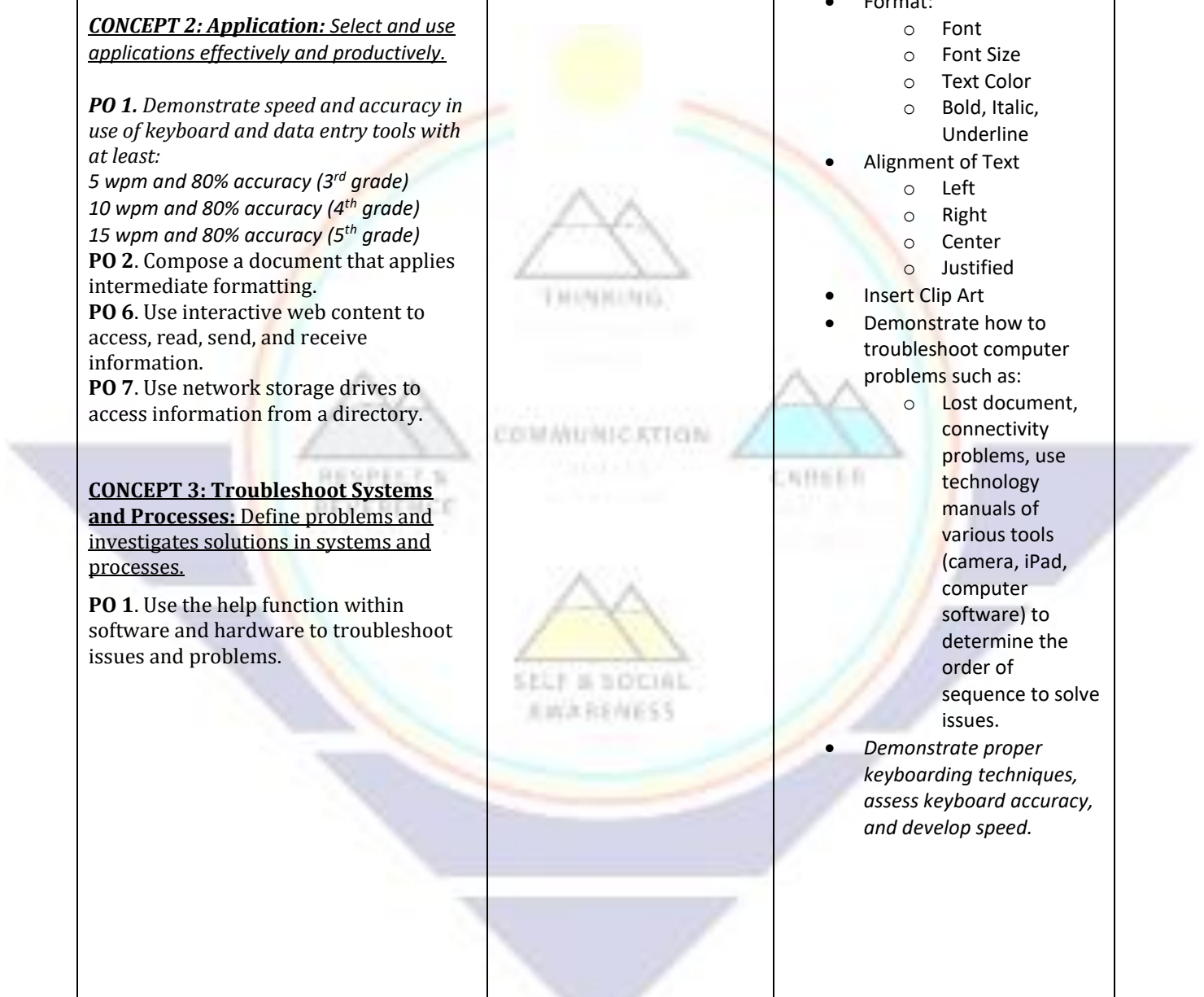| Second Quarter				
QUARTER 2: -Online Resources • Netsmartzkids.org • Code.org • Typing.com -Internet access -Printer/Copier -USB Drive -Email -Skype -Chat -Digital camera	**Strand 1: Creativity and Innovation** *POs determined by Grade Levels* **CONCEPT 1: Knowledge and Ideas:** Use technology to generate knowledge and new ideas. **PO 1.** Analyze information to generate ideas and processes. **CONCEPT 2: Models and Simulations:** Use technology to generate knowledge and new ideas. **PO 2**. Explore and experiment with system variables using models or simulations. **PO 3**. Transfer understanding of how one system operates by comparing it to another system. **CONCEPT 4: Original Works**: Use technology to create original works in innovative ways. **PO 1.** Analyze information using digital creativity tools to create original works and express ideas. **PO 2.** Analyze information using digital collaborative tools to produce original works and express ideas.	Evaluate technology, how did it change the way we communicate?	Students will be able to: • Create with technology through free computer science clubs (www.cs-first.com). • Use Scratch to create stories, games, and animations and share with others around the world. • Compare and contrast systems, using digital tools, to identify similarities and differences. • *Create original works of personal or group expression using digital tools.*	Differences Graphic organizer Similarities Essential questions Digital tools

	Standard 4: Critical Thinking, Problem Solving, and Decision Making *POs determined by Grade Levels* **CONCEPT 1: Investigation:** Identify and define authentic problems and significant questions for investigation. **PO 1.** Write essential questions to investigate a topic or issue using digital tools and resources. **CONCEPT 2: Exploring Solutions:** Plan and manage activities to develop solutions to answer a question or complete a project. **PO 1.** Plan and manage research using credible digital resources to develop solutions to answer a question. **PO 2**. Generate solutions from different perspectives using collected resources and data.	How are games created?	Students will be able to: • Use the **Code.org** Program to follow directions and problem solve to create games using code.	Algorithm Bug Debugging Program Programming Loop Repeat Event Condition Conditionals Binary
	Strand 2: Communication and Collaboration *POs determined by Grade Levels* **CONCEPT 1: Effective Communications and Digital Interactions:** Communicate and collaborate with others employing a variety of digital environments and media. **PO 1**. Communicate digitally with others by selecting and using a variety of appropriate communication tools.		Students will able to: • Identify communication technologies and how they can be used to promote collaboration between peers and colleagues. • Observes teacher use of email to safely and securely collect information or share ideas with others. • Locate, select, and use various media to be used	Blog Bluetooth Chat Collaborative tools Digital image/graphic Digital storytelling Digital video Drawing tool Global community Mobile device Netiquette Network Online community Personal digital device Podcast

	CONCEPT 2: Digital Solutions: Contribute to project teams to produce original works or solve problems.
	
	PO 1. Contribute to a cooperative learning project and demonstrate effective group behaviors while using digital collaborative resources.
	
	CONCEPT 3: Global Connections: Create cultural understanding and global awareness by interacting with learners of other cultures.
	
	PO 1. Communicate with individuals from different cultures or geographic areas to explore a variety of perspectives.
			to communicate (e.g. text, images, audio, and video)
			• Identify the best tool to communicate a concept, idea, or information
			    o Podcasting
			    o Email
			    o Chat
			• Describe the proper netiquette with digital environments.
			    o Use of Academic language in a professional environment (ex. Email)
			    o Use of casual language with social network (ex. FaceBook, MySpace)
			    o Texting using emoticons or "internet slang" (ex. LOL)
			• Collaborate as a group to solve a puzzle using a communication tool
				Social media
				Social networking
				Texting or text message
				Upload

	Strand 6: Technology Operations and Concepts *POs determined by Grade Levels* **CONCEPT 1: Understanding:** Recognize, define, and use technology term, processes, systems, and applications. **PO 3**. Choose technology applications for a given activity/project.	Judge and rate your ability to compose a document; use intermediate formatting; and save and print a document.	Students will be able to: • Create, Open, Close, Save/Save As to USB/flash drive/external flash drive and Edit a document • Print and Print Preivew • Cut, copy, and paste	Clip art File extension (.doc, .ppt, .jpg, .pdf) Flash drive or USB Formatting Troubleshooting

**CONCEPT 2: Application:** Select and use applications effectively and productively.

**PO 1.** Demonstrate speed and accuracy in use of keyboard and data entry tools with at least:
5 wpm and 80% accuracy (3rd grade)
10 wpm and 80% accuracy (4th grade)
15 wpm and 80% accuracy (5th grade)
PO 2. Compose a document that applies intermediate formatting.
PO 6. Use interactive web content to access, read, send, and receive information.
PO 7. Use network storage drives to access information from a directory.

CONCEPT 3: Troubleshoot Systems and Processes: Define problems and investigates solutions in systems and processes.

PO 1. Use the help function within software and hardware to troubleshoot issues and problems.

- Format:
  - Font
  - Font Size
  - Text Color
  - Bold, Italic, Underline
- Alignment of Text
  - Left
  - Right
  - Center
  - Justified
- Insert Clip Art
- Demonstrate how to troubleshoot computer problems such as:
  - Lost document, connectivity problems, use technology manuals of various tools (camera, iPad, computer software) to determine the order of sequence to solve issues.
- _Demonstrate proper keyboarding techniques, assess keyboard accuracy, and develop speed._

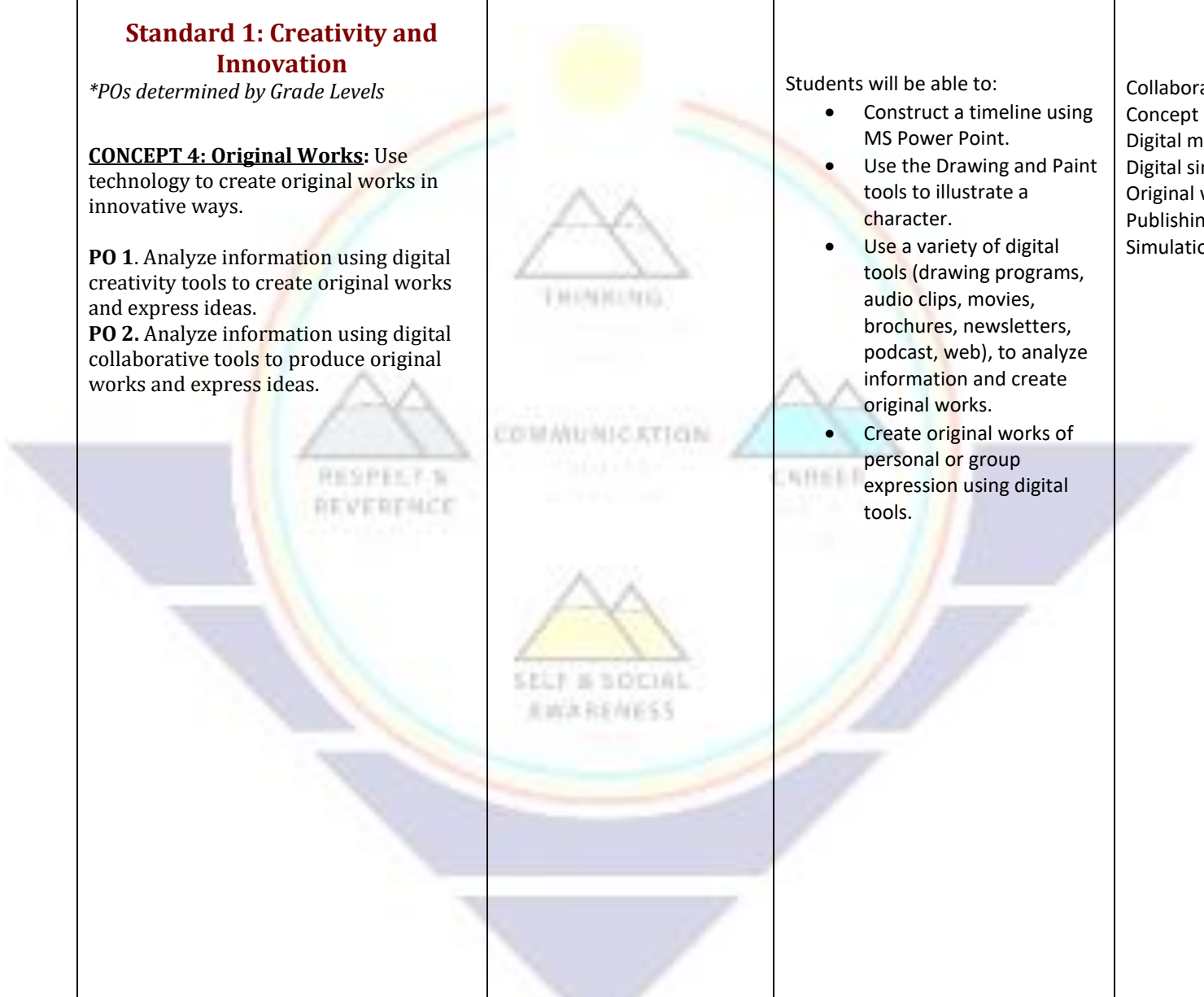| QUARTER 3:	Strand 3: Research and Information Literacy		Students will be able to:	
-Online Resources • Netsmartzkids.org • Code.org • Typing.com -Internet access -Printer/Copier -USB Drive	*POs determined by Grade Levels* **CONCEPT 1: Planning:** Plan strategies to guide inquiry using technology. **PO 1.** Predict and use key words and phrases that narrow or broaden information searches. **PO 2.** Predict which information sources will provide the desired data. **CONCEPT 2: Processing:** Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. **PO 1**. Locate and synthesize information to revise search strategies. **PO 2**. Select and use authoritative primary and/or secondary sources. **PO 3**. Evaluate between fact and opinion, bias, inaccurate and misleading information by consulting more than one source. **PO 4**. Use appropriate digital tools to synthesize research information and develop new ideas. **PO 5**. Follow copyright laws when using text, images, videos and/or other sources and obtain permission to use the work of others, and cite resources appropriately.	What are some good strategies for researching using the Internet? How can we use our researching skills and apply it to real-life situations?	• Use a variety of resources found in a variety of formats (e.g. Internet, card catalog, CD-ROM, databases) • Use a web browser to navigate the Internet using a child friendly search engine (e.g. forward, back, hyperlink, home, and favorites/ bookmarks, refresh/reload). • Use a teacher prepared list of favorites/bookmarks or portals form a teacher web page to gather information • Use basic web browsing vocabulary (e.g. URL, hyperlink, favorites/ bookmarks, search box, and scroll bar). • Uses appropriate search strategies (identifying keywords for electronic searches and evaluating relevance, gathering techniques, sorting and reporting information strategies). • Explain resources selected for assigned task.	Application Browser Cookies Database Digital tools Download FAQ (Frequently Asked Questions) Firewall Hacking Homepage Hyperlink Identity theft Intellectual property (copyright) Intranet Link Media hosting Network Network storage devices Password Primary source Search engine Secondary source Spam Spoofing URL Virus Web browser Webinar Website Webpage Wiki World wide web (www.)

			• Evaluate Internet resources and check for accuracy, bias, and truth (e.g. blogs, wikis, forums) • Develop an awareness of Internet resource evaluation (Cybersmart lesson) • Identify the URL as a host of information of a domain (e.g. .gov, .com, .edu, .org, .net, .tv) • Locate the author/creator of a website to determine credibility of the information *with assistance*.	
	Standard 6: Technology Operations and Concepts *POs determined by Grade Levels* **CONCEPT 2: Application:** Select and use applications effectively and productively.. *PO 1. Demonstrate speed and accuracy in use of keyboard and data entry tools with at least:* *5 wpm and 80% accuracy (3rd grade)* *10 wpm and 80% accuracy (4th grade)* *15 wpm and 80% accuracy (5th grade)* **PO 5.** Create multimedia presentations with multiple pages, audio, and transitions for individual assignments. *PO 7. Use network storage drives to access information from a directory.*	How can we use technology to present what we have learned?	Students will be able to: • Create, edit, and format a Power Point presentation for a given research project. • Present their Power Point presentation to their class. • *Create, Open, Close, Save/Save As to USB/flash drive/external flash drive* Students will be able to: • *Demonstrate proper keyboarding techniques, assess keyboard accuracy, and develop speed.*	Formatting tools Multimedia presentation Presentation software

| | **Standard 1: Creativity and Innovation**
POs determined by Grade Levels

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

PO 1. Analyze information using digital creativity tools to create original works and express ideas.
PO 2. Analyze information using digital collaborative tools to produce original works and express ideas. | | Students will be able to:
• Construct a timeline using MS Power Point.
• Use the Drawing and Paint tools to illustrate a character.
• Use a variety of digital tools (drawing programs, audio clips, movies, brochures, newsletters, podcast, web), to analyze information and create original works.
• Create original works of personal or group expression using digital tools. | Collaborative tools
Concept mapping tool
Digital models
Digital simulation
Original works
Publishing
Simulation |

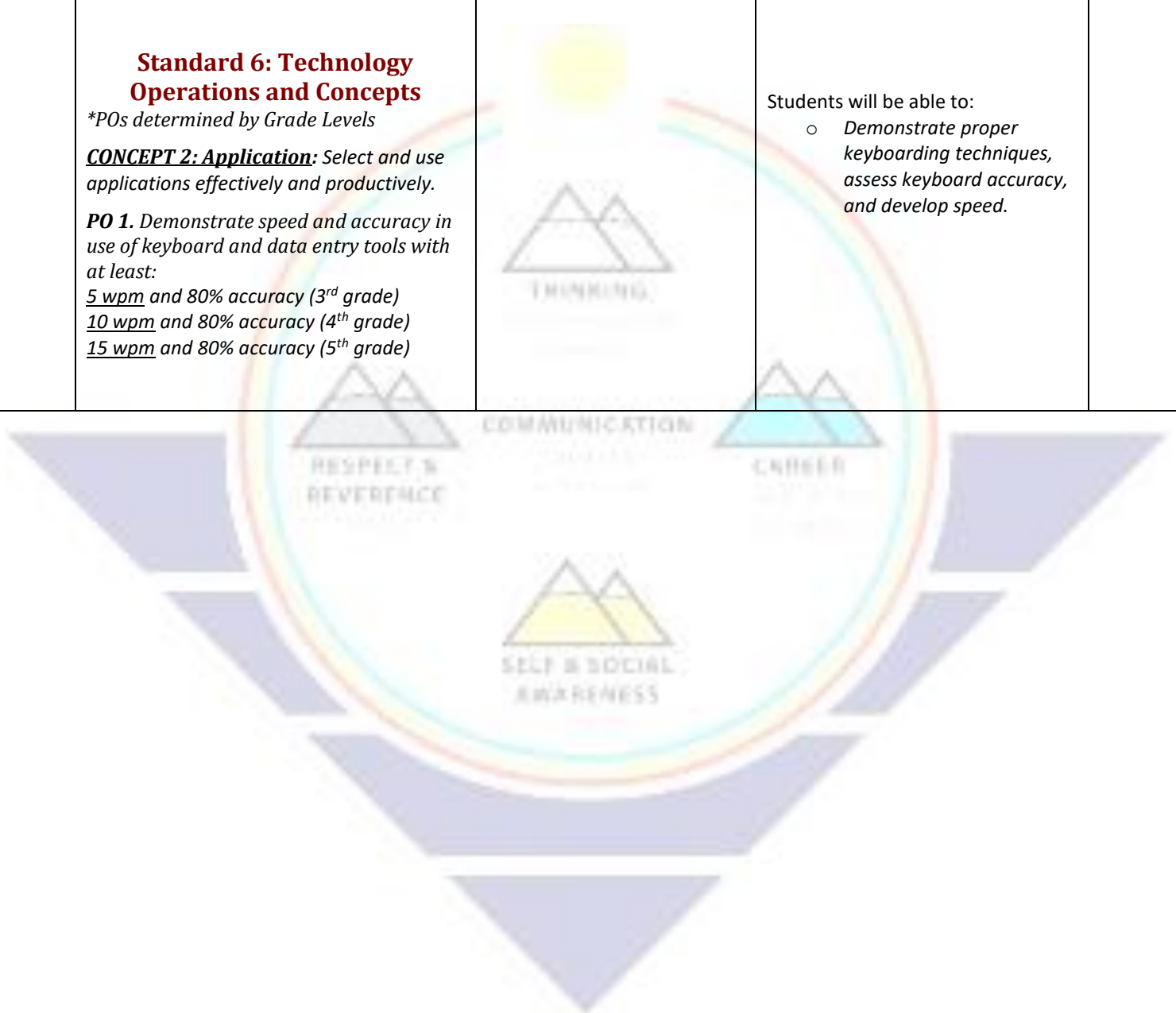| Fourth Quarter				

QUARTER 4:
 	
-Online Resources
  • Netsmartzkids.org
  • Code.org
  • Typing.com
-Internet access
-Printer/Copier
-USB Drive
	Standard 6: Technology Operations and Concepts
	*POs determined by Grade Levels
	
	CONCEPT 2: Application: Select and use applications effectively and productively.
	
	PO 3. Apply spreadsheet formatting skills.
	PO 4. Perform simple operations in a database.
	***PO 7**. Use network storage drives to access information from a directory.*
		As a business owner, how can you keep track of your financial data?
		
		Demonstrate how you can visually present data.
			Students will be able to:
			• Create charts and graphs using specific data.
			• Create a simple spreadsheet adding multiple cells using simple functions and manually writing formulas.
			• *Create, Open, Close, Save/Save As to USB/flash drive/external flash drive.*
				Cells
				Chart
				Data
				Database
				Formula
				Formula bar
				Graph
				Spreadsheet

	Standard 1: Creativity and Innovation **POs determined by Grade Levels* **CONCEPT 3: Trend and Possibilities:** Use technology to forecast trends and possibilities. **PO 1.** Identify patterns and trends to draw conclusions and forecast possibilities.		Students will be able to: • Construct a survey to gather data using an interactive digital tool, then display results. • Create a simple database from a template to organize, sort, and manage information *with assistance*. • *Use a variety of digital tools (drawing programs, audio clips, movies, brochures, newsletters, podcast, web), to analyze information and create original works.*	Patterns Survey Trends

	Standard 6: Technology Operations and Concepts		Students will be able to:	
	POs determined by Grade Levels		○ *Demonstrate proper keyboarding techniques, assess keyboard accuracy, and develop speed.*	
	CONCEPT 2: Application: *Select and use applications effectively and productively.*			
	PO 1. *Demonstrate speed and accuracy in use of keyboard and data entry tools with at least:* *5 wpm and 80% accuracy (3ʳᵈ grade)* *10 wpm and 80% accuracy (4ᵗʰ grade)* *15 wpm and 80% accuracy (5ᵗʰ grade)*			