



Diocese of Greensburg Curriculum Technology Grade 4

Unit	Standards	Content	Skills
<p>Digital Citizenship</p>	<p>ISTE: Educational Technology (2016) All Grades</p> <hr/> <p>2. Digital Citizen Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical. Students:</p> <p>a. cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.</p> <p>b. engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.</p> <p>c. demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.</p> <p>d. manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.</p> <p>2016 ISTE Standards Students 2016 ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.</p>	<ul style="list-style-type: none"> • Digital footprint • Cyber bullying • Upstander • Bystander • Passwords and usernames • Digital citizenship • Online safety • Media balance 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Demonstrate use of proper etiquette when using the internet. • Identify responsible and positive, legal and ethical behavior when using technology and social networks. • Define digital footprint and identify what they can and cannot control online. • Explain the strategies for safe and efficient use of technology. • Describe the potential risks and dangers associated with various forms of online communication. • Evaluate their media use and plan for media balance.

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<p>Web Accounts</p>	<p>ISTE: Educational Technology (2016) ISTE: All Grades</p> <hr/> <p>2. Digital Citizen Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical. Students:</p> <p>a. cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.</p> <p>d. manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.</p> <p>2016 ISTE Standards Students 2016 ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.</p>	<ul style="list-style-type: none"> • File management • Password management • Username management • Public information • Private information • Bookmark/favorite 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Develop a safe and secure username and password. • Describe the difference between public and private information. • Manage and organize files and accounts. • Use appropriate tools correctly.
<p>Basic Computer Skills and Keyboarding</p>	<p>ISTE: Educational Technology (2016) All Grades</p> <hr/> <p>1. Empowered Learner Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. Students:</p> <p>d. 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.</p> <p>6. Creative Communicator Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students:</p>	<ul style="list-style-type: none"> • Login • Username • Password • Icon • Application • Menu • Cloud • Files • Symbols (home, refresh, favorite) • Computer parts 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Log into and out of programs. • Use menus, applications, and icons to access programs. • Save and manage information in files and/or the cloud. • Identify universal symbols, menu bars, and computer parts.

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	<p>a. choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.</p> <p>d. publish or present content that customizes the message and medium for their intended audiences.</p> <p>2016 ISTE Standards Students 2016 ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.</p>		
<p>Word Processing</p>	<p>ISTE: Educational Technology (2016) All Grades</p> <hr/> <p>6. Creative Communicator Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students:</p> <p>a. choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.</p> <p>b. create original works or responsibly repurpose or remix digital resources into new creations.</p> <p>c. communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.</p> <p>d. publish or present content that customizes the message and medium for their intended audiences.</p> <p>2016 ISTE Standards Students 2016 ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.</p>	<ul style="list-style-type: none"> • Copy • Paste • Highlight • Insert • Format • Save • Save As • Edit • Print • Font • Size • Style • Line spacing • Margins • Graphics/Images • Toolbar • Keyboard Shortcuts 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Edit text into a document. • Copy and paste. • Insert and manipulate a graphic. • Highlight text. • Use the menu toolbar to format, edit, print, and change font. • Save assignments. • Employ keyboard shortcuts.

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<p>Research</p>	<p>ISTE: Educational Technology (2016) All Grades</p> <hr/> <p>3. Knowledge Constructor Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others. Students:</p> <p>a. plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.</p> <p>b. evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.</p> <p>c. curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.</p> <p>d. build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.</p> <p>2016 ISTE Standards Students 2016 ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.</p>	<ul style="list-style-type: none"> • Address bar • Search engine • Web Browser • Forward/backward arrows • Search results • Key words • Sources • Copyright • Plagiarism • Favorite • Bookmarks 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Cite sources and images. • Define plagiarism. • Write information in their own words. • Evaluate sources. • Enter website address into address bar. • Navigate using back and forward arrows.

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<p>Coding</p>	<p>PA: Science, Technology and Engineering (2012) PA: Grade 4</p> <hr/> <p>3.4. Technology and Engineering Education 3.4.A. The Scope of Technology Pennsylvania’s public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</p> <p>3.4.4.A1. Understand that tools, materials, and skills are used to make things and carry out tasks.</p> <p>3.4.4.A2. Understand that systems have parts and components that work together.</p> <p>3.4.4.A3. Describe how various relationships exist between technology and other fields.</p> <p>3.4.C. Technology and Engineering Design Pennsylvania’s public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</p> <p>3.4.4.C1. Understand that there is no perfect design.</p> <p>3.4.4.C2. Describe the engineering design process: Define a problem. Generate ideas. Select a solution and test it. Make the item. Evaluate the item. Communicate the solution with others. Present the results.</p> <p>3.4.4.C3. Explain how asking questions and making observations help a person understand how things work and can be repaired.</p> <p>ISTE: Educational Technology (2016) All Grades</p> <hr/> <p>4. Innovative Designer Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions. Students:</p>	<ul style="list-style-type: none"> • Code blocks • Repeat • Algorithm • Debugging • Sequencing • Loops • Conditionals • Condition • Troubleshoot 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Follow steps to debug and troubleshoot. • Sequence and break down commands. • Define condition and conditional. • Determine whether a conditional is met.

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	<p>d. exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.</p> <p>5. Computational Thinker Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:</p> <p>c. break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.</p> <p>d. understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.</p> <p>Copyright © 2015 Commonwealth of Pennsylvania. All Rights Reserved</p>		
<p>Spreadsheets</p>	<p>ISTE: Educational Technology (2016) All Grades</p> <hr/> <p>5. Computational Thinker Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:</p> <p>a. formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.</p> <p>b. 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.</p> <p>c. break problems into component parts, extract key information, and develop descriptive models to</p>	<ul style="list-style-type: none"> • Row • Cell • Column • Sheet • Values • Label • Chart • Graph • Data • Spreadsheet • Calculate • Formula • Format 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Identify cell, row, column, and sheet. • Enter and delete text and numbers within a cell. • Create a graph in a spreadsheet. • Collect and input data. • Select data within a spreadsheet. • Change the font, size, and color of text within a cell. • Perform calculations using formulas and mathematical symbols.

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	<p>understand complex systems or facilitate problem-solving.</p> <p>d. understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.</p> <p>2016 ISTE Standards Students 2016 ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.</p>		
<p>Presentations</p>	<p>ISTE: Educational Technology (2016) All Grades</p> <hr/> <p>6. Creative Communicator Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students:</p> <p>a. choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.</p> <p>7. Global Collaborator Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. Students:</p> <p>b. use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.</p> <p>c. contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.</p> <p>2016 ISTE Standards Students 2016 ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.</p>	<ul style="list-style-type: none"> • Presentation • Slide • Graphic • Transition • Animation • Format • Background • Design • Theme 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Design a presentation using a presentation tool. • Organize content in a presentation. • Create, edit, and format text on a slide. • Insert and edit graphics and data. • Insert videos into presentations. • Reference sources. • Use animations and transitions appropriately and moderately. • Format background and themes of a presentation.

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<p>Digital Design</p>	<p>ISTE: Educational Technology (2016) All Grades</p> <hr/> <p>3. Knowledge Constructor Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others. Students:</p> <p>c. curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.</p> <p>d. build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.</p> <p>4. Innovative Designer Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions. Students:</p> <p>a. know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.</p> <p>b. select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.</p> <p>6. Creative Communicator Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students:</p> <p>b. create original works or responsibly repurpose or remix digital resources into new creations.</p> <p>c. communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.</p>	<ul style="list-style-type: none"> • Multimedia • Appropriate • Audience • Voice • Topic • Purpose • Content 	<p>The students will be able to:</p> <ul style="list-style-type: none"> • Consider their audience when using digital designs. • Use appropriate listening and presentation skills. • Plan and deliver a multimedia presentation that is appropriate to the purpose, topic, and content. • Choose the appropriate tool for the task.

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	<p>d. publish or present content that customizes the message and medium for their intended audiences.</p> <p>7. Global Collaborator Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. Students:</p> <p>b. use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.</p> <p>c. contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.</p> <p>2016 ISTE Standards Students 2016 ISTE Standards for Students, ©2016, ISTE® (International Society for Technology in Education), iste.org. All rights reserved.</p>		

