Course: Elementary Technology **Grade:** 4th	**Overview of Course**: Elementary technology in Fourth Grade expands upon skills learned previously. The course reviews navigating the desktop and internet, using software applications, being safe online, and using ergonomically correct touch typing. Students continue to explore Web 2.0 tools, netiquette, and using more advanced formatting in Microsoft programs. The emphasis is on effectively gathering and presenting information through reports, spreadsheets, and visual presentations.

Overarching Big Ideas, Enduring Understandings, and Essential Questions

Big Idea	Standard(s) Addressed	Enduring Understanding(s)	Essential Question(s)
Digital Citizenship	15.4.5.B. Identify and demonstrate understanding of ethical, safe, and social online behavior and potential consequences of unethical, unsafe, and inappropriate behavior. 15.3.5.T. Explain the importance of digital citizenship. 15.3.5.M Apply proper etiquette when using technology. 15.3.5.O Discuss appropriate communication skills within organizations. 15.3.5.Q Identify communication channels at school, home, and social events. 15.3.5.S Explain electronic communication options (e.g., formal vs. informal, time constraints, geographic location) based on the intended message. 15.7.5.I Identify how misunderstandings occur when speaking, writing, or incorrectly interpreting language. 15.7.5.J. Identify non-verbal behaviors and their impact on communication.	Being safe online is essential and includes safeguarding your private information. You must give proper credit when using digital media that is someone else's intellectual property. You must communicate respectfully through online forums such as blogs. It is hard to convey tone through social media and e-mail.	How do you responsibly use computer programs and applications? Why is it important to protect your personal information online? What are the consequences of not being safe online? How can you respectfully use others' intellectual property? How do you cite sources? Why should you be respectful in online communication?

		Big Ideas, Enduring Understandings, and Essential Questions Per Unit of Study		
Title of Unit	**Big Idea(s)**	**Standard(s) Addressed**	**Enduring Understanding(s)**	**Essential Question(s)**
Touch Typing	Patterns	15.4.5.D. Demonstrate the ergonomically correct use of more sophisticated input technologies. CC.1.4.4.U …Demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.	There is an ergonomically correct way to touch type.	What are the benefits of using the keyboard and mouse in an ergonomically correct way? Why is it essential to use proper formatting when composing documents?
Internet Research	Connections	15.6.5.L. Discuss the characteristics of a credible website. 15.3.5.E Distinguish between age appropriate and inappropriate print and electronic resources used for introductory research. 15.3.5.I Demonstrate note taking and questioning skills.	Using a search engine allows you to find specific information on the internet. It is important to determine the reliability of a website.	How can your search terms help you locate information online? How can you determine if a site is reliable?
Desktop Skills	Security Systems Patterns	15.4.5.D. Demonstrate the ergonomically correct use of more sophisticated input technologies.	Files are easily accessed when given descriptive names and organized into folders. Multiple windows can be manipulated through resizing and minimizing.	What are some various ways to organize files and folders for easy access? What are the characteristics of a "good" file name? What are the advantages of using multiple windows?

Title of Unit	Big Idea(s)	Standard(s) Addressed	Enduring Understanding(s)	Essential Question(s)
Spreadsheets	Organization Manipulation	15.4.5.G. Create a digital project using appropriate software/application for an authentic task. 15.4.5.K Use digital media to enhance a content-specific work product.	It is important to organize and format spreadsheets to share information clearly. Manipulating cells will provide a more meaningful spreadsheet. Using formulas makes calculations easier.	What makes a spreadsheet easy to understand? How can you manipulate cells to share information? What characteristics are shared by all formulas?
Word Processing	Perspective Expression Communication	15.4.5.G. Create a digital project using appropriate software/application for an authentic task. CC.1.4.4.U With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. CC.1.4.4.F Demonstrate a grade appropriate command of the conventions of standard English grammar and spelling.	You can enhance the readability of a document by formatting. Formal typed documents follow certain conventions. Microsoft Word automatically draws attention to spelling and grammar mistakes and provides suggestions for fixing those mistakes. A well written document clearly communicates the author's purpose.	What are ways to use formatting to visually enhance a document? *What is the proper way to use spacing in a document?* What are the benefits of using proper formatting (spacing, tab, etc.) when composing documents? What are ways to use spelling/grammar check to make corrections to your document? What features are shared between Microsoft Word and Publisher? What are advantages and disadvantages of using Word vs. Publisher?

Title of Unit	Big Idea(s)	Standard(s) Addressed	Enduring Understanding(s)	Essential Question(s)
Web 2.0	Creativity Exploration Connections	15.4.5.A Identify emerging technologies used for educational and personal success. 15.4.5.G. Create a digital project using appropriate software/application for an authentic task. 15.4.5.K Use digital media to enhance a content-specific work product. CC.1.4.4.U With guidance and support, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. 15.3.5.V Identify mobile communications used in various settings. 15.3.5.X Identify diversity within groups and its effect on communications.	Emerging technologies can enhance productivity. Internet tools allow for communication and collaboration. Conversation threads organize online communication. Different communication situations require different levels of language formality. Written language can be misinterpreted because there are no tone or body language cues.	What are some advantages and disadvantages of using Web 2.0 tools? How can collaboration through Web 2.0 tools increase productivity? In what circumstances would one reply to a discussion thread vs. creating a new thread? What communication situations require formal responses vs. "text talk"? How can online communication be interpreted multiple ways?

Title of Unit	Big Idea(s)	Standard(s) Addressed	Enduring Understanding(s)	Essential Question(s)
Digital Design	Discovery Creativity Patterns	15.4.5.G. Create a digital project using appropriate software/application for an authentic task. 15.4.5.K Use digital media to enhance a content-specific work product. 15.3.5.G Prepare appropriate information for impromptu and planned presentations.	People can share information through visual presentations. Visual aids can help the audience better understand a presentation. Effective presenters do not allow technology to give the presentation. Rather, technology enhances it. Taking, uploading, and modifying digital pictures can enhance visual presentations. Using your own photographs makes presentations more personal and does not require obtaining copyright permission.	What makes a visually appealing presentation (WordArt, animations, backgrounds, transitions, etc.)? What are the advantages of manipulating clipart? How does applying knowledge of visual literacy enhance a presentation? In what ways can you add your own digital pictures to presentations? What are advantages and disadvantages of using your own digital pictures in presentations?
Computer Programming	Discovery Creativity Patterns Perspective	15.4.5.A Identify emerging technologies used for educational and personal success. 15.3.5.C Apply strategies to understand directions.	People can create programs that tell electronics what to do. Computers need very specific lists of directions to complete tasks.	How can you give a computer directions?