Jefferson County Public Schools
www.jcps.ky.net

Teacher
Technology
Framework

Kentucky
Program
of Studies

National
Technology
Standards

COMPUTER APPLICATIONS SKILLS CONTINUUM

Jefferson County
Public Schools
Shaping the Future

Computer Applications Skills Continuum

Jefferson County Public Schools prepares students to graduate with basic technology skills. In order to guide and monitor their progress while acquiring those skills, JCPS implemented the Computer Applications Skills Continuum and the Computer Applications Skills Assessment throughout the district.

The *Computer Applications Skills Continuum* is designed to guide students in grades K-12 in their acquisition of basic technology skills based on the National Education Technology Standards (ISTE) and aligned with the Kentucky Program of Studies.

To measure student progress in reaching the goals of the *Computer Applications Skills Continuum* , a *Computer Applications Skills Assessment* is administered in grades P4, 5, 8, and 10, or in an approved course.

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Grade P1

STANDARD ONE

ISTE/NETS: Creativity and Innovation

*Students demonstrate creative thinking, construct knowledge, and develop
innovative products and processes using technology. Students:*

    a. *apply existing knowledge to generate new ideas, products, or processes.*
    b. *create original works as a means of personal or group expression.*
    c. *use models and simulations to explore complex systems and issues.*
    d. *identify trends and forecast possibilities.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

*Students demonstrate a sound understanding of the nature and operations of technology systems. Students use
technology to learn, to communicate, to increase productivity and become competent users of technology.
Students manage and create effective oral, written and multimedia communications in a variety of forms
and contexts.*

Students will be introduced to and practice:	
KEYBOARDING	
Use proper posture.	Proper body position (Sit up straight.)
	Proper position of keyboard (center with body)
	Correct wrist & elbow placement
Use two hands while typing.	Left hand should be used for keys on the left side of keyboard, and right hand used for keys on the right side.
Key in Network ID and Password.	
Use special keys.	Enter
	Ctrl/Alt/Delete
	Esc (escape)
Use number keys.	

Students will be introduced to and practice:

WORD PROCESSING	
Recognize a word processing document.	
Identify the purposes of a word processing document.	
Answer questions relating to a word processing document.	
Edit a word processing document.	
Use upper and lower case letters appropriately.	
Use correct spacing.	One space between words
	One space after punctuation
	Enter key to create blank lines
	Delete key to delete individual letter/character to right
	Backspace to delete individual letter/character to the left
	Backspace or Delete key to delete blank lines.
Use the tab key to indent paragraph.	
Point and click with mouse.	
Place the cursor for editing purposes.	
Highlight text and apply changes to text.	Change the font.
	Change the size of text.
	Change the text color.
Apply style changes.	Bold

STANDARD TWO

ISTE/NETS: Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

  a. *interact, collaborate, and publish with peers, experts, or others, employing a variety of digital environments and media.*
  b. *communicate information and ideas effectively to multiple audiences using a variety of media and formats.*
  c. *develop cultural understanding and global awareness by engaging with learners of other cultures.*
  d. *contribute to project teams to produce original works or solve problems.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will be introduced to and practice:	
Use templates to present written communication.	

STANDARD THREE

ISTE/NETS: Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

 a. *plan strategies to guide inquiry.*

 b. *locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.*

 c. *evaluate and select information sources and digital tools based on the appropriateness to specific tasks.*

 d. *process data and report results.*

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will be introduced to and practice:	
Demonstrate knowledge of appropriate use of the Internet.	Education-based research (e.g., gathering data)
Identify and/or use Internet Terms.	Home Page
	Favorites/Bookmarks
	Home Icon
	Address Bar
Identify the JCPS Home Page.	
Use multimedia resources to support learning (e.g., interactive books, educational software, elementary multimedia).	
Discuss the Internet as a source of information at school, home, and at the public library.	

STANDARD FOUR

ISTE/NETS: Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

a. identify and define authentic problems and significant questions for investigation.
b. plan and manage activities to develop a solution or complete a project.
c. collect and analyze data to identify solutions and/or make informed decisions.
d. use multiple processes and diverse perspectives to explore alternative solutions.

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will be introduced to and practice:	
Employ technology in the development of strategies for solving problems in the real-world as a team or individually.	Use an electronic database to gather resources to answer essential questions.
Use appropriate technology tools to successfully engage in higher-order thinking activities.	

STANDARD FIVE

ISTE/NETS: Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. *advocate and practice safe, legal, and responsible use of information and technology.*
b. *exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.*
c. *demonstrate personal responsibility for lifelong learning.*
d. *exhibit leadership for digital citizenship.*

Kentucky Teacher Technology Framework -
Big Idea: Safety and Ethical/Social Issues

Students understand safe and ethical/social issues related to technology. Students practice and engage in safe, responsible and ethical use of technology. Students develop positive attitudes toward technology use that supports lifelong learning, collaboration, personal pursuits and productivity.

Students will be introduced to and practice:	
Acknowledge ownership of own work (e.g., Put name on work).	
Sign and discuss the JCPSNet User Agreement Form.	
Explain that a good citizen is a person who follows rules in a community.	
Discuss how a stranger can pretend to be a friend in cyberspace.	
Identify a stranger as someone whom you and your parents don't know.	
Discuss and follow the five Safety Tips published by the FBI for protecting oneself online.	Never give out personal information such as your name, home address, school name, or telephone number in a chat room or on bulletin boards. Also, never send a picture of yourself to someone you chat with on the computer without your parent's permission.
	Never write to someone who has made you feel uncomfortable or scared.
	Never meet someone or have them visit you without the permission of your parents.
	Tell your parents right away if you read anything on the Internet that makes you feel uncomfortable.
	Remember that people online may not be who they say they are. Someone who says that "she" is a "12-year-old girl" could really be an older man.
Explain why a password needs to be kept secret.	

STANDARD SIX

ISTE/NETS: Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

a. *understand and use technology systems.*
b. *select and use applications effectively and productively.*
c. *troubleshoot systems and applications.*
d. *transfer current knowledge to learning of new technologies.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will be introduced to and practice:	
Distinguish between hardware and software.	
Identify the following hardware: Monitor, Mouse.	
Describe and demonstrate proper care of equipment (e.g., keep food, drinks and magnets away from equipment, clean hands, not writing on equipment).	
Start up and shut down computer.	
Log on/in.	Ctrl+Alt+Del
	User ID/Password
Use mouse click to make selections.	
Use click and drag to move items on a page.	
Use right and left click when applicable.	
Select an item from the menu bar.	
Select an option from drop down menu.	
Select an item from a toolbar.	

Students will be introduced to and practice:	
Open applications (e.g., File Menu: Open, Start Menu: Program Files).	
Quit applications (e.g., File Menu: Quit/Exit, Close X on Windows).	
Identify open application on the taskbar.	
Close document, leaving application open.	
Save with assistance.	
Identify the recycle bin and explain its purpose.	
Open a new document.	
Printing with assistance.	
REMOVABLE MEDIA	
Care and Handling:	Compact Disc, Digital Video Disc, and Data Disk
	Load correctly
	Remove correctly
	Explain the use of a Disk, CD and the use of a DVD.
FILES	
Navigate to open a file from different sources.	Application
Use basic troubleshooting techniques.	Determine if all equipment is turned on and plugged in.

Grade P2

STANDARD ONE

ISTE/NETS: Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

a. *apply existing knowledge to generate new ideas, products, or processes.*
b. *create original works as a means of personal or group expression.*
c. *use models and simulations to explore complex systems and issues.*
d. *identify trends and forecast possibilities.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
KEYBOARDING	
Identify home row keys.	
Use thumbs for space bar.	
Use home row keys (Finger Positioning).	Use correct finger positioning.
Use keys other than home row (e.g., m, c, i , b, p, w, g, q, u).	
Keyboard with a speed of 10 wpm (Mastery level expected at P4, but not tested).	
WORD PROCESSING	
Select text. Apply Style Changes to text.	Underline
	Italics
Use Spell Check to check a document.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Insert picture/clip art.	
Format picture/clip art.	
Align picture/clip art.	
SPREADSHEET	
Define the purpose of a spreadsheet.	
Recognize a spreadsheet document.	Cell and Cell Address
	Row
	Column
	Label
Answer questions using a spreadsheet.	
Given specific directions, students will enter data into a spreadsheet.	Using a template
	Titles
	Column Labels
	Row Labels
Identify the active cell.	
Students will move cell data.	Cut
	Copy
	Paste
	Delete
Students will format data in a cell.	Font
	Size
	Color
	Style
Use a graph to make predictions as a class.	
Charts / Graphs:	Answer questions using a computer-generated chart/graph.
	Identify the purpose of charting data.
PRESENTATION	
Create multimedia projects individually or as a class activity using age-appropriate software.	
Create a simple presentation.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Insert:	New Slide
	Textboxes
	Picture from Clip Art
Insert:	Picture from a File
	Word Art
Format:	Background color
	Slide Design
	Slide Show
Delete:	Slide

STANDARD TWO

ISTE/NETS: Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a. *interact, collaborate, and publish with peers, experts, or others, employing a variety of digital environments and media.*
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Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Define E-mail.	
Understand and use netiquette.	Use language that does not include profanity, socially insensitive remarks or insults.
PRESENTATION	
Explain the purpose of a presentation (e.g., communication, show knowledge of content subject, share information and publish).	
Create and publish products collaboratively for audiences inside and outside the classroom using technology tools (e.g., multimedia or presentation).	
Use templates to present written communication.	

STANDARD THREE

ISTE/NETS: Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

a. *plan strategies to guide inquiry.*
b. *locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.*
c. *evaluate and select information sources and digital tools based on the appropriateness to specific tasks.*
d. *process data and report results.*

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Demonstrate knowledge of appropriate use of the Internet.	Education-based research (e.g., gathering data)
Identify and/or use Internet Terms.	Home Page
	Favorites/Bookmarks
	Home Icon, Home Button
	Address Bar
	Links
	Back
	Forward
	Stop
	Refresh
	World Wide Web
	Browser
	URL

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Identify parts of a URL.	http
	www
Open web browser; use the Home, Back, and Forward buttons.	
Identify the JCPS Home Page.	
Enter a URL.	
Understand the function of links.	
Use links (e.g., displayed in text and graphic format).	
Demonstrate knowledge of Information Technology (e.g., JCPS Online Scrimmages, Quizzes, Assessments).	
Use multimedia resources to support learning (e.g., interactive books, educational software, elementary multimedia).	
Discuss the Internet as a source of information at school, home, and at the public library.	

STANDARD FOUR

ISTE/NETS: Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

 a. *identify and define authentic problems and significant questions for investigation.*
 b. *plan and manage activities to develop a solution or complete a project.*
 c. *collect and analyze data to identify solutions and/or make informed decisions.*
 d. *use multiple processes and diverse perspectives to explore alternative solutions.*

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

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Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Employ technology in the development of strategies for solving problems in the real-world as a team or individually.	Use an electronic database to gather resources to answer essential questions.
Use appropriate technology tools to successfully engage in higher-order thinking activities.	

STANDARD FIVE

ISTE/NETS: Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. *advocate and practice safe, legal, and responsible use of information and technology.*
b. *exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.*
c. *demonstrate personal responsibility for lifelong learning.*
d. *exhibit leadership for digital citizenship.*

Kentucky Teacher Technology Framework -
Big Idea: Safety and Ethical/Social Issues

Students understand safe and ethical/social issues related to technology. Students practice and engage in safe, responsible and ethical use of technology. Students develop positive attitudes toward technology use that supports lifelong learning, collaboration, personal pursuits and productivity.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Acknowledge ownership of own work (e.g., Put name on work).	
Explain that one must have permission to use another person's work or any part of that person's work.	
Identify the copyright symbol.	
Sign and discuss the JCPSNet User Agreement Form.	
Explain that a good citizen is a person who follows rules in a community.	
Discuss how a stranger can pretend to be a friend in cyberspace.	
Identify a stranger as someone whom you and your parents don't know.	
Identify the characteristics of personal information.	
Explain potential risks to personal safety when supplying personal information, choosing a screen name, and selecting a password.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Discuss the importance of ethical, responsible, and safe behavior when using networked digital information.	
As a class/group/or individual, recognize, discuss and model responsible and safe behavior using online resources.	
Describe what to do when an unintended website is entered.	
Discuss and follow the five Safety Tips published by the FBI for protecting oneself online:	Never give out personal information such as your name, home address, school name, or telephone number in a chat room or on bulletin boards. Also, never send a picture of yourself to someone you chat with on the computer without your parent's permission.
	Never write to someone who has made you feel uncomfortable or scared.
	Never meet someone or have them visit you without the permission of your parents.
	Tell your parents right away if you read anything on the Internet that makes you feel uncomfortable.
	Remember that people online may not be who they say they are. Someone who says that "she" is a "12-year-old girl" could really be an older man.
Explain why a password needs to be kept secret.	
Discuss the importance of being a responsible citizen when using technology.	
Participate in Internet projects.	
Use internet safety skills.	
Respect other people's point of view and ideas when completing a class project.	
Explain why computers and/or other technologies are used for learning.	
Define Cyberbullying.	
Compare and contrast the critical attributes of bullying (real world and virtual world).	
Understand the procedures of how to report cyberbullying.	

STANDARD SIX

ISTE/NETS: Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

a. *understand and use technology systems.*

b. *select and use applications effectively and productively.*

c. *troubleshoot systems and applications.*

d. *transfer current knowledge to learning of new technologies.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Distinguish between hardware and software.	Identify disk drive, external disk drive, projector.
Describe and demonstrate proper care of equipment (e.g., keep food, drinks and magnets away from equipment, clean hands, not writing on equipment).	
APPLICATIONS	
Create products for content area assignments using appropriate technology.	
Follow on-screen directions.	
Use proofreading and electronic editing skills.	
Start up and shut down computer.	
Log on/in:	Ctrl-Alt-Del
	User ID/Password
Select an item from the menu bar.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Select an item from a toolbar.	
Open applications (e.g., File Menu: Open, Start Menu: Program Files).	
Quit applications (e.g., File Menu: Quit/Exit, Close X on Windows).	
Close document, leaving application open.	
Save with assistance.	
Open a new document.	
Print with assistance.	
Print documents.	
REMOVABLE MEDIA	
Care and Handling:	Compact Disc, Digital Video Disc, and Data Disk
	Load correctly.
	Remove correctly.
	Explain the use of a Disk, CD and the use of a DVD.
FILES	
Navigate to open a file from different sources.	Application
	Disk
	CD
Use basic troubleshooting techniques.	Determine if all equipment is turned on and plugged in.
	Check mouse connection.
	Check keyboard connection.
Print with Options.	Print a specific # of copies.

Grade P3

STANDARD ONE

ISTE/NETS: Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

a. *apply existing knowledge to generate new ideas, products, or processes.*
b. *create original works as a means of personal or group expression.*
c. *use models and simulations to explore complex systems and issues.*
d. *identify trends and forecast possibilities.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
KEYBOARDING	
Use appropriate fingers on left shift, right shift, delete, tab.	
Use caps lock key properly.	
Use punctuation keys correctly.	. Period
	' Apostrophe
	, Comma
	" Quotation Marks
	; Semicolon
	: Colon
WORD PROCESSING	
Use correct spacing.	Set Line Spacing.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
WORD PROCESSING	
Set Page Margins.	
Change page orientation (landscape/portrait).	
Format document into columns.	
Insert a page number.	
Utilize Toolbars.	Drawing
	Standard
	Formatting
Create:	Brochure
	Newsletter
SPREADSHEET	
Given specific directions, students will enter data into a spreadsheet.	Use a blank spreadsheet.
Students will move cell data.	Insert Row(s)
	Insert Column(s)
	Insert a Chart
	Delete Row(s)
	Delete Column(s)
	Move Data in Columns and/or Rows.
Students will format data in a cell.	Numbers
	Currency
Students will select data in a spreadsheet.	Select cells, entire row, entire column, and cells for graph
Create a basic chart/graph.	Column and/or Bar
DATABASE	
Define Database.	Record
	Field
Search (browse) a database to retrieve specific information.	
Use logical operators to refine searches (e.g., = < > And Or Not).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
DATABASE	
Answer comprehension questions using a given electronic resource.	
Analyze data from an electronic resource and present conclusions.	

STANDARD TWO

ISTE/NETS: Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a. *interact, collaborate, and publish with peers, experts, or others, employing a variety of digital environments and media.*

b. *communicate information and ideas effectively to multiple audiences using a variety of media and formats.*

c. *develop cultural understanding and global awareness by engaging with learners of other cultures.*

d. *contribute to project teams to produce original works or solve problems.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
TELECOMMUNICATIONS	
Define Telecommunications.	
Identify how the community uses telecommunications in everyday activities (e.g., business, library, educational institutions, and government).	
E-MAIL	
Define E-mail.	
Define Netiquette.	
Understand and use netiquette.	Use language that does not include profanity, socially insensitive remarks or insults.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
PRESENTATION	
Explain the purpose of a presentation (e.g., communication, show knowledge of subject content, share information and publish).	
Use templates to present written communication.	
Use technology communication to participate in online group projects and learning activities (e.g., CSILE, JCPS Online).	
Create and publish products collaboratively for audiences inside and outside the classroom using technology tools (e.g., multimedia or presentation).	

STANDARD THREE

ISTE/NETS: Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

a. *plan strategies to guide inquiry.*
b. *locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.*
c. *evaluate and select information sources and digital tools based on the appropriateness to specific tasks.*
d. *process data and report results.*

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Demonstrate knowledge of appropriate use of the Internet.	Education-based research (e.g., gathering data)
	Define appropriate, inappropriate websites.
Identify and/or use Internet Terms.	Home Page
	Favorites/Bookmarks
	Home Icon
	Address Bar
	Links
	Back
	Forward
	Stop
	Refresh
	World Wide Web

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Identify and/or use Internet Terms.	Search Engine
	URL
Identify parts of a URL.	http
	www
Open web browser & use the Home, Back, & Forward buttons.	
Identify the JCPS Home Page.	
Enter a URL.	
Understand the function of links.	
Use links (e.g., displayed in text and graphic format).	
Demonstrate knowledge of Information Technology (e.g., JCPS Online Scrimmages, Quizzes, Assessments).	
Use multimedia resources to support learning (e.g., interactive books, educational software, elementary multimedia).	
Discuss the Internet as a source of information at school, home, and at the public library.	

STANDARD FOUR

ISTE/NETS: Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources: Students:

a. *identify and define authentic problems and significant questions for investigation.*
b. *plan and manage activities to develop a solution or complete a project.*
c. *collect and analyze data to identify solutions and/or make informed decisions.*
d. *use multiple processes and diverse perspectives to explore alternative solutions.*

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Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Employ technology in the development of strategies for solving problems in the real-world as a team or individually.	Use an electronic database to gather resources to answer essential questions.
Use appropriate technology tools to successfully engage in higher-order thinking activities.	

STANDARD FIVE

ISTE/NETS: Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

 a. *advocate and practice safe, legal, and responsible use of information and technology.*
 b. *exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.*
 c. *demonstrate personal responsibility for lifelong learning.*
 d. *exhibit leadership for digital citizenship.*

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Big Idea: Safety and Ethical/Social Issues

Students understand safe and ethical/social issues related to technology. Students practice and engage in safe, responsible and ethical use of technology. Students develop positive attitudes toward technology use that supports lifelong learning, collaboration, personal pursuits and productivity.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Acknowledge ownership of own work (e.g., put name on work).	
Explain that one must have permission to use another person's work or any part of that person's work.	
Identify the copyright symbol.	
Sign and discuss the JCPSNet User Agreement Form.	
Explain that a good citizen is a person who follows rules in a community.	
Discuss how a stranger can pretend to be a friend in cyberspace.	
Identify a stranger as someone whom you and your parents don't know.	
Identify the characteristics of personal information.	
Explain potential risks to personal safety when supplying personal information, choosing a screen name, and selecting a password.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Discuss the importance of ethical, responsible, and safe behavior when using networked digital information (computer ethics).	
As a class, group, or individual, recognize, discuss and model responsible and safe behavior using online resources.	
Describe what to do when an unintended website is entered.	
Discuss and follow the five Safety Tips published by the FBI for protecting oneself online.	Never give out personal information such as your name, home address, school name, or telephone number in a chat room or on bulletin boards. Also, never send a picture of yourself to someone you chat with on the computer without your parent's permission.
	Never write to someone who has made you feel uncomfortable or scared.
	Never meet someone or have them visit you without the permission of your parents.
	Tell your parents right away if you read anything on the Internet that makes you feel uncomfortable.
	Remember that people online may not be who they say they are. Someone who says that "she" is a "12-year-old girl" could really be an older man.
Explain why a password needs to be kept secret.	
Discuss the importance of being a responsible citizen when using technology.	
Participate in Internet projects.	
Use internet safety skills.	
Respect other people's point of view and ideas when completing a class project.	
Explain why computers and/or other technologies are used for learning.	
Compare and contrast the critical attributes of bullying (real world and virtual world).	
Understand the procedures of how to report cyberbullying.	

STANDARD SIX

ISTE/NETS: Technology Operations and Concepts
Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:
- a. *understand and use technology systems.*
- b. *select and use applications effectively and productively.*
- c. *troubleshoot systems and applications.*
- d. *transfer current knowledge to learning of new technologies.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity
Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Distinguish between hardware and software.	Identify CPU, Hand-held computer, RAM, Palmtop
Describe and demonstrate proper care of equipment (e.g., keep food, drinks and magnets away from equipment, clean hands, not writing on equipment).	
APPLICATIONS	
Create products for content area assignments using appropriate technology.	
Follow on-screen directions.	
Use proofreading and electronic editing skills.	
Start up and shut down computer.	
Log on/in.	Ctrl+Alt+Del
	User ID/Password

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Select an item from a toolbar.	
Select an item from the menu bar.	
Open applications (e.g., File Menu: Open, Start Menu: Program Files).	
Quit applications (e.g., File Menu: Quit/Exit, Close X on Windows).	
Close document, leaving application open.	
Save with assistance.	
Open a new document.	
Print with assistance.	
Print documents.	
REMOVABLE MEDIA	
Care and Handling:	Compact Disc, Digital Video Disc, and Data Disk
	Load correctly.
	Remove correctly.
	Explain the use of a Disk, CD and the use of a DVD.
FILES	
Navigate to open a file from different sources.	Application
	Disk
	CD
	Desktop
Identify file formats.	.doc .xls .ppt
Save documents as a variety of file types to move data across platforms.	.doc .xls .ppt
Use basic troubleshooting techniques.	Determine if all equipment is turned on and plugged in.
	Check mouse connection.
	Check keyboard connection.
	Check plugs/cables (plug in both ends; check for loose plugs).

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Print with options.	Print a specific page.
	Print a specific number of copies.
	Change page orientation.

Grade P4

STANDARD ONE

ISTE/NETS: Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

a. apply existing knowledge to generate new ideas, products, or processes.
b. create original works as a means of personal or group expression.
c. use models and simulations to explore complex systems and issues.
d. identify trends and forecast possibilities.

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Explain the uses of productivity tools.	
Explain an integrated software package.	
KEYBOARDING	
Use correct keyboarding posture.	Proper body position (Sit up straight.)
	Proper position of keyboard (center with body)
	Correct wrist & elbow placement
Use two hands while typing.	Left hand should be used for keys on the left side of keyboard, and right hand used for keys on the right side.
Use thumbs for space bar.	
Use home row keys (Finger Positioning).	Identify the home row keys.
Use keys other than home row.	(e.g., m c, b, p, w, g, q, u)

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Use special key.	Esc (escape)
Keyboard with a speed of 10 wpm.	
WORD PROCESSING	
Recognize a word processing document.	
Identify the purposes of a word processing document.	
Answer questions relating to a word processing document.	
Edit a word processing document.	
Use upper and lower case letters appropriately.	
Use correct spacing.	One space between words
	One space after punctuation
	Enter key to create blank lines
	Delete or Backspace key to delete blank lines.
	Delete key to delete individual letter/character the to right
	Backspace to delete individual letter/character to the left
Apply changes to Text.	Change the font.
	Change the size of text.
	Change the text color.
Apply Style Changes.	Bold
	Underline
	Italics
Set alignments.	Center
	Left
	Right
Use list formats.	Bulleted
	Numbered
Use Spell Check to check a document.	
Format a document with two or more columns.	
Insert Breaks.	Page, Section, Column

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Create Header.	
Create Footer.	
Show/Hide Invisibles. ¶	
Use the tab key to indent paragraph.	
Insert picture/clip art.	
Format/align picture/clip art.	
SPREADSHEET	
Recognize a spreadsheet document.	
Identify purposes of a spreadsheet.	Identify entry bar/formula bar.
Answer questions using a spreadsheet.	
Given specific directions, students will enter data into a spreadsheet.	Formulas
Move cell data.	Cut
	Copy
	Paste
	Delete
Format cell data.	Font
	Size
	Color
	Style
	Alignment
Format cells.	Row Height
	Column Width
	Wrap Text
	Borders
	Fill Colors
Freeze row and column headings.	With no column and row headings
Display and print spreadsheet.	With and without Gridlines
Formulas:	Explain the concept of formulas.
	Identify the symbols used in formulas = + - * / ( ).
	Create formulas using + - * /.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Formulas:	Use Sum and AutoSum.
Print specific and/or non-consecutive pages.	
Charts/Graphs - Answer questions using a computer-generated chart/graph.	
As a class, introduce electronic graphic organizers (Venn diagrams).	
Create a basic chart/graph.	Resize Charts
	Move Charts
Use a graph as a class to make predictions.	
Use a prepared spreadsheet to create a graph.	
As a class, use a graph to produce results and make informed decisions to answer real-life questions.	
Format various parts of chart.	Title the Chart.
	Label the X and Y axes.
	Use Data Labels.
Format the text appearance in a chart.	Font and Size
	Style
	Color
PRESENTATION	
Create multimedia projects individually or as a class activity using age-appropriate software.	
Create a simple presentation.	
Insert:	New Slide
	Textboxes
	Picture from Clip Art
	Picture from a File
	Word Art
	Diagram
	Movie
	Sound
	Table
	Image

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Insert:	Slide Numbers
	Date and Time
	Hyperlink
Format:	Background color
	Master Slide
	Slide Design, design theme
	Bullets and Numbering
	Text (appropriate font, size, and color)
	Alignment
	Picture (size and shape)
Set up a Slide Show.	
Setup Slide Transition.	
Delete Slide.	
Choose appropriate layout.	Title Slide
	Bulleted List
	Slide order
Use rules of good presentations.	Content is clearly stated.
	Design is pleasing to the eye.
	Design is consistent.
DATABASE	
Identify fields that make up a single record.	
Enter information into appropriate fields.	
Answer comprehension questions using a given electronic resource.	
Analyze data from an electronic resource and present conclusions.	
Analyze data from a data table.	
Sort by field type.	
Sort by descending and ascending order.	
Navigate through records.	
Learn the similarities of a database and a spreadsheet by practicing database skills using a spreadsheet.	

STANDARD TWO

ISTE/NETS: Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a. *interact, collaborate, and publish with peers, experts, or others, employing a variety of digital environments and media.*

b. *communicate information and ideas effectively to multiple audiences using a variety of media and formats.*

c. *develop cultural understanding and global awareness by engaging with learners of other cultures.*

d. *contribute to project teams to produce original works or solve problems.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
TELECOMMUNICATIONS	
Identify how the community uses telecommunications in everyday activities (e.g., business, library, educational institutions, and government).	
List advantages and disadvantages of using telecommunications.	
Describe ways in which telecommunications tools promote collaboration, research, publication, communication and productivity.	
Explain the use of cell phones.	
Explore finished products that have been electronically created (e.g., graphs, charts, signs, banners, cards, portfolio pieces, technical writing).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
As a class, participate in collaborative problem-solving activities using interactive communications and online resources (e.g., e-mail, online).	
Design, create, and participate in projects which will be published or monitored on the web by the teacher.	
E-MAIL	
Define E-mail.	
Understand and use netiquette.	Use language that does not include profanity, socially insensitive remarks or insults.
Give examples of the appropriate use of e-mail and/ or purpose of e-mail (e.g., ask an expert, permission to use others' work, collaboration with peers around the world, communication, submit assignments to teachers, communicate with prospective colleges).	
Give examples of the inappropriate use of e-mail (e.g., chain mail, flaming, phishing, personal gain, junk mail).	
Explain why a password needs to be kept secret.	
PRESENTATION	
Explain the purpose of a presentation (e.g., communication, show knowledge of subject content, share information and publish).	
Create and publish products collaboratively for audiences inside and outside the classroom using technology tools (e.g., multimedia or presentation).	
Use technology communication to participate in online group projects and learning activities (e.g., CSILE, JCPS Online).	
Use interactive communications to access remote information, and to communicate with others in support of direct and independent learning.	
Create and/or modify multimedia projects individually or as a class activity using age-appropriate software (e.g., Microsoft Photo Story).	
Use templates to present written communication.	
Identify and discuss the use of multimedia tools to report content area information (e.g., United Streaming, Brain Pop).	

STANDARD THREE

ISTE/NETS: Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:
a. plan strategies to guide inquiry.
b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of
sources and media.
c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
d. process data and report results.

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Demonstrate knowledge of appropriate use of the Internet.	Education-based research (e.g., gathering data)
Identify and/or use Internet Terms.	Home Page
	Favorites/Bookmarks
	Home Icon
	Address Bar
	Links
	Back
	Forward
	Stop
	Refresh
	World Wide Web (Information Highway)
	URL

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Identify and/or use Internet Terms.	Search Engine
	Keywords
Identify parts of a URL.	http
	www
	.com
	.gov
	.edu
	.org
	.html
Open web browser & use the Home, Back, & Forward buttons.	
Identify the JCPS Home Page.	
Enter a URL.	
Favorites/Bookmarks:	Add favorites/bookmarks.
	Remove a favorite/bookmark.
	Create folders to organize favorites.
Understand the function of links.	
Use links (e.g., displayed in text and graphic format).	
Use search engine(s) to find specific information.	
Use keywords when searching.	
As a class, discuss when an Internet search may be effective.	
Use appropriate bibliographic citations for electronic resources (e.g., web page, data source, picture, music, video, journal article).	
Define Plagiarism.	
Critique web resources for validity of information.	Reliability (Does it come from a personal website or a recognized web domain?)
	Bias (Is the author reputable? What are the author's credentials?)
	Corroboration (Do similar sources present similar information?)
Identify and explain the difference between fact and opinion.	
As a class/group, use teacher-selected Internet resources to locate, discuss, and compare information within content areas.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Use web activities for problem-solving and critical thinking.	
Demonstrate knowledge of Information Technology (e.g., JCPS Online Scrimmages, Quizzes, Assessments).	
Discuss the various types of technology used in careers (e.g., bar code scanners, handhelds).	
As a class activity, use electronic databases to conduct keyword search/filters to meet information needs (e.g., online card catalog).	
Use multimedia resources to support learning (e.g., interactive books, educational software, elementary multimedia).	
As a class activity, use other resources for gaining information to answer essential questions (e.g., electronic, print, people).	
Discuss the Internet as a source of information at school, home, and at the public library.	
Gather and use information from a variety of resources (e.g., websites, CD ROM encyclopedia, video, audio).	

STANDARD FOUR

ISTE/NETS: Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:
  a. identify and define authentic problems and significant questions for investigation.
  b. plan and manage activities to develop a solution or complete a project.
  c. collect and analyze data to identify solutions and/or make informed decisions.
  d. use multiple processes and diverse perspectives to explore alternative solutions.

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
As a team or individually, employ technology in the development of strategies for solving problems in the real-world.	Use an electronic database to gather resources to answer essential questions.
Use appropriate technology tools to successfully engage in higher-order thinking activities.	

STANDARD FIVE

ISTE/NETS: Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. *advocate and practice safe, legal, and responsible use of information and technology.*
b. *exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.*
c. *demonstrate personal responsibility for lifelong learning.*
d. *exhibit leadership for digital citizenship.*

Kentucky Teacher Technology Framework -
Big Idea: Safety and Ethical/Social Issues

Students understand safe and ethical/social issues related to technology. Students practice and engage in safe, responsible and ethical use of technology. Students develop positive attitudes toward technology use that supports lifelong learning, collaboration, personal pursuits and productivity.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Acknowledge ownership of own work (e.g., put name on work).	
Explain that one must have permission to use another person's work or any part of that person's work.	
Identify and cite sources.	Photographs (Resource must be on the same page with picture.)
	Websites
Identify the copyright symbol.	
Demonstrate knowledge of Copyright Materials.	Commerical Software
Identify and explain public domain, shareware.	
Demonstrate legal use of software.	
Explain the legal implications of viruses, hacking, offensive material, and vandalism.	Define hacker. Define Piracy.
Explain the social implications of viruses, hacking, offensive material, and vandalism (e.g., Economic impact on businesses attacked).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Sign and discuss the JCPSNet User Agreement Form.	
Explain acceptable and unacceptable computer use for students in JCPS according to the JCPSNet User Agreement Form.	
Explain the consequences of violating the JCPSNet User Agreement.	
Compare attributes of the physical community (where we live) and the cybercommunity.	
Describe online situations that may make you feel uncomfortable.	
Compare rules that concern communications between strangers and trusted adults in the physical community with the cyber community.	
Explain that a good citizen is a person who follows rules in a community. A cybercitizen obeys the rules of the online cybercommunity.	
Discuss how a stranger can pretend to be a friend in cyberspace.	
Identify a stranger as someone whom you and your parents don't know.	
Identify the characteristics of personal information.	
Explain potential risks to personal safety when supplying personal information, choosing a screen name, and selecting a password.	
Recognize and discuss the difference between e-mail, instant messaging, online bulletin boards, blogs, social chat rooms, and online communities.	
Describe what to do when an unintended website is entered.	
Discuss and follow the five Safety Tips published by the FBI for protecting oneself online.	Never give out personal information such as your name, home address, school name, or telephone number in a chat room or on bulletin boards. Also, never send a picture of yourself to someone you chat with on the computer without your parent's permission.
	Never write to someone who has made you feel uncomfortable or scared.
	Never meet someone or have them visit you without the permission of your parents.
	Tell your parents right away if you read anything on the Internet that makes you feel uncomfortable.
	Remember that people online may not be who they say they are. Someone who says that "she" is a "12-year-old girl" could really be an older man.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
As a class, group, or individual, recognize, discuss and model responsible and safe behavior using online resources.	
Discuss the importance of ethical, responsible, and safe behavior when using networked digital information.	
Explain why a password needs to be kept secret.	
Discuss the importance of being a responsible citizen when using technology.	
Participate in internet projects.	
Use internet safety skills.	
Respect other people's point of view and ideas when completing a class project.	
Explain why computers and/or other technologies are used for learning.	
Compare and contrast the critical attributes of bullying (real world and virtual world).	
Understand the procedures of how to report cyberbullying.	

STANDARD SIX

ISTE/NETS: Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

a. *understand and use technology systems.*

b. *select and use applications effectively and productively.*

c. *troubleshoot systems and applications.*

d. *transfer current knowledge to learning of new technologies.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Distinguish between hardware and software.	Demonstrate Computer Literacy
Describe and demonstrate proper care of equipment (e.g., keep food, drinks and magnets away from equipment, clean hands, not writing on equipment).	
APPLICATIONS	
Identify the purpose of productivity tools such as word processing, spreadsheet, and presentation software.	
Create products for content area assignments using appropriate technology.	
Follow on-screen directions.	
Use proofreading and electronic editing skills.	
Start up and shut down computer.	
Log on/in.	Ctrl+Alt+Delete
	User ID/Password

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Select an item from the menu bar.	
Select an item from a toolbar. Use Start button to navigate to documents.	
Open applications (e.g., File Menu: Open, Start Menu: Program Files).	
Identify open applications on the taskbar.	
Quit applications (e.g., File Menu: Quit/Exit, Close X on Windows).	
Close document, leaving application open.	
Save with assistance.	
Navigate and Save to specific location.	disk, folder, etc.
Explain the difference between Save and Save As.	
Navigate to open a saved document.	
Open a new document.	
Print with assistance.	
Print documents.	
REMOVABLE MEDIA	
Care and Handling:	Compact Disc, Digital Video Disc, and Data Disk
	Load correctly.
	Remove correctly.
	Explain the use of a Disk, CD and the use of a DVD.
FILES	
Navigate to open a file from different sources.	application
	disk
	CD
	desktop
	folders (different names)

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Identify file formats.	.rtf .doc .docx .xls .xlsx .ppt .pptx .txt
Save documents as a variety of file types to move data across platforms.	.rtf .doc .xls .ppt
Use multiple open files and applications (e.g., several word processing documents; open/use Window Menu or Task Bar; multiple files of the same type; navigate between browser and/or word processing, database).	
Use basic troubleshooting techniques.	Determine if all equipment is turned on and plugged in.
	Check mouse connection.
	Check keyboard connection.
	Check plugs/cables (plug in both ends; check for loose plugs)
Printer Troubleshooting.	Check to be sure correct printer is selected.
Print with options.	Print a specific page.
	Print a specific # of copies.
	Change page orientation.
	Select printer (printer name)

Grade 4

STANDARD ONE

ISTE/NETS: Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. *apply existing knowledge to generate new ideas, products, or processes.*
- b. *create original works as a means of personal or group expression.*
- c. *use models and simulations to explore complex systems and issues.*
- d. *identify trends and forecast possibilities.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
WORD PROCESSING	
Set alignments.	Justified
Format document.	Drop Cap
Use Thesaurus.	
Use Wizards.	
Use Assistants.	
Format picture/clipart using Layout Wrapping Styles.	
Insert Hyperlinks.	
SPREADSHEET	
Given specific directions, students will enter data into a spreadsheet.	Using a template
	Titles

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Given specific directions, students will enter data into a spreadsheet.	Column Labels
	Row Labels
Use existing functions or create formulas to solve mathematical problems.	Sum

STANDARD TWO

ISTE/NETS: Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a. *interact, collaborate, and publish with peers, experts, or others, employing a variety of digital environments and media.*

b. *communicate information and ideas effectively to multiple audiences using a variety of media and formats.*

c. *develop cultural understanding and global awareness by engaging with learners of other cultures.*

d. *contribute to project teams to produce original works or solve problems.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
TELECOMMUNICATIONS	
Identify how the community uses telecommunications in everyday activities (e.g., business, library, educational institutions, and government).	
List advantages and disadvantages of using telecommunications.	
Describe ways in which telecommunications tools promote collaboration, research, publication, communication and productivity.	
Explore finished products that have been electronically created (e.g., graphs, charts, signs, banners, cards, portfolio pieces, technical writing).	
As a class, participate in collaborative problem-solving activities, using interactive communications and online resources (e.g., e-mail, online).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Design, create, and participate in projects which will be published or monitored on the web by the teacher.	
E-MAIL	
Define E-mail.	
Understand and use netiquette.	Use language that does not include profanity, socially insensitive remarks or insults.
Give examples of the appropriate use of e-mail and/or purpose of e-mail (e.g., ask an expert, permission to use other's work, collaboration with peers around the world, communication, submit assignments to teachers, communicate with prospective colleges).	
Give examples of the inappropriate use of e-mail (e.g., chain mail, flaming, personal gain, junk mail).	
Explain why a password needs to be kept secret.	
PRESENTATION	
Explain the purpose of a presentation (e.g., communication, show knowledge of subject content, share information and publish).	
Create and publish products collaboratively for audiences inside and outside the classroom using technology tools (e.g., multimedia or presentation).	
Use technology communication to participate in online group projects and learning activities (e.g., CSILE, JCPS Online).	
Use interactive communications to access remote information, and to communicate with others in support of direct and independent learning.	
Create and/or modify multimedia projects individually or as a class activity using age-appropriate software (e.g., Microsoft Photo Story).	
Use templates to present written communication.	
Identify and discuss the use of multimedia tools to report content area information (e.g., United Streaming, Brain Pop).	

STANDARD THREE

ISTE/NETS: Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:
  a. plan strategies to guide inquiry.
  b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
  c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
  d. process data and report results.

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Demonstrate knowledge of appropriate use of the Internet.	Education-based research (e.g., gathering data)
Identify and/or use Internet terms.	Home Page
	Favorites/Bookmarks
	Home Icon
	Address Bar
	Links
	Back
	Forward
	Stop
	Refresh
	World Wide Web
	URL
	Search Engine

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Identify and/or use Internet terms.	Keywords
Identify parts of a URL.	http
	www
	.com
	.gov
	.edu
	.org
	.html
	.mil
	.net
	.tv
	.mobi
	.info
	.us
	.biz
Explain the function of a filter server to block or filter objectionable material.	
Open web browser & use the Home, Back, & Forward buttons.	
Identify the JCPS Home Page.	
Enter a URL.	
Favorites/Bookmarks	Add favorites/bookmarks.
	Remove a favorite/bookmark.
	Create folders to organize favorites/bookmarks.
Understand the function of links.	
Use links (e.g., displayed in text and graphic format).	
Use search engine(s) to find specific information.	
Use keywords when searching.	
As a class, discuss when an Internet search may be effective.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Use appropriate bibliographic citations for electronic resources (e.g., web page, data source, picture, music, video, journal article).	
Critique web resources for validity of information.	Reliability (Does it come from a personal website or a recognized web domain?)
	Bias (Is the author reputable? What are the author's credentials?)
	Corroboration (Do similar sources present similar information?)
Identify and explain the difference between fact and opinion.	
Use teacher-selected Internet resources to locate, discuss, and compare information within content areas as a class/group.	
Use web activities for problem solving and critical thinking.	
Demonstrate knowledge of Information Technology (e.g., JCPS Online Scrimmages, Quizzes, Assessments).	
Discuss the various types of technology used in careers (e.g., bar code scanners, handhelds).	
As a class activity, use electronic databases to conduct keyword search/filters to meet information needs (e.g., online card catalog).	
Use multimedia resources to support learning (e.g., interactive books, educational software, elementary multimedia).	
As a class activity, use other resources for gaining information to answer essential questions (e.g., electronic, print, people).	
Discuss the Internet as a source of information at school, home, and at the public library.	
Gather and use information from a variety of resources (e.g., websites, CD ROM encyclopedia, video, audio).	

STANDARD FOUR

ISTE/NETS: Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

a. identify and define authentic problems and significant questions for investigation.
b. plan and manage activities to develop a solution or complete a project.
c. collect and analyze data to identify solutions and/or make informed decisions.
d. use multiple processes and diverse perspectives to explore alternative solutions.

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
As a team or individually, employ technology in the development of strategies for solving problems in the real-world.	Use an electronic database to gather resources to answer essential questions.
	Use spreadsheets to organize and calculate data and create graphs to answer a real-life question.
	Use a word processing document with an embedded table to report results and organize information.
	Use presentation software to report and present information.
	Use problem-solving, simulation software, and web activities to answer real-world questions.
Use appropriate technology tools to successfully engage in higher-order thinking activities.	
Define Technology Integration	

STANDARD FIVE

ISTE/NETS: Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. advocate and practice safe, legal, and responsible use of information and technology.
b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
c. demonstrate personal responsibility for lifelong learning.
d. exhibit leadership for digital citizenship.

Kentucky Teacher Technology Framework -
Big Idea: Safety and Ethical/Social Issues

Students understand safe and ethical/social issues related to technology. Students practice and engage in safe, responsible and ethical use of technology. Students develop positive attitudes toward technology use that supports lifelong learning, collaboration, personal pursuits and productivity.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Acknowledge ownership of own work (e.g., put name on work).	
Explain that one must have permission to use another person's work or any part of that person's work.	
Identify and cite sources.	Photographs (Resource must be on the same page with picture.)
	Websites
Identify the copyright symbol.	
Demonstrate knowledge of Copyright Materials.	
Demonstrate legal use of software.	
Explain the legal implications of viruses, hacking, offensive material, and vandalism.	Define virus.
Explain the social implications of viruses, hacking, offensive material, and vandalism (e.g., economic impact on businesses attacked).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Sign and discuss the JCPSNet User Agreement.	
Explain acceptable and unacceptable computer use for students in JCPS according to the JCPSNet User Agreement Form.	
Explain the consequences of violating the JCPSNet User Agreement.	
Compare attributes of the physical community (where we live) and the cybercommunity.	
Describe online situations that may make you feel uncomfortable.	
Compare rules that concern communications between strangers and trusted adults in the physical community with the cybercommunity.	
Explain that a good citizen is a person who follows rules in a community.	
Discuss how a stranger can pretend to be a friend in cyberspace.	
Identify a stranger as someone whom you and your parents don't know.	
Identify the characteristics of personal information.	
Explain potential risks to personal safety when supplying personal information, choosing a screen name, and selecting a password.	
Discuss the importance of ethical, responsible, and safe behavior when using networked digital information.	
As a class/group/or individual recognize, discuss and model responsible and safe behavior using online resources.	
Recognize, discuss the difference between e-mail, instant messaging, text messaging, online bulletin boards, blogs, social chat rooms, and online communities.	
Describe what to do when an unintended website is entered.	
Explain why a password needs to be kept secret.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Discuss effective access to technology and define the Digital Divide.	
Discuss and follow the five Safety Tips published by the FBI for protecting oneself online.	Never give out personal information such as your name, home address, school name, or telephone number in a chat room or on bulletin boards. Also, never send a picture of yourself to someone you chat with on the computer without your parent's permission.
	Never write to someone who has made you feel uncomfortable or scared.
	Never meet someone or have them visit you without the permission of your parents.
	Tell your parents right away if you read anything on the Internet that makes you feel uncomfortable.
	Remember that people online may not be who they say they are. Someone who says that "she" is a "12-year-old girl" could really be an older man.
Participate in Internet projects.	
Use internet safety skills.	
Respect other people's point of view and ideas when completing a class project.	
Explain why computers and/or other technologies are used for learning.	
Compare and contrast the critical attributes of bullying (real world and virtual world).	
Understand the procedures of how to report cyberbullying.	
Discuss the importance of being a responsible citizen when using technology.	

STANDARD SIX

ISTE/NETS: Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

a. *understand and use technology systems.*
b. *select and use applications effectively and productively.*
c. *troubleshoot systems and applications.*
d. *transfer current knowledge to learning of new technologies.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Integrate resources from different types of audio and video equipment (e.g.,. scanner, computer, video camera, digital camera) to present information (not tested).	
Distinguish between hardware and software.	
Describe and demonstrate proper care of equipment (e.g., keep food, drinks and magnets away from equipment, clean hands, not writing on equipment).	
APPLICATIONS	
Identify the purpose of productivity tools such as word processing, spreadsheet, and presentation software.	
Create products for content area assignments using appropriate technology.	
Follow on-screen directions.	
Use proofreading and electronic editing skills.	
Start up and shut down computer.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Log on/in.	User ID/Password
	Ctrl+Alt+Delete
Select an item from the menu bar.	
Select an item from a toolbar.	Quick Launch.
Open applications (e.g., File Menu: Open, Start Menu: Program Files).	
Quit applications (e.g., File Menu: Quit/Exit, Close X on Windows).	
Close document, leaving application open.	
Save with assistance.	
Navigate and Save to specific location.	Disk, folder, etc.
Explain the difference between Save and Save As.	
Navigate to open a saved document.	
Open a new document.	
Print with assistance.	
Print documents.	
REMOVABLE MEDIA	
Care and Handling:	Compact Disc, Digital Video Disc, and Data Disk
	Load correctly.
	Remove correctly.
	Explain the use of a Disk, CD and the use of a DVD.
FILES	
Navigate to open a file from different sources.	Application
	Disk
	CD
	Desktop
	Folders (different names)
Identify file formats.	.rtf .doc .docx .xls .xlsx .ppt .pptx .txt

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Save documents as a variety of file types to move data across platforms.	.rtf .doc .xls .ppt
Use multiple open files and applications (e.g., several word processing documents; open/use Window Menu or Task Bar; multiple files of the same type; navigate between browser and/or word processing, database).	
Use basic troubleshooting techniques.	Determine if all equipment is turned on and plugged in.
	Check mouse connection.
	Check keyboard connection.
	Check plugs/cables (plug in both ends; check for loose plugs).
	Restart
Printer troubleshooting.	Check to be sure correct printer is selected.
Print with options.	Print a specific page.
	Print a specific number of copies.
	Change page orientation.
	Select printer (printer name).
Plan and use two or more technologies to complete a content area project/assignment (e.g., probe + Excel, Inspiration + Internet).	

Grade 5

STANDARD ONE

ISTE/NETS: Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

a. *apply existing knowledge to generate new ideas, products, or processes.*
b. *create original works as a means of personal or group expression.*
c. *use models and simulations to explore complex systems and issues.*
d. *identify trends and forecast possibilities.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
KEYBOARDING	
Use special characters on top of number keys.	
Keyboard with a speed of 15 wpm.	
Use appropriate fingers on left shift, right shift, delete, tab.	
Use caps lock key properly.	
Use punctuation keys correctly.	. Period
	' Apostrophe
	, Comma
	" Quotation Marks
	; Semicolon
	: Colon

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
WORD PROCESSING	
Use correct spacing.	Line spacing
Apply Effects to Text.	Subscript
	Superscript
	Shadow
Add borders.	
Use the Find/Replace feature.	
Use custom tab settings.	
Tab leaders.	Use dots and/or dashes before and after tabs.
Set alignments.	Center
	Left
	Right
Format a document with two or more columns.	
Insert a Page Break.	
Insert a Section Break.	
Insert a Column Break.	
Create a Header.	
Create a Footer.	
Set Page Margins.	
Change page orientation (landscape/portrait).	
Insert a page number.	
Use indents.	Create a first-line indent.
	Create a hanging indent.
Utilize Toolbars.	Drawing
	Standard
	Formatting
	WordArt
	Tables and Borders
	Web

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
WORD PROCESSING	
Insert a table.	
Create:	Brochure
	Newsletter
SPREADSHEET	
Given specific directions, students will enter data into a spreadsheet.	Formulas
	Using a blank spreadsheet.
Students will move cell data.	Insert Row(s)
	Insert Column(s)
	Insert a Chart
	Delete Row(s)
	Delete Column(s)
	Move Data in Columns and/or Rows
Students will format data in a cell.	Numbers
	Currency
	Decimal Places/Precision
	Percentages
Students will select data in a spreadsheet.	Select cells, entire row, entire column, and cells for graph.
	Alignment
	Row Height
	Column Width
	Wrap Text
	Borders
	Fill Colors
	Rename Worksheet
Students will freeze row and column headings.	
Students will display and print spreadsheet.	With and without gridlines or column and row headings.
Explain the concept of formulas.	Identify the symbols used in formulas (e.g., ( ) * + - =).

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
SPREADSHEET	
Use Formulas:	Use AutoSum.
	Use relative cell reference.
Functions:	Explain the concept of functions.
Identify parts of a function formula.	Equal sign, function name, argument in parentheses
Create formulas using + - * /.	
Use existing functions or create formulas to solve mathematical problems.	Sum
Use Fill Commands:	Fill Down
	Fill Right
	Fill Special
Print specific and/or non-consecutive pages.	
Charts / Graphs:	As a class, introduce electronic graphic organizers (Venn diagrams)
	Use charts/graphs.
	Identify the purpose of charting data.
	Identify column, bar, pie, line and scatter charts.
Create a basic chart/graph.	Column
	Bar
Format a basic chart/graph.	Resize Charts
	Move Charts
Use a prepared spreadsheet to create a graph.	
As a class, use a graph to produce results and make informed decisions to answer real-life questions.	
Format various parts of chart.	Title the Chart.
	Label the X and Y axes.
Format the text appearance in a chart.	Font
	Size
	Style
	Color

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
PRESENTATION	
Insert:	Diagram
	Movie
	Sound
	Table
	Slide Numbers
	Date and Time
	Hyperlink
Format:	Text (appropriate font, size, and color)
	Bullets and Numbering
	Alignment
Use sizing handles.	Picture (size and shape)
Setup Presentation/Show	Slide Transitions
	Set Timings
Choose appropriate layout:	Title , Title and Text
Identify and use task pane.	Title and Text
Use slide view(s).	Slide order
Use rules of good presentations.	Content is clearly stated.
	Design is pleasing to the eye.
	Design is consistent.
DATABASE	
Identify fields that make up a single record.	
Enter information into appropriate fields.	
Search a database to retrieve specific information.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:

DATABASE	
Use logical operators to refine searches (e.g., = < > And Or Not).	
Sort by field type.	
Sort by descending and ascending order.	
Navigate through records.	
Learn the similarities of a database and a spreadsheet by practicing database skills using a spreadsheet.	

STANDARD TWO

ISTE/NETS: Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a. *interact, collaborate, and publish with peers, experts, or others, employing a variety of digital environments and media.*

b. *communicate information and ideas effectively to multiple audiences using a variety of media and formats.*

c. *develop cultural understanding and global awareness by engaging with learners of other cultures.*

d. *contribute to project teams to produce original works or solve problems.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
TELECOMMUNICATIONS	
Identify how the community uses telecommunications in everyday activities (e.g., business, library, educational institutions, and government).	
List advantages and disadvantages of using telecommunications.	
Describe ways in which telecommunications tools promote collaboration, research, publication, communication and productivity.	
Explore finished products that have been electronically created (e.g., graphs, charts, signs, banners, cards, portfolio pieces, technical writing).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
TELECOMMUNICATIONS	
As a class, participate in collaborative problem-solving activities using interactive communications and online resources (e.g., e-mail, online).	
Design, create, and participate in projects which will be published or monitored on the web by the teacher.	
E-mail	
Define E-mail.	
Understand and use netiquette.	Use language that does not include profanity, socially insensitive remarks or insults.
Give examples of the appropriate use of e-mail and/ or purpose of e-mail (e.g., ask an expert, permission to use other's work, collaboration with peers around the world, communication, submit assignments to teachers, communicate with prospective colleges).	
Give examples of the inappropriate use of e-mail (e.g., chain mail, flaming, personal gain, junk mail).	
Explain why a password needs to be kept secret.	
Presentation	
Explain the purpose of a presentation (e.g., communication, show knowledge of subject content, share information and publish).	
Create and publish products collaboratively for audiences inside and outside the classroom using technology tools (e.g., multimedia, presentation, publishing software).	
Use technology communication to participate in online group projects and learning activities (e.g., CSILE, JCPS Online).	
Use interactive communications to access remote information, and to communicate with others in support of direct and independent learning.	
Create and/or modify multimedia projects individually or as a class activity using age-appropriate software (e.g., Microsoft Photo Story).	
Use templates to present written communication.	
Identify and discuss the use of multimedia tools to report content area information (e.g., United Streaming, Brain Pop).	

STANDARD THREE

ISTE/NETS: Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

a. *plan strategies to guide inquiry.*
b. *locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.*
c. *evaluate and select information sources and digital tools based on the appropriateness to specific tasks.*
d. *process data and report results.*

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Demonstrate knowledge of appropriate use of the Internet.	Education-based research (e.g., gathering data)
Identify and/or use Internet terms.	Home Page
	Favorites/Bookmarks
	Home Icon
	Address Bar
	Links (Hypertext)
	Back
	Forward
	Stop
	Refresh

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Identify and/or use Internet terms.	World Wide Web
	URL
	Search Engine
	Keywords
Identify parts of a URL.	http
	www
	.com
	.gov
	.edu
	.org
	.html
	.mil
	.net
	.tv
	.mobi
	.info
	.us
	.biz
Explain the function of a filter server to block or filter objectionable material.	Define filter. Define firewall.
Open web browser & use the Home, Back, & Forward buttons.	
Identify the JCPS Home Page.	
Enter a URL.	
Favorites/Bookmarks.	Student adds favorites/bookmarks.
	Remove a favorite/bookmark.
	Create folders to organize favorites or bookmarks.
Understand the function of links.	
Use links (e.g., displayed in text and graphic format).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Use search engine(s) to find specific information.	
Use keywords when searching.	
As a class, discuss when an Internet search may be effective.	
Use appropriate bibliographic citations for electronic resources (e.g., web page, data source, picture, music, video, journal article).	
Critique web resources for validity of information.	Reliability (Does it come from a personal website or a recognized web domain?)
	Bias (Is the author reputable? What are the author's credentials?)
	Corroboration (Do similar sources present similar information?)
Identify and explain the difference between fact and opinion.	
As a class/group, use teacher-selected Internet resources to locate, discuss, and compare information within content areas.	
Use web activities for problem-solving and critical thinking.	
Demonstrate knowledge of Information Technology (e.g., JCPS Online Scrimmages, Quizzes, Assessments).	
Discuss the various types of technology used in careers (e.g., bar code scanners, handhelds).	
Use electronic databases as a class activity to conduct keyword search/filters to meet information needs (e.g., online card catalog).	
Use multimedia resources to support learning (e.g., interactive books, educational software, elementary multimedia).	
As a class activity, use other resources for gaining information to answer essential questions (e.g., electronic, print, people).	
Discuss the Internet as a source of information at school, home, and at the public library.	
Gather and use information from a variety of resources (e.g., websites, CD ROM encyclopedia, video, audio).	

STANDARD FOUR

ISTE/NETS: Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

  a. identify and define authentic problems and significant questions for investigation.
  b. plan and manage activities to develop a solution or complete a project.
  c. collect and analyze data to identify solutions and/or make informed decisions.
  d. use multiple processes and diverse perspectives to explore alternative solutions.

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
As a team or individually, employ technology in the development of strategies for solving problems in the real-world.	Use an electronic database to gather resources to answer essential questions.
	Use spreadsheets to organize and calculate data, and create graphs to answer a real-life question.
	Use a word processing document with an embedded table to report results and organize information.
	Use presentation software to report and present information.
	Use problem-solving, simulation software, and web activities to answer real-world questions.
Use software to accomplish authentic tasks such as preparing budgets or tracking investments.	
Use appropriate technology tools to successfully engage in higher-order thinking activities.	Define and discuss Virtual Reality.

STANDARD FIVE

ISTE/NETS: Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. advocate and practice safe, legal, and responsible use of information and technology.
b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
c. demonstrate personal responsibility for lifelong learning.
d. exhibit leadership for digital citizenship.

Kentucky Teacher Technology Framework -
Big Idea: Safety and Ethical/Social Issues

Students understand safe and ethical/social issues related to technology. Students practice and engage in safe, responsible and ethical use of technology. Students develop positive attitudes toward technology use that supports lifelong learning, collaboration, personal pursuits and productivity.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Acknowledge ownership of own work (e.g., put name on work).	
Explain that one must have permission to use another person's work or any part of that person's work.	
Identify and cite sources.	Photographs (Resource must be on the same page with picture.)
	Websites
Identify the copyright symbol.	
Demonstrate knowledge of Copyright Materials.	
Know the percentage of material that may be used legally (e.g. MP3s, music, sound).	
Explain to a student what "Fair Use" means with regard to Copyright Material.	
Demonstrate legal use of software.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Sign and discuss the JCPSNet User Agreement.	
Practice safety procedures for virus protection (No disks, CDs from home; Norton's, McAfee).	
Explain the legal implications of viruses, hacking, offensive material, and vandalism.	
Explain the social implications of viruses, hacking, offensive material, and vandalism (e.g., economic impact on businesses attacked).	Define and discuss Security.
Explain acceptable and unacceptable computer use for students in JCPS according to the JCPSNet User Agreement Form.	
Explain the consequences of violating the JCPSNet User Agreement Form.	
Compare attributes of the physical community (where we live) and the cybercommunity.	
Describe online situations that may make you feel uncomfortable.	
Compare rules that concern communications between strangers and trusted adults in the physical community with the cybercommunity.	
Explain that a good citizen is a person who follows rules in a community.	
Discuss how a stranger can pretend to be a friend in cyberspace.	
Identify a stranger as someone whom you and your parents don't know.	
Identify the characteristics of personal information.	
Explain potential risks to personal safety when supplying personal information, choosing a screen name, and selecting a password.	
Discuss the importance of ethical, responsible, and safe behavior when using networked digital information.	
As a class, group, or individual, recognize, discuss and model responsible and safe behavior using online resources.	
Recognize and discuss the difference between e-mail, instant messaging, online bulletin boards, blogs, social chat rooms, and online communities.	
Describe what to do when an unintended website is entered.	
Explain why a password needs to be kept secret.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Participate in Internet projects.	
Discuss and follow the five Safety Tips published by the FBI for protecting oneself online.	Never give out personal information such as your name, home address, school name, or telephone number in a chat room or on bulletin boards. Also, never send a picture of yourself to someone you chat with on the computer without your parent's permission.
	Never write to someone who has made you feel uncomfortable or scared.
	Never meet someone or have them visit you without the permission of your parents.
	Tell your parents right away if you read anything on the Internet that makes you feel uncomfortable.
	Remember that people online may not be who they say they are. Someone who says that "she" is a "12-year-old girl" could really be an older man.
Discuss the importance of being a responsible citizen when using technology.	
Use internet safety skills.	
Respect other peoples' point of view and ideas when completing a class project.	
Explain why computers and/or other technologies are used for learning.	
Compare and contrast the critical attributes of bullying (real world and virtual world).	
Understand the procedures of how to report cyberbullying.	

STANDARD SIX

ISTE/NETS: Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

a. *understand and use technology systems.*
b. *select and use applications effectively and productively.*
c. *troubleshoot systems and applications.*
d. *transfer current knowledge to learning of new technologies.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems.
Students use technology to learn, to communicate, to increase productivity and become competent
users of technology. Students manage and create effective oral, written and multimedia communications
in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Integrate resources from different types of audio and video equipment (e.g.,. scanner, computer, video camera, digital camera) to present information).	
Distinguish between hardware and software.	
Describe and demonstrate proper care of equipment (e.g., keep food, drinks and magnets away from equipment, clean hands, not writing on equipment).	
APPLICATIONS	
Identify the purpose of productivity tools such as word processing, spreadsheet and presentation software.	
Create products for content area assignments using appropriate technology.	
Follow on-screen directions.	
Use proofreading and electronic editing skills.	
Start up and shut down computer.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Log on/in.	Ctrl+Alt+Delete
	User ID/Password
Select an item from the menu bar.	
Select an item from a toolbar.	
Open applications (e.g., File Menu: Open, Start Menu: Program Files).	
Quit applications (e.g., File Menu: Quit/Exit, Close X on Windows).	
Close document, leaving application open.	
Save.	
Navigate and Save to specific location.	Disk, folder, etc.
Explain the difference between Save and Save As.	
Navigate to open a saved document.	
Open a new document.	
Print documents.	
REMOVABLE MEDIA	
Care and Handling:	Compact Disc, Digital Video Disc, and Data Disk
	Load correctly.
	Remove correctly.
	Explain the use of a Disk, CD and the use of a DVD.
FILES	
Navigate to open a file from different sources.	Application
	Disk
	CD
	Desktop
	Folders (different names)
Identify file formats.	.rtf .doc .docx .xls .xlsx .ppt .pptx .txt
Identify file formats.	.pdf .dot .xlt .html .pps

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Save documents as a variety of file types to move data across platforms.	.rtf .doc .xls .ppt
	.pdf .dot .xlt .html .pps
Set up and use multi-level folder filing system.	
Use multiple open files and applications (e.g., several word processing documents; open/use Window Menu or Task Bar; multiple files of the same type; navigate between browser and/or word processing, database).	
Use basic troubleshooting techniques.	Determine if all equipment is turned on and plugged in.
	Check mouse connection.
	Check keyboard connection.
	Check plugs/cables (plug in both ends; check for loose plugs)
	Restart
Printer Troubleshooting.	Check to be sure correct printer is selected.
Printer Options:	Print a specific page.
	Print a specific # of copies.
	Change page orientation.
	Select printer. (printer name)
Plan and use two or more technologies to complete a content-area project/assignment (e.g., probe + Excel, Inspiration + Internet).	

Middle School

STANDARD ONE

ISTE/NETS: Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

a. *apply existing knowledge to generate new ideas, products, or processes.*
b. *create original works as a means of personal or group expression.*
c. *use models and simulations to explore complex systems and issues.*
d. *identify trends and forecast possibilities.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Explain the uses of productivity tools.	
Explain an integrated software package.	
KEYBOARDING	
Use special keys.	Home
	Page up
	Page down
	End
Use special characters on top of number keys.	
Use numeric key pad.	
Keyboard accurately with a speed of 35 wpm.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
WORD PROCESSING	
Apply Effects to Text:	Subscript
	Superscript
	Shadow
Add borders.	
Set alignments.	Justified
Use Lists formats.	Bulleted
	Numbered
Use Thesaurus.	
Use the Find/Replace feature.	
Show/Hide Invisibles.	
Use custom tab settings.	
Tab Leaders.	Use dots and/or dashes before and after tabs.
Use indents.	Create a first-line indent.
	Create a hanging indent.
Utilize Toolbars.	WordArt
	Tables and Borders
	Web
Use Wizards. Use Assistants.	
Use Mail Merge.	
Format picture/clipart using Layout Wrapping Styles.	
Insert a table.	
Insert Hyperlinks.	
SPREADSHEET	
Format data in a cell.	Decimal places/Precision
	Percentages
	Format Date and Time
Format cells.	Merge and center text

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
SPREADSHEET	
Rename Worksheet	
Formulas:	Use relative and absolute cell reference.
Distinguish between relative and absolute cell references.	
Functions:	Explain the concept of functions.
Identify parts of a function formula.	Equal sign, function name, argument in parentheses
Use functions to solve statistical problems.	Average
	Max
	Min
Identify functions to insert times and dates.	Date, Day, Time, Now
Name a range of data.	
Use Fill Commands:	Fill Down
	Fill Right
	Fill Handle
	Fill Special
Students will freeze row and column headings.	With no column and row headings
Sort Data.	Use single criterion
	Use multiple criteria
	Use AutoFilter
Charts/Graphs:	Identify column, bar, pie, line and scatter charts.
Create pie, line, scatter charts.	
Format various parts of chart.	Modify the Step Size/Scale. Change intervals on a scale range in a chart.
	Show/Hide the Legend.
	Reposition the Title and the Legend.
	Manipulate the Chart Range data.
	Change the Series in Rows/Columns.
	Display the Data Labels.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
SPREADSHEET	
Assign range name to a range of cells	
Set Print Range or Area.	
Work with multiple sheets to move data.	
Insert a spreadsheet and/or chart into word processing.	
Insert a spreadsheet and/or chart into a presentation.	
PRESENTATION	
Insert:	Notes
	Chart
Setup:	Action Settings
	Animations
	Narration
	Master Slide
Modify:	Master Slide
	Hide Slide
	Loop Settings
	Slide Timings
	Placeholder
Save in different formats (e.g. html, ppt, pps).	
Print:	Presentation Handouts
	Outlines
	Notes
DATABASE	
Create a query.	
Sort using filters.	

STANDARD TWO

ISTE/NETS: Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

    a. *interact, collaborate, and publish with peers, experts, or others, employing a variety of digital environments and media.*

    b. *communicate information and ideas effectively to multiple audiences using a variety of media and formats.*

    c. *develop cultural understanding and global awareness by engaging with learners of other cultures.*

    d. *contribute to project teams to produce original works or solve problems.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communications in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
TELECOMMUNICATIONS	
Identify how the community uses telecommunications in everyday activities (e.g., business, library, educational institutions, and government).	Discuss Distance Learning. Define e-commerce (e-Bay). Define ergonomics.
List advantages and disadvantages of using telecommunications.	
Describe ways in which telecommunications tools promote collaboration, research, publication, communication and productivity.	
Explore finished products that have been electronically created (e.g., graphs, charts, signs, banners, cards, portfolio pieces, technical writing).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
TELECOMMUNICATIONS	
As a class, participate in collaborative problem-solving activities using interactive communications and online resources (e.g., e-mail, online).	Define HTML
Design, create, and participate in projects which will be published or monitored on the web by the teacher.	
E-MAIL	
Define E-mail.	
Understand and use netiquette.	Use language that does not include profanity, socially insensitive remarks or insults.
Give examples of the appropriate use of e-mail and/ or purpose of e-mail (e.g., ask an expert, permission to use other's work, collaboration with peers around the world, communication, submit assignments to teachers, communicate with prospective colleges).	
Give examples of the inappropriate use of e-mail (e.g., chain mail, flaming, personal gain, junk mail).	
Explain why a password needs to be kept secret.	
PRESENTATION	
Explain the purpose of a presentation (e.g., communication, show knowledge of subject content, share information and publish).	
Create and publish products collaboratively for audiences inside and outside the classroom using technology tools (e.g., multimedia or presentation).	
Use technology communication to participate in online group projects and learning activities (e.g., CSILE, JCPS Online).	
Use interactive communications to access remote information, and to communicate with others in support of direct and independent learning.	
Create and/or modify multimedia projects individually or as a class activity using age appropriate software (e.g., Microsoft Photo Story).	
Use templates to present written communication.	
Identify and discuss the use of multimedia tools to report content area information (e.g., United Streaming, Brain Pop).	

STANDARD THREE

ISTE/NETS: Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

a. *plan strategies to guide inquiry.*

b. *locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.*

c. *evaluate and select information sources and digital tools based on the appropriateness to specific tasks.*

d. *process data and report results.*

Kentucky Teacher Technology Framework - Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Demonstrate knowledge of appropriate use of the Internet.	Education-based research (e.g., gathering data)
Identify and/or use Internet Terms.	Home Page
	Favorites/Bookmarks
	Home Icon
	Address Bar
	Links
	Back
	Forward
	Stop
	Refresh
	World Wide Web
	URL

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Identify and/or use Internet Terms.	Search Engine
	Keywords
	Domain
	Search
	Download
Identify parts of a URL.	http
	www
	.com
	.gov
	.edu
	.org
	.html
	.mil
	.net
	.tv
	.mobi
	.info
	.us
	.biz
Explain the function of a filter server to block or filter objectionable material.	
Open web browser & use the Home, Back, & Forward buttons.	
Identify the JCPS Home Page.	
Enter a URL.	
Favorites/Bookmarks:	Student adds favorites/bookmarks.
	Remove a favorite/bookmark.
	Create folders to organize favorites or bookmarks.
Understand the function of links.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Use links (e.g., displayed in text and graphic format).	
Use search engine(s) to find specific information.	
Use keywords when searching.	
As a class, discuss when an Internet search may be effective.	
Use appropriate bibliographic citations for electronic resources (e.g., web page, data source, picture, music, video, journal article).	
Critique web resources for validity of information.	Reliability (Does it come from a personal website or a recognized web domain?)
	Bias (Is the author reputable? What are the author's credentials?)
	Corroboration (Do similar sources present similar information?)
Identify and explain the difference between fact and opinion.	
As a class/group, use teacher-selected Internet resources to locate, discuss, and compare information within content areas.	
Use web activities for problem-solving and critical thinking.	
Demonstrate knowledge of current changes in information technology (e.g., take coursework, classes online; videoconferencing).	
Demonstrate knowledge of Information Technology (e.g., JCPS Online Scrimmages, Quizzes, Assessments).	
Discuss the various types of technology used in careers (e.g., bar code scanners, handhelds).	
As a class activity, use electronic databases to conduct keyword search/filters to meet information needs (e.g., online card catalog).	
Use multimedia resources to support learning (e.g., interactive books, educational software, elementary multimedia).	
As a class activity, use other resources for gaining information to answer essential questions (e.g., electronic, print, people).	
Discuss the Internet as a source of information at school, home, and at the public library	
Gather and use information from a variety of resources (e.g., websites, CD ROM encyclopedia, video, audio).	

STANDARD FOUR

ISTE/NETS: Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

 a. identify and define authentic problems and significant questions for investigation.
 b. plan and manage activities to develop a solution or complete a project.
 c. collect and analyze data to identify solutions and/or make informed decisions.
 d. use multiple processes and diverse perspectives to explore alternative solutions.

Kentucky Teacher Technology Framework -
Big Idea: Research, Inquiry/Problem-Solving and Innovation

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students use technology for original creation and innovation.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
As a team or individually, employ technology in the development of strategies for solving problems in the real-world.	
	Use an electronic database to gather resources to answer essential questions.
	Use spreadsheets to organize and calculate data and create graphs to answer a real-life question.
	Use a word processing document with an embedded table to report results and organize information.
	Use presentation software to report and present information.
	Use problem-solving, simulation software, and web activities to answer real-world questions.
Use software to accomplish authentic tasks such as preparing budgets or tracking investments.	
Use appropriate technology tools to successfully engage in higher order thinking activities.	

STANDARD FIVE

ISTE/NETS: Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

   a. advocate and practice safe, legal, and responsible use of information and technology.

   b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.

   c. demonstrate personal responsibility for lifelong learning.

   d. exhibit leadership for digital citizenship.

Kentucky Teacher Technology Framework -
Big Idea: Safety and Ethical/Social Issues

Students understand safe and ethical/social issues related to technology. Students practice and engage in safe, responsible and ethical use of technology. Students develop positive attitudes toward technology use that supports lifelong learning, collaboration, personal pursuits and productivity.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Acknowledge ownership of own work (e.g., put name on work).	
Explain that one must have permission to use another person's work or any part of that person's work.	
Identify and cite sources.	Photographs (Resource must be on the same page with picture.)
	Websites
	Electronic books, e-zines
	Periodicals, encyclopedias
Citing Internet sources must include a minimum of four pieces of information (Author's name, Document title, Date of Internet publication, Date of access, and URL).	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Identify the copyright symbol.	
Demonstrate knowledge of Copyright Materials.	
Know the percentage of material that may be used legally (e.g. MP3s, music, sound).	
Explain to a student what "Fair Use" means with regard to Copyright Material.	
Demonstrate legal use of software.	
Demonstrate knowledge of Freeware, Shareware, Public Domain Software, and Commercial Software.	
Practice safety procedures for virus protection (no disks, CDs from home; Norton's, McAfee).	
Explain the legal implications of viruses, hacking, offensive material, and vandalism.	
Explain the social implications of viruses, hacking, offensive material, and vandalism (e.g., economic impact on businesses attacked).	
Sign and discuss the JCPSNet User Agreement.	
Explain acceptable and unacceptable computer use for students in JCPS according to the JCPSNet User Agreement Form.	
Explain the consequences of violating the JCPSNet User Agreement Form.	
Compare attributes of the physical community (where we live) and the cybercommunity.	
Describe online situations that may make you feel uncomfortable.	
Compare rules that concern communications between strangers and trusted adults in the physical community with the cybercommunity.	
Explain that a good citizen is a person who follows rules in a community.	
Discuss how a stranger can pretend to be a friend in cyberspace.	
Identify a stranger as someone whom you and your parents don't know.	
Identify the characteristics of personal information.	
Discuss the importance of ethical, responsible, and safe behavior when using networked digital information.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Explain potential risks to personal safety when supplying personal information, choosing a screen name, and selecting a password.	
As a class, group or individual, recognize, discuss and model responsible and safe behavior using online resources.	
Recognize and discuss the difference between e-mail, instant messaging, online bulletin boards, blogs, social chat rooms, and online communities.	
Describe what to do when an unintended website is entered.	
Discuss and follow the five Safety Tips published by the FBI for protecting oneself online.	Never give out personal information such as your name, home address, school name, or telephone number in a chat room or on bulletin boards. Also, never send a picture of yourself to someone you chat with on the computer without your parent's permission.
	Never write to someone who has made you feel uncomfortable or scared.
	Never meet someone or have them visit you without the permission of your parents.
	Tell your parents right away if you read anything on the Internet that makes you feel uncomfortable.
	Remember that people online may not be who they say they are. Someone who says that "she" is a "12-year-old girl" could really be an older man.
Explain why a password needs to be kept secret.	
Discuss the importance of being a responsible citizen when using technology.	
Participate in internet projects.	
Use internet safety skills.	
Respect other people's point of view and ideas when completing a class project.	
Explain why computers and/or other technologies are used for learning.	
Compare and contrast the critical attributes of bullying (real world and virtual world).	
Understand the procedures of how to report cyberbullying.	
Introduce the Nine Elements of Digital Citizenship	Digital Access (full electronic participation in society, in school, and out 1 to 1)
	Digital Commerce (buy & sell goods online, e.g., Amazon, eBay)
	Digital Communication (e.g., email, cell phones, videoconferencing, instant messaging, text messaging, blogs, wikis)

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Introduce the Nine Elements of Digital Citizenship	Digital Literacy (e.g., online courses, blogs, websites, podcasts)
	Digital Etiquette (e.g., flaming, bullying, solicitation, phone on vibrate)
	Digtial Law (e.g,, BitTorrent, LimeWire, pirating software, hacking, stealing identity)
	Digitial Rights and Responsibilities (e.g., UAP, citing sources, cheating, cyberbullying)
	Digital Health and Wellness (e.g., carpal tunnel, eye strain, poor posture, addiction)
	Digital Security (e.g., virus protection, backups, personal information, hackers, identity theft)

STANDARD SIX
ISTE/NETS: Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:
a. *understand and use technology systems.*
b. *select and use applications effectively and productively.*
c. *troubleshoot systems and applications.*
d. *transfer current knowledge to learning of new technologies.*

Kentucky Teacher Technology Framework -
Big Idea: Information, Communication and Productivity

Students demonstrate a sound understanding of the nature and operations of technology systems.
Students use technology to learn, to communicate, to increase productivity and become competent
users of technology. Students manage and create effective oral, written and multimedia communications
in a variety of forms and contexts.

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Integrate resources from different types of audio and video equipment (e.g., scanner, computer, video camera, digital camera, flip camera, document camera, airliner, iPod, MP3 player, interactive white board) to present information.	
Distinguish between hardware and software.	
Describe and demonstrate proper care of equipment (e.g., keep food, drinks and magnets away from equipment, clean hands, not writing on equipment).	
APPLICATION	
Identify the purpose of productivity tools such as word processing, spreadsheet, and presentation software.	
Create products for content area assignments using appropriate technology.	
Follow on-screen directions.	
Use proofreading and electronic editing skills.	

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
Start up and shut down computer.	
Log on/in.	User ID/Password
	Ctrl+Alt+Delete
Select an item from the menu bar.	
Select an item from a toolbar.	
Open applications (e.g., File Menu: Open, Start Menu: Program Files).	
Quit applications (e.g., File Menu: Quit/Exit, Close X on Windows).	
Close document, leaving application open.	
Save.	
Explain the difference between Save and Save As.	
Navigate and Save to specific location.	
	document folder, other folders
	server
Open a new document.	
Navigate to open a saved document.	
Printing:	Print documents.
	Use Print Preview/Page View.
REMOVABLE MEDIA	
Explain the use of a Disk, CD and a DVD.	
Care and Handling:	Compact Disc (CD), Digital Video Disc (DVD), Data Disk, Flash Drive, Pen Drive, Jump Drive, Thumb Drive
	Load correctly
	Remove correctly
FILES	
Navigate to open a file from different sources.	application
	CD
	desktop
	folders (different names)

Students will continue to practice skills introduced in earlier grade(s) and be introduced to and practice:	
FILES	
Set up and use multi-level folder filing system.	
Identify file formats.	.rtf .doc .docx .xls .xlsx .ppt .pptx .txt
	.pdf .dot .xlt .html .pps
Save documents as a variety of file types to move data across platforms.	.rtf .doc .xls .ppt .pdf .dot .xlt .html .pps
Use find/search to locate files.	
Use multiple open files and applications (e.g., several word processing documents; open/use Windows Menu or Task Bar; multiple files of the same type; navigate between browser and/or word processing, database).	
Use basic troubleshooting techniques.	Determine if all equipment is turned on and plugged in.
	Check mouse connection
	Check keyboard connection
	Check plugs/cables (plug in both ends; check for loose plugs)
	Restart
	Ctrl+Alt+Delete, Task Mgr., Restart
	Force Quit
Printer Troubleshooting.	Check to be sure correct printer is selected.
Printer Options:	Print a specific page.
	Print a specific # of copies
	Change page orientation
	Select printer (printer name)
Demonstrate knowledge of components and functions of a computer system.	Define Server, Hotspot, WiFi, and Wireless.
	Define LAN and RSS.
	Define WAN
	Define Network
Plan and use two or more technologies to complete a content area project/assignment (e.g., probe + Excel, Inspiration + Internet).	

STANDARD ONE

Student will:		P1	P2	P3	P4	4	5	6	7	8
Explain the uses of productivity tools.					I	P	C	C	C	C
Explain an integrated software package.					I	P	C	C	C	C
KEYBOARDING										
Use proper posture.	Proper body position (Sit up straight.)	I	P	P	P	C	C	C	C	C
	Proper position of keyboard (center with body)	I	P	P	P	C	C	C	C	C
	Correct wrist & elbow placement	I	P	P	P	C	C	C	C	C
Use two hands while typing.	Left hand should be used for keys on the left side of keyboard, and right hand used for keys on the right side.	I	P	P	P	C	C	C	C	C
Key in Network ID and Password		I/P/C	C	C	C	C	C	C	Key	C
Identify home row keys.			I	P	P	C	C	C	C	C
Use thumbs for space bar.			I	P	P	C	C	C	C	C
Use home row keys. (Finger Positioning)	Use correct finger positioning.		I	P	P	C	C	C	C	C
Use keys other than home row (e.g., m c l . , b, p, w, g, q, u)			I	P	P	C	C	C	C	C
Use appropriate fingers on left shift, right shift, delete, tab.				I	P	P	C	C	C	C
Use caps lock key properly.				I	P	P	C	C	C	C
Use punctuation keys correctly.	. Period			I	P	P	C	C	C	C
	' Apostrophe			I	P	P	C	C	C	C
	, Comma			I	P	P	C	C	C	C
	" Quotation Marks			I	P	P	C	C	C	C
	; Semicolon			I	P	P	C	C	C	C
	: Colon			I	P	P	C	C	C	C
Use special keys.	Enter	I/P/C	C	C	C	C	C	C	C	C
	Ctrl/Alt/Delete	I/P/C	C	C	C	C	C	C	C	C
	Esc (escape)	I	P	P	C	C	C	C	C	C
	Home								I	P	C
	Page up								I	P	C
	Page down								I	P	C
	End								I	P	C
Use number keys.		I/P/C	C	C	C	C	C	C	C	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Use special characters on top of number keys.							I	P	P	C
Use numeric key pad.										I
Keyboard with a speed of 10 wpm.	(Mastery level expected at P4, but not tested)		I	P	P	C	C	C	C	C
Keyboard with a speed of 15 wpm.							C	C	C	C
Keyboard accurately with a speed of 35 wpm.										C
WORD PROCESSING										
Recognize a word processing document.		I	P	P	P	C	C	C	C	C
Identify the purposes of a word processing document.		I	P	P	P	C	C	C	C	C
Answer questions relating to a word processing document.		I	P	P	P	C	C	C	C	C
Edit a word processing document.		I	P	P	P	C	C	C	C	C
Use upper and lower case letters appropriately.		I	P	P	P	C	C	C	C	C
Use correct spacing.	One space between words	I	P	P	P	C	C	C	C	C
	One space after punctuation	I	P	P	P	C	C	C	C	C
	Enter key to create blank lines	I	P	P	P	C	C	C	C	C
	Delete key to delete blank lines and or individual letter/character to right	I	P	P	P	C	C	C	C	C
	Backspace to delete individual letter/character to the left	I	P	P	P	C	C	C	C	C
	Line spacing			I	P	P	C	C	C	C
Place the cursor for editing purposes.		I/P/C	C	C	C	C	C	C	C	C
Apply changes to text.	Change the font.	I	P	P	C	C	C	C	C	C
	Change the size of text.	I	P	P	C	C	C	C	C	C
	Change the text color.	I	P	P	C	C	C	C	C	C
Apply Style changes.	Bold	I	P	P	C	C	C	C	C	C
	Underline		I	P	C	C	C	C	C	C
	Italics		I	P	C	C	C	C	C	C
Apply Effects to text.	Subscript						I	P	P	C
	Superscript						I	P	P	C
	Shadow						I	P	P	C
Add borders							I	P	P	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Set alignments	Center				I	P	P	C	C	C
	Left				I	P	P	C	C	C
	Right				I	P	P	C	C	C
	Justified					I	P	P	P	C
Use formats	Bulleted				I	P	P	P	P	C
	Numbered				I	P	P	P	P	C
	List				I	P	P	P	P	C
	Drop Cap					I	P	P	P	C
Use Spell Check to check a document.			I	P	P	C	C	C	C	C
Use Thesaurus						I	P	P	P	C
Format a document with two or more columns.					I	P	P	C	C	C
Insert a Page Break.					I	P	P	C	C	C
Insert a Section Break.					I	P	P	C	C	C
Insert a Column Break.					I	P	P	C	C	C
Create a Header					I	P	P	C	C	C
Create a Footer					I	P	P	C	C	C
Use the Find/Replace feature.							I	P	P	C
Use the Show/Hide Invisibles					I	P	P	P	P	C
Set Page Margins				I	P	P	C	C	C	C
Change page orientation (landscape/portrait)				I	P	P	C	C	C	C
Insert a page number.				I	P	P	C	C	C	C
Use the tab key to indent paragraph.		I	P	P	C	C	C	C	C	C
Use custom tab settings.							I	P	P	C
Tab leaders	Use dots and/or dashes before and after tabs.						I	P	P	C
Use indents	Create a first-line indent.						I	P	P	C
	Create a hanging indent.						I	P	P	C
Use Wizards.						I	P	P	P	C
Utilize Toolbars.	Drawing			I	P	P	P	C	C	C
	Standard			I	P	P	P	C	C	C
	Formatting			I	P	P	P	C	C	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Utilize Toolbars.	WordArt						I	P	P	C
	Tables and Borders						I	P	P	C
	Web						I	P	P	C
Use Assistants.						I	P	P	P	C
Insert picture/clip art.			I	P	P	C	C	C	C	C
Format/align picture/clip art.			I	P	P	C	C	C	C	C
Format picture/clip art using Layout Wrapping Styles.						I	P	P	P	C
Insert a table.							I	P	P	C
Insert Hyperlinks.						I	P	P	P	C
Create:	Brochure			I	P	P	P	C	C	C
	Newsletter			I	P	P	P	C	C	C
SPREADSHEET										
Recognize a spreadsheet document.				I	P	P	C	C	C	C	C
Answer questions using a spreadsheet.				I	P	P	C	C	C	C	C
Identify purposes of a spreadsheet.				I	P	P	C	C	C	C	C
Given specific directions, enter data into a spreadsheet.	Using a template			I	P	P	C	C	C	C	C
	Titles			I	P	P	C	C	C	C	C
	Column Labels			I	P	P	C	C	C	C	C
	Row Labels			I	P	P	C	C	C	C	C
	Formulas					I	P	C	C	C	C
	Using a blank spreadsheet				I	P	P	C	C	C	C
Move cell data.	Cut			I	P	P	C	C	C	C	C
	Copy			I	P	P	C	C	C	C	C
	Paste			I	P	P	C	C	C	C	C
	Delete			I	P	P	C	C	C	C	C
	Insert Row(s)				I	P	P	C	C	C	C
	Insert Column(s)				I	P	P	C	C	C	C
	Insert a Chart				I	P	P	C	C	C	C
	Delete Row(s)				I	P	P	C	C	C	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Move cell data.	Move data in columns and/or rows			I	P	P	C	C	C	C
	Delete column(s)			I	P	P	C	C	C	C
Format data in a cell.	Font		I	P	P	C	C	C	C	C
	Size		I	P	P	C	C	C	C	C
	Color		I	P	P	C	C	C	C	C
	Style		I	P	P	C	C	C	C	C
	Numbers			I	P	P	C	C	C	C
	Currency			I	P	P	C	C	C	C
	Decimal Places/ Precision						I	P	P	C
	Percentages						I	P	P	C
	Format Date and Time							I	P	C
	Select cells, entire row, entire column, and cells for graph.			I	P	P	C	C	C	C
Format cells.	Alignment				I	P	C	C	C	C
	Row Height				I	P	C	C	C	C
	Column Width				I	P	C	C	C	C
	Wrap Text				I	P	C	C	C	C
	Borders				I	P	C	C	C	C
	Fill Colors				I	P	C	C	C	C
Rename Worksheet							I	P	P	C
Freeze row and column headings.					I	P	P	C	C	C
Display and print spreadsheet.	With and without gridlines or column and row headings				I	P	P	C	C	C
Formulas:	Explain the concept of formulas.				I	P	P	C	C	C
	Identify the symbols used in formulas. (+ = - * / ( ))				I	P	P	C	C	C
	Create formulas using + - * /.				I	P	P	C	C	C
	Use Sum, AutoSum.				I	P	P	C	C	C
Distinguish between relative and absolute cell references.							I	P	P	C
Use relative cell reference.							I	P	P	C
Use absolute cell reference.							I	P	P	C
Functions:	Explain the concept of functions.						I	P	P	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Identify parts of a function formula.	Equal sign, function name, argument in parentheses						I	P	P	C
Use existing functions or create formulas to solve mathematical problems.	Sum					I	P	C	C	C
Use functions to solve statistical problems.	Average, Max, and Min							I	P	C
Identify functions to insert times and dates.	Date, Day, Time, Now							I	P	C
Name a range of data.								I	P	C
Use Fill Commands.	Fill Down							I	P	P	C
	Fill Right							I	P	P	C
	Fill Handle								I	P	C
	Fill Special							I	P	P	C
Printing	Set Print Range or Area.							I	P	C
	Print specific and/or non-consecutive pages.				I	P	C	C	C	C
Sort Data	In Descending/Ascending order				I	P	C	C	C	C
	Use single criteria							I	P	C
	Use multiple criteria							I	P	C
Charts/Graphs	Use AutoFilter							I	P	C
	Answer questions using a computer-generated chart/graph.		I	P	C	C	C	C	C	C
	As a class introduce electronic graphic organizers (Venn diagrams)			I	P	C	C	C	C	C
	Use charts/graphs.		I	P	P	P	C	C	C	C
	Identify the purpose of charting data.		I	P	P	P	C	C	C	C
Create a basic chart/graph.	Identify column, bar, pie, line and scatter charts.						I	P	P	C
	Column			I	P	P	C	C	C	C
	Bar			I	P	P	C	C	C	C
	Resize charts			I	P	C	C	C	C	C
	Move charts			I	P	C	C	C	C	C
	Pie							I	P	C
	Line							I	P	C
Use a graph as a class to make predictions.	Scatter							I	P	C
As a class, produce results and make informed decisions to answer real life questions using a prepared spreadsheet.			I	P	C	C	C	C	C	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Format various parts of a chart.	Title the Chart.				I	P	C	C	C	C
	Label the X and Y axes.				I	P	C	C	C	C
	Modify the Step Size/Scale.							I	P	C
	Show/Hide the Legend.							I	P	C
	Reposition the Title and the Legend.							I	P	C
	Manipulate the Chart Range data.							I	P	C
	Change the Series in Rows/Columns.							I	P	C
	Display the Data Labels.							I	P	C
Format the text appearance in a chart.	Font and Size				I	P	C	C	C	C
	Style				I	P	C	C	C	C
	Color				I	P	C	C	C	C
Work with multiple sheets to move data. (Office)										C
Insert a spreadsheet and/or chart into word processing.										C
Insert a spreadsheet and/or chart into a presentation.			I	P	C	C	C	C	C	C
Create multimedia projects individually or as a class activity using age appropriate software.			I	P	C	C	C	C	C	C
PRESENTATION										
Create a simple presentation.	New Slide		I	P	C	C	C	C	C	C
Insert:	Text boxes		I	P	C	C	C	C	C	C
	Picture from Clip Art		I	P	C	C	C	C	C	C
	Picture from a File		I	P	C	C	C	C	C	C
	Movie				I	P	C	C	C	C
	Word Art		I	P	C	C	C	C	C	C
	Diagram				I	P	C	C	C	C
	Sound				I	P	C	C	C	C
	Table				I	P	C	C	C	C
	Slide Numbers				I	P	C	C	C	C
	Date and Time				I	P	C	C	C	C
	Hyperlink				I	P	C	C	C	C
	Notes							I	P	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
PRESENTATION										
	Chart							I	P	C
	Background color		I	P	C	C	C	C	C	C
Format:	Text (appropriate font, size, and color)				I	P	C	C	C	C
	Bullets and Numbering				I	P	C	C	C	C
	Slide Design		I	P	C	C	C	C	C	C
	Alignment				I	P	C	C	C	C
	Picture (size and shape)				I	P	C	C	C	C
	Action Settings							I	P	C
Setup:	Animations							I	P	C
	Narration							I	P	C
	Slide Show		I	P	C	C	C	C	C	C
	Slide Transition				I	P	C	C	C	C
	Master Slide							I	P	C
Modify:	Hide Slide							I	P	C
	Loop Settings							I	P	C
	Slide Timings							I	P	C
	Slide		I	P	C	C	C	C	C	C
Delete								I	P	C
Save in different formats (e.g. html, ppt, pps)	Title Slide				I	P	C	C	C	C
Choose appropriate layout	Bulleted List				I	P	C	C	C	C
	Slide order				I	P	C	C	C	C
	Content is clearly stated				I	P	C	C	C	C
Use rules of good presentations	Design is pleasing to the eye				I	P	C	C	C	C
	Design is consistent				I	P	C	C	C	C
	Presentation Handouts							I	P	C
Print:	Outlines							I	P	C
	Notes							I	P	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
DATABASE										
Identify fields that make up a single record.					I	P	C	C	C	C
Enter information into appropriate fields.					I	P	C	C	C	C
Search a database to retrieve specific information.				I	P	P	C	C	C	C
Use logical operators to refine searches. (e.g., = < > And Or Not)				I	P	P	C	C	C	C
Answer comprehension questions using a given electronic resource.				I	P	C	C	C	C	C
Analyze data from an electronic resource and present conclusions.				I	P	C	C	C	C	C
Sort by field type				I	P	C	C	C	C	
Sort by descending and ascending				I	P	C	C	C	C	
Sort using filters						I	P	C		
Navigate through records				I	P	P	C	C	C	
Learn the similarities of a database and a spreadsheet by practicing database skills using a spreadsheet.				I	P	P	C	C	C	

STANDARD TWO

Student will:		P1	P2	P3	P4	4	5	6	7	8
TELECOMMUNICATIONS										
Use templates to present written communication.		I/P/C								
Identify how the community uses telecommunications in everyday activities (e.g., business, library, educational institutions, and government).				I	P	P	C	C	C	C
List advantages and disadvantages of using telecommunications.					I	P	C	C	C	C
Describe ways in which telecommunications tools promote collaboration, research, publication, communication and productivity.					I	P	C	C	C	C
Explore finished products that have been electronically created (e.g., graphs, charts, signs, banners, cards, portfolio piece, technical writing).					I	P	C	C	C	C
Participate in collaborative problem solving activities as a class using interactive communications and online resources (e.g., e-mail, online).					I	P	C	C	C	C
Design, create, and participate in projects which will be published or monitored on the web by the teacher.						I	P	C	C	C
E-MAIL										
Define e-mail	Use language that does not include profanity, socially sensitive remarks or insults.		I	P	C	C	C	C	C	C
Understand and use netiquette.			I	P	P	P	C	C	C	C
Give examples of the appropriate use of e-mail and/or purpose of e-mail (e.g., ask an expert, permission to use other's work, collaboration with peers around the world, communication, submit assignments to teachers, communicate with prospective colleges).					I	P	P	P	P	C
Give examples of the inappropriate use of e-mail (e.g., chain mail, flaming, personal gain, junk mail).					I	P	P	C	C	C
Explain why a password needs to be kept secret.					I	P	C	C	C	C
PRESENTATION										
Explain the purpose of a presentation (e.g., communication, show knowledge of content subject, share information and publish).			I	P	C	C	C	C	C	C
Create multimedia projects individually or as a class activity using age-appropriate software.					I	P	C	C	C	C
Use technology communication to participate in online group projects and learning activities (e.g., CSILE, JCPS Online).					I	P	C	C	C	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Use interactive communications to access remote information and to communicate with others in support of direct and independent learning.					I	P	C	C	C	C
Use templates to present written communication.		I	P	P	C	C	C	C	C	C
Create and or modify multimedia projects individually or as a class activity using age appropriate software (e.g., Microsoft Photo Story).					I	P	C	C	C	C
Identify and discuss the use of multimedia tools to report content area information (e.g., United Streaming, Brain Pop).					I	P	P	C	C	C

STANDARD THREE

Student will:		P1	P2	P3	P4	4	5	6	7	8
Demonstrate knowledge of appropriate use of the Internet.	Education-based research (e.g., gathering data)	I	P	P	C	C	C	C	C	C
Identify and/or use Internet terms.	Home Page	I	P	P	C	C	C	C	C	C
	Favorites/Bookmarks	I	P	P	C	C	C	C	C	C
	Home Icon	I	P	P	C	C	C	C	C	C
	Address Bar	I	P	P	C	C	C	C	C	C
	Links		I	P	C	C	C	C	C	C
	Back		I	P	C	C	C	C	C	C
	Forward		I	P	C	C	C	C	C	C
	Stop		I	P	C	C	C	C	C	C
	Refresh		I	P	C	C	C	C	C	C
	World Wide Web		I	P	C	C	C	C	C	C
	URL		I	P	C	C	C	C	C	C
	Search Engine			I	P	P	C	C	C	C
	Keywords				I	P	C	C	C	C
	Domain							I	P	C
	Search							I	P	C
Identify parts of a URL.	http, www		I	P	C	C	C	C	C	C
	.com				I	P	C	C	C	C
	.gov				I	P	C	C	C	C
	.edu				I	P	C	C	C	C
	.org				I	P	C	C	C	C
	.html				I	P	C	C	C	C
	.mil				I	P	C	C	C	C
	.net				I	P	C	C	C	C
	.tv				I	P	C	C	C	C
	.mobi				I	P	C	C	C	C
	.info				I	P	C	C	C	C
	.us				I	P	C	C	C	C
	.biz				I	P	C	C	C	C
Explain the function of a filter server to block or filter objectionable material.						I	P	P	P	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Open web browser & use the Home, Back, & Forward buttons.			I	P	C	C	C	C	C	C
Identify the JCPS Home Page.		I	P	P	C	C	C	C	C	C
Enter a URL.			I	P	C	C	C	C	C	C
Favorites/Bookmarks	Add favorites/bookmarks.				I	P	C	C	C	C
	Remove a favorite/bookmark.				I	P	C	C	C	C
	Create folders to organize favorites or bookmarks.				I	P	C	C	C	C
Understand the function of links.			I	P	C	C	C	C	C	C
Use links (e.g., displayed in text and graphic format)			I	P	C	C	C	C	C	C
Use search engine(s) to find specific information.					I	P	C	C	C	C
Use keywords when searching.					I	P	C	C	C	C
As a class, discuss when an internet search may be effective.					I	P	C	C	C	C
Use appropriate bibliographic citations for electronic resources. (e.g., web page, data source, picture, music, video, journal article)					I	P	C	C	C	C
Critique web resources for validity of information.	Reliability (Does it come from a personal website or a recognized web domain?)				I	P	P	P	P	C
	Bias (Is the author reputable? What are the author's credentials?)				I	P	P	P	P	C
	Corroboration (Do similar sources present similar information?)				I	P	P	P	P	C
Identify and explain the difference between fact and opinion.					I	P	C	C	C	C
As a class/group, use teacher-selected Internet resources to locate, discuss, and compare information within content areas.					I	P	C	C	C	C
Use web activities for problem solving and critical thinking.					I	P	C	C	C	C
Demonstrate knowledge of current changes in information technology (e.g., take coursework, classes online; videoconferencing).								I	P	C
Demonstrate knowledge of Information Technology (e.g., JCPS Online Scrimmages, Quizzes, Assessments).			I	P	C	C	C	C	C	C
Discuss the various types of technology used in careers (e.g., bar code scanners, handhelds (PDAs).					I	P	C	C	C	C
As a class, use electronic databases to conduct keyword search/filters to meet information needs (e.g., online card catalog).					I	P	C	C	C	C
Use multimedia resources to support learning (e.g., interactive books, educational software, elementary multimedia).		I	P	P	C	C	C	C	C	C
Discuss the Internet as a source of information at school, home, and at the public library.		I	P	P	C	C	C	C	C	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
As a class, use other resources for gaining information to answer essential questions (e.g., electronic, print, people).					I	P	C	C	C	C
Gather and use information from a variety of resources (e.g., websites, CD-ROM encyclopedia, video, audio).					I	P	C	C	C	C

STANDARD FOUR

Student will:		P1	P2	P3	P4	4	5	6	7	8
Employ technology in the development of strategies for solving problems in the real world, as a team or individually.	Use an electronic database to gather resources to answer essential questions.	I	P	P	C	C	C	C	C	C
	Use spreadsheets to organize and calculate data and create graphs to answer a real-life question.					I	P	C	C	C
	Use a word processing document with an embedded table to report results and organize information.					I	P	C	C	C
	Use presentation to report and present information.					I	P	C	C	C
	Use problem-solving, simulation software, and web activities to answer real-world questions.					I	P	C	C	C
Use software to accomplish authentic tasks like preparing budgets or tracking investments.							I	P	P	C
Use appropriate technology tools to successfully engage in higher-order thinking activities.		I	P	P	P	P	P	C	C	C

STANDARD FIVE

Student will:		P1	P2	P3	P4	4	5	6	7	8
Identify and demonstrate knowledge of the Nine Elements of Digital Citizenship.	Digital Access (full electronic participation in society, in school, and out 1 to 1)									I
	Digital Commerce (buy & sell goods online, e.g., Amazon, eBay)									I
	Digital Communication (e.g., e-mail, cell phones, videoconferencing, instant messaging, text messaging, blogs, wikis)				I	I	I	P	P	C
	Digital Literacy (e.g., online courses, blogs, websites, podcasts)				I	I	I	P	P	C
	Digital Etiquette (e.g., flaming, bullying, solicitation, phone on vibrate)				I	P	P	C	C	C
	Digital Law (e.g., BitTorrent, LimeWire, pirating software, hacking, stealing identity)				I	P	P	C	C	C
	Digital Rights and Responsibilities (e.g., UAP, citing sources, cheating, cyberbullying)	I	P	P	P	P	P	C	C	C
	Digital Health and Wellness (e.g., carpal tunnel, eye strain, poor posture, addiction)	I	P	P	P	P	P	C	C	C
	Digital Security (e.g., virus protection, backups, personal information, hackers, identity theft)	I	P	P	P	P	P	C	C	C
Acknowledge ownership of own work (e.g., put name on work).		I/P/C	C	C	C	C	C	C	C	C
Explain that one must have permission to use another person's work or any part of that person's work.			I	P	C	C	C	C	C	C
Identify and cite sources.	Photographs (Resource must be on the same page with picture.)				I	P	C	C	C	C
	Websites				I	P	C	C	C	C
	Electronic book, ezines							I	P	C
	Periodicals, encyclopedias.							I	P	C
Citing Internet sources must include a minimum of four pieces of information (Author's name, Document title, Date of Internet publication, Date of access, and URL).								I	P	C
Identify the copyright symbol.			I	P	C	C	C	C	C	C
Demonstrate knowledge of Copyright Materials.					I	P	C	C	C	C
Know the percentage of material that may be used legally (e.g. MP3s, music, sound).							I	P	P	C
Explain what "Fair Use" means to a student with regard to Copyright Material.							I	P	P	C
Demonstrate legal use of software.					I	P	C	C	C	C
Demonstrate knowledge of Freeware, Shareware, Public Domain Software, and Commercial Software.								I	P	C

Student will:	P1	P2	P3	P4	4	5	6	7	8
Practice safety procedures for virus protection. (No disks, CDs from home; Norton's, McAfee)						I	P	P	C
Explain the legal implications of viruses, hacking, offensive material, and vandalism.				I	P	P	P	P	C
Explain the social implications of viruses, hacking, offensive material, and vandalism (e.g., economic impact on businesses attacked).				I	P	P	P	P	C
Sign and discuss the JCPSNet User Agreement Form.	I	C	C	C	C	C	C	C	C
Explain acceptable and unacceptable computer use for students in JCPS according to the JCPSNet User Agreement Form.				I	P	P	P	P	C
Explain the consequences of violating the JCPSNet User Agreement Form.				I	P	P	P	P	C
Compare attributes of the physical community (where we live) and the cybercommunity.				I	P	P	P	P	C
Describe online situations that may make you feel uncomfortable.				I	P	P	P	P	C
Compare rules in the physical community with the cybercommunity that concern communications between strangers and trusted adults.				I	P	P	P	P	C
Explain that a good citizen is a person who follows rules in a community.	I	P	P	C	C	C	C	C	C
Discuss how a stranger can pretend to be a friend in cyberspace.	I	P	P	C	C	C	C	C	C
Identify a stranger as someone whom you and your parents don't know.	I	P	P	C	C	C	C	C	C
Identify the characteristics of personal information.		I	P	P	P	C	C	C	C
Explain potential risks to personal safety when supplying personal information, choosing a screen name, and selecting a password.		I	P	C	C	C	C	C	C
Discuss the importance of ethical, responsible, and safe behavior when using networked digital information.		I	P	C	C	C	C	C	C
As a class/group or individual, recognize, discuss and model responsible and safe behavior using online resources.		I	P	P	P	C	C	C	C
Recognize and discuss the difference between e-mail, instant messaging, online bulletin boards, blogs, social chat rooms, and online communities.				I	P	C	C	C	C
Describe what to do when an unintended website is entered.		I	P	C	C	C	C	C	C
Explain why a password needs to be kept secret.	I	P	P	C	C	C	C	C	C
Discuss the importance of being a responsible citizen when using technology.		I	P	P	P	C	C	C	C
Participate in Internet projects.		I	P	P	P	C	C	C	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Discuss and follow the five Safety Tips published by the FBI for protecting oneself online:	First, never to give out personal information such as your name, home address, school name, or telephone number in a chat room or on bulletin boards. Also, never send a picture of yourself to someone you chat with on the computer without your parent's permission.	I	P	P	C	C	C	C	C	C
	Never write to someone who has made you feel uncomfortable or scared.	I	P	P	C	C	C	C	C	C
	Do not meet someone or have them visit you without the permission of your parents.	I	P	P	C	C	C	C	C	C
	Tell your parents right away if you read anything on the Internet that makes you feel uncomfortable.	I	P	P	C	C	C	C	C	C
	Remember that people online may not be who they say they are. Someone who says that "she" is a "12-year-old girl" could really be an older man.	I	P	P	C	C	C	C	C	C
Use internet safety skills.			I	P	C	C	C	C	C	C
Respect other people's point of view and ideas when completing a class project.			I	P	C	C	C	C	C	C
Explain why computers and/or other technologies are used for learning.			I	P	C	C	C	C	C	C
Compare and contrast the critical attributes of bullying (real world and virtual world).			I	P	C	C	C	C	C	C
Understand the procedures of how to report cyberbullying.			I	P	C	C	C	C	C	C

STANDARD SIX

Student will:		P1	P2	P3	P4	4	5	6	7	8
Integrate resources from different types of audio and video equipment (e.g., scanner, computer, airliner, video camera, digital camera) to present information. (not tested)						I	P	C	C	C
Distinguish between hardware and software.		I	C	C	C	C	C	C	C	C
Describe and demonstrate proper care of equipment (e.g., keep food, drinks and magnets away from equipment, clean hands, not writing on equipment).		I	C	C	C	C	C	C	C	C
APPLICATIONS										
Identify the purpose of productivity tools such as word processing, spreadsheet, and presentation software.					I	P	C	C	C	C
Create products for content area assignments using appropriate technology.			I	P	C	C	C	C	C	C
Follow on-screen directions.			I	P	C	C	C	C	C	C
Use proofreading and electronic editing skills.			I	P	C	C	C	C	C	C
Start up and shut down computer.		M	C	C	C	C	C	C	C	C
Log on/in	User ID/Password	I	P	C	C	C	C	C	C	C
	Ctrl+Alt+Delete	I	P	C	C	C	C	C	C	C
Select an item from the menu bar or from a toolbar.		I	P	P	C	C	C	C	C	C
Open applications (e.g., File Menu: Open, Start Menu: Program Files)		I	P	P	C	C	C	C	C	C
Quit applications (e.g., File Menu: Quit/Exit, Close X on Windows)		I	P	P	C	C	C	C	C	C
Close document, leaving application open.			I	P	C	C	C	C	C	C
Save		I	P	P	C	C	C	C	C	C
Save with assistance.		I	P	P	C	C	C	C	C	C
Explain the difference between Save and Save As.					I	P	C	C	C	C
Navigate to open a file from different sources and save to specific location.	disk			I	C	C	C	C	C	C
	desktop									
	document folder, other folders							I	P	C
	server							I	P	C
Open a new document.		I	P	P	C	C	C	C	C	C
Navigate to open a saved document.				I	C	C	C	C	C	C
Print documents.			I	P	C	C	C	C	C	C
Use Print Preview/Page View.								I	P	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
REMOVABLE MEDIA										
Care and Handling	Compact Disc, Digital Video Disc, and Data Disk	I	C	C	C	C	C	C	C	C
	Load correctly	I	C	C	C	C	C	C	C	C
	Remove correctly	I	C	C	C	C	C	C	C	C
	Explain the use of a Disk, CD and a DVD.	I	P	P	P	P	C	C	C	C
FILES										
Navigate to open a file from different sources.	Application	I	P	P	C	C	C	C	C	C
	CD		I	P	C	C	C	C	C	C
	Desktop			I	C	C	C	C	C	C
	Folders (different names)				I	P	C	C	C	C
Set up and use multilevel folder filing system.							I	P	P	C
Identify file formats.	.doc .xls .ppt			I	P	P	C	C	C	C
	.rtf .docx .xlsx .pptx .txt				I	P	C	C	C	C
	.pdf .dot .xlt .html .pps						I	P	P	C
Save documents as a variety of file types to move data across platforms.	.doc .xls .ppt			I	P	P	C	C	C	C
	.rtf				I	P	C	C	C	C
	.pdf .dot .xlt .html .pps						I	P	P	C
Use Find/Search to locate files.								I	P	C
Use basic troubleshooting techniques.	Determine if all equipment is on.	I	P	P	C	C	C	C	C	C
	Check mouse connection.		I	P	C	C	C	C	C	C
	Check keyboard connection.		I	P	C	C	C	C	C	C
	Restart					I	P	P	P	C
	Ctrl+Alt+Del, Task Mgr., Restart							I	P	C
	Force Quit							I	P	C
	Check plugs/cables (plug in both ends; check for loose plugs)			I	P	P	P	P	P	C
	Check to be sure correct printer is selected.				I	P	C	C	C	C
Printer Troubleshooting	Print a specific page.			I	P	C	C	C	C	C
Printer Options	Print a specific # of copies.		I	P	P	C	C	C	C	C

Student will:		P1	P2	P3	P4	4	5	6	7	8
Printer Options	Change page orientation.			I	P	C	C	C	C	C
	Select printer. (printer name)				I	P	C	C	C	C
Use multiple open files and applications (e.g., Several word processing documents; Open/use Window Menu or Task Bar; multiple files of the same type; navigate between browser and/or word processing, database).						I	P	C	C	C	C
Demonstrate knowledge of components and functions of a computer system.	Define Server.								I	P	C
	Define LAN.								I	P	C
	Define WAN.								I	P	C
	Define Network.						I	P	C	C	C
Plan and use two or more technologies to complete a content project/assignment (e.g., probe + Excel, Inspiration + Internet).											