Grade 6 - Introduction to Digital Applications

Grade(s):	☐ K ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	☑ 6 ☐ 7 ☐ 8	☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ Other _____
Discipline/Course:	**Discipline:** Library/Media **Course:** 6th Grade Computer Literacy and Applications		
Course Title:	6th Grade Computer Literacy and Applications		
Prerequisite(s):	N/A		
Course Description: *Program of Studies*	This one marking period 6th grade required course is a content, skills, and project-based class where students will develop a basic understanding of computer concepts and systems, applications, digital ethics, and responsibilities. Students must also apply critical thinking, problem-solving, and creativity to their efforts.		
Course Essential Questions:	● How can developing efficient typing skills in middle school prepare us for the typing demands of middle school, high school, and future careers? ● How do we use the internet efficiently to find, use, create, and share information safely and ethically? ● How can we effectively utilize image manipulation tools to design visually creative yet coherent graphics that convey impactful messages? ● How can we use spreadsheet software to effectively analyze and present data clearly and compellingly? ● How can we create multimedia presentations to deliver a message with maximum impact by strategically placing text, images, video, and audio while applying sound design principles?		

Course Enduring Understandings:	Developing efficient typing skills in middle school lays a critical foundation for meeting the increasing typing demands across academic disciplines and future careers, enabling students to communicate ideas more effectively and productively. Mastering efficient and responsible internet use enables individuals to effectively locate, utilize, generate, and share information while maintaining safety and ethical standards, fostering a culture of digital citizenship and lifelong learning. The understanding of using good design elements to create coherent documents and infographics allows for effective communication and creative expression across various subjects. Efficient skills in finding, saving, and properly citing images facilitate students' responsible and ethical use of digital media, ensuring academic integrity and respect for intellectual property. Understanding spreadsheet software enables students to analyze and present data to communicate findings effectively. Students can efficiently organize, manipulate, and visualize data to create charts and graphs by utilizing spreadsheet tools and functions. Crafting multimedia presentations that strategically incorporate text, images, video, audio, and sound design principles enables the delivery of impactful messages that engage audiences and communicate ideas effectively across various subjects.	
Duration: **Credit:**	☑ Quarter ☐ Semester ☐ Full-Year	☐ 0.5 Credit(s) ☐ 1.0 Credit(s) ☐ 1.5 Credit(s) ☑ N/A
Course Materials/Resources:	• FPS typing application • FPS networked devices, computers, and printers • FPS online image editing applications • FPS online document formatting applications • FPS online spreadsheet applications	

	• FPS online presentation applications • FPS online video editing applications
FPS Course Academic Expectation(s):	☑ Exploring and Understanding (EU) ☑ Synthesizing and Evaluating (SE) ☑ Creating and Constructing (CC) ☑ Conveying Ideas (CI) ☐ Collaborating Strategically (CS) ☑ Using Communication Tools (UCT)
Year at a Glance (Units):	**Unit 1** - Keyboarding: Developing Efficient Typing Skills (~5 - 6 weeks, throughout most of the course) **Unit 2** - Effective Internet Use: Strategies for Navigating the Digital Landscape (~2 weeks) **Unit 3** - Principles of Effective Design: Crafting Impactful Images and Infographics (~2 weeks) **Unit 4 -** Spreadsheet Fundamentals: Analyzing and Presenting Data (~2 weeks) **Unit 5 -** Designing Engaging Presentations: Strategies for Effective Multimedia Communication(~2 weeks)

Unit Number and Title:	**Unit 1** - Keyboarding: Developing Efficient Typing Skills
Duration:	Dispersed throughout most of the course. One day of introduction, then 15 - 20 minutes of individual typing time at the beginning of each class
Resource(s):	FPS typing application
Unit Overview:	Students will be able to understand the importance of efficient typing skills and demonstrate keyboarding proficiency with appropriate technique, speed, and accuracy for the middle school level.
Learning Goals	
Standard(s):	**ISTE 1.1 Empowered Learner** **1.1d** Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot current technologies, and are able to transfer their knowledge to explore emerging technologies.
Essential Question(s):	● How can developing efficient typing skills in middle school prepare us for the typing demands of middle school, high school, and future careers?
Enduring Understanding(s):	Developing efficient typing skills in middle school lays a critical foundation for meeting the increasing typing demands across academic disciplines and future careers, enabling students to communicate ideas more effectively and productively.
Learning Goal(s): *Students will know and will be able to use their learning to:* (Content/ Skills)	**Content:** (Students will know…) ● the principles of proper posture, finger placement on the home row, and efficient typing techniques. **Skills:** (Students will be able to…) ● identify and correct bad typing habits that may be hindering typing efficiency. ● demonstrate proper posture.

	● demonstrate proper finger placement on home row keys. ● demonstrate proper typing technique with the correct fingering on each key. ● effectively type with at least 90% accuracy and 18 words per minute (w.p.m.).

Unit Number and Title:	**Unit 2** - Effective Internet Use: Strategies for Navigating the Digital Landscape
Duration:	10 days (~ 2 weeks)
Resource(s):	● FPS networked computers and printers ● FPS web browser
Unit Overview:	Students will be able to comprehend the internet's fundamental physical and digital underpinnings and utilize it safely, effectively, and efficiently. Leveraging AI technologies, students will sharpen their critical thinking capabilities to differentiate factual online content from misinformation while cultivating proficiency in assessing the reliability of internet resources and digital applications.
Learning Goals	
Standard(s):	**ISTE 1.1 Empowered Learner** **1.1d** Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot current technologies, and are able to transfer their knowledge to explore emerging technologies. **ISTE 1.2 Digital Citizen** **1.2a** Students cultivate and manage their digital identity and reputation and are aware of their actions in the digital world. **1.2b** Students engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices. **1.2c** Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. **ISTE 1.3 Knowledge Constructor** **1.3b** Students evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.
Essential Question(s):	● How do we use the internet efficiently to find, use, create, and share information safely and

	ethically?
Enduring Understanding(s):	Mastering efficient and responsible internet use enables individuals to effectively locate, utilize, generate, and share information while maintaining safety and ethical standards, fostering a culture of digital citizenship and lifelong learning.
Learning Goal(s): *Students will know and will be able to use their learning to:* (Content/ Skills)	**Content:** (Students will know…) ● the structure and operation of the internet, including cables, WiFi, networks, and IP addresses. ● guidelines for proper boolean searches (using appropriate keywords and parameters). ● the fundamentals of Artificial Intelligence (AI) and its impacts on finding, using, and sharing information online. ● the importance of assessing online content critically due to the possibility of misinformation. **Skills:** (Students will be able to…) ● efficiently search for information or images on the internet using appropriate keywords and parameters. ● critically review information on the web and identify the differences between accurate information and media versus false or modified (via AI or editing software) information, images, video, and audio.

Unit Number and Title:	**Unit 3** - Principles of Effective Design: Crafting Impactful Images and Infographics
Duration:	8-10 days (~ 2 weeks)
Resource(s):	● FPS networked computers and printers ● FPS web browser ● FPS online image editing applications ● FPS online document formatting applications
Unit Overview:	Students will use online image editing tools to modify, properly cite, and share digital visuals. Students will also use appropriate digital applications to design a visually engaging and coherent infographic that effectively incorporates sound design principles.
Learning Goals	
Standard(s):	**ISTE 1.1 Empowered Learner** **1.1d** Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot current technologies, and are able to transfer their knowledge to explore emerging technologies. **ISTE 1.2 Digital Citizen** **1.2b** Students engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices. **ISTE 1.3 Knowledge Constructor** **1.3c** Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions. **ISTE 1.4 Innovative Designer** 1.4a Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems.

	ISTE 1.6 Creative Communicator **1.6a** Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. **1.6b** Students create original works or responsibly repurpose or remix digital resources into new creations. **1.6d** Students publish or present content that customizes the message and medium for their intended audiences.
Essential Question(s):	● How can we effectively utilize image manipulation tools to design visually creative yet coherent graphics that convey impactful messages?
Enduring Understanding(s):	The understanding of using good design elements to create coherent documents and infographics allows for effective communication and creative expression across various subjects. Efficient skills in finding, saving, and properly citing images facilitate students' responsible and ethical use of digital media, ensuring academic integrity and respect for intellectual property.
Learning Goal(s): *Students will know and will be able to use their learning to:* (Content/ Skills)	**Content:** (Students will know…) ● methods for utilizing image editing tools to modify images. ● guidelines for proper image citation formatting. ● the fundamental elements of good design (CCAW). ○ **C**ontrast dark and light colors among text, background, and images ○ **C**onsistency in image design, as well as font styles, colors, and sizes ○ **A**lign text to make it easier to read ○ **W**hite space effectively separates text and objects into distinguishable parts to make it easier to read. **Skills:** (Students will be able to…) ● modify and save images using good design elements. ● properly cite image sources. ● create an original infographic using good design elements to communicate a coherent message.

Unit Number and Title:	**Unit 4** - Spreadsheet Fundamentals: Analyzing and Presenting Data
Duration:	8-10 days (~ 2 weeks)
Resource(s):	● FPS networked computers and printers ● FPS online spreadsheet applications
Unit Overview:	Students will gain proficiency in spreadsheet fundamentals, including formatting, sorting and analyzing data, applying formulas and functions, and creating graphs to visualize information. By learning to choose the most effective chart types for conveying specific data trends, students will develop essential skills for organizing, processing, and communicating quantitative insights.
Learning Goals	
Standard(s):	**ISTE 1.1 Empowered Learner** **1.1d** Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot current technologies, and are able to transfer their knowledge to explore emerging technologies. **ISTE 1.2 Digital Citizen** **1.2b** Students engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices. **ISTE 1.5 Computational Thinker** **1.5b** Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making. **ISTE 1.6 Creative Communicator** **1.6b** Students create original works or responsibly repurpose or remix digital resources into new creations.

	1.6c Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations. **1.6d** Students publish or present content that customizes the message and medium for their intended audience.
Essential Question(s):	• How can we use spreadsheet software to effectively analyze and present data clearly and compellingly?
Enduring Understanding(s):	Understanding spreadsheet software enables students to analyze and present data to communicate findings effectively. Students can efficiently organize, manipulate, and visualize data to create charts and graphs by utilizing spreadsheet tools and functions.
Learning Goal(s): *Students will know and will be able to use their learning to:* (Content/ Skills)	**Content:** (Students will know…) • the structure of spreadsheets as grids of cells arranged in rows and columns. • the range of mathematical functions and analysis tools available in spreadsheet software. • the relationship between types of data and appropriate graph selection. • the fundamental elements of good design (CCAW). **Skills:** (Students will be able to…) • format, edit, sort, save, and share data in a creative and coherent spreadsheet file. • use formulas and functions in a basic spreadsheet. • format and edit data to create a visually coherent and appealing graph.

Unit Number and Title:	**Unit 5** - Designing Engaging Presentations: Strategies for Effective Multimedia Communication
Duration:	8-10 days (~ 2 weeks)
Resource(s):	Multimedia Presentation Design Software
Unit Overview:	Students will learn the principles of effective multimedia presentation design, including the strategic use of elements like text, images, audio, and transitions to convey messages cohesively. By mastering these skills, students will be able to craft engaging, well-structured presentations that incorporate sound design principles, powerful phrasing, and multimedia elements to communicate their ideas with maximum impact.
Learning Goals	
Standard(s):	**ISTE 1.1 Empowered Learner** **1.1d** Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot current technologies, and are able to transfer their knowledge to explore emerging technologies. **ISTE 1.2 Digital Citizen** **1.2b** Students engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices. **ISTE 1.3 Knowledge Constructor** **1.3a** Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits. **ISTE 1.6 Creative Communicator** **1.6a** Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication. **1.6b** Students create original works or responsibly repurpose or remix digital resources into new creations.

	1.6c Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations. **1.6d** Students publish or present content that customizes the message and medium for the intended audience. **ISTE 1.7 Global Collaborator** **1.7b** Students use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.
Essential Question(s):	● How can we create multimedia presentations to deliver a message with maximum impact by strategically placing text, images, video, and audio and applying design principles?
Enduring Understanding(s):	Crafting multimedia presentations that strategically incorporate text, images, video, audio, and design principles enables the delivery of impactful messages that engage audiences and communicate ideas effectively across various subjects.
Learning Goal(s): *Students will know and will be able to use their learning to:* (Content/ Skills)	**Content:** (Students will know…) ● the fundamental elements of good design (CCAW). ● powerful short phrases enhance clarity in presentations. ● techniques for effectively using animations and transitions with audio, images, and/or video in multimedia presentations. **Skills:** (Students will be able to…) ● add text to your multimedia project, and format to enhance readability. ● add images/video to the project, and use basic editing techniques. ● record their voice and know how to adjust the volume and improve clarity. ● choose background music that complements their message, and Learn how to adjust volume and duration. ● use different transition types, including fade, slide, and dissolve. ● implement good elements of design. ● export their multimedia project.