

Computer Literacy and Applications

Fairfield Public Schools

Computer Literacy and Applications 6



6th Grade Computer Literacy and Applications

National Standards course is aligned with

- International Society for Technology in Education: ISTE Standards <http://www.iste.org/standards/iste-standards>
- Partnership for 21st Century Skills: Framework for 21st Century Learning <http://www.p21.org/about-us/p21-framework>

ISTE

- 1a – Apply existing knowledge to generate new ideas, products or processes
- 1b – Create original works as a means of personal or group expression
- 2a – Interact, collaborate and publish with peers, experts or others employing a variety of digital environments and media
- 2b – Communicate information and ideas effectively to multiple audiences using a variety of media and formats
- 3b – Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media
- 3c – Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- 3d – Process data and report results
- 4a – Identify and define authentic problems and significant questions for investigation
- 4b – Plan and manage activities to develop a solution or complete a project
- 4c – Collect and analyze data to identify solutions and make informed decisions
- 5a – Advocate and practice safe, legal and responsible use of information and technology
- 5b – Exhibit a positive attitude toward using technology that supports collaboration, learning and productivity
- 5c – Demonstrate personal responsibility for lifelong learning
- 5d – Exhibit leadership for digital citizenship
- 6a – Understand and use technology systems
- 6b – Select and use applications effectively and productively
- 6c – Troubleshoot systems and applications
- 6d – Transfer current knowledge to learning of new technologies

21st Century Skills

1. Self-Direction
 - a. Focus/ Work Habits
 - i. Come to class ready to work?
 - ii. Put in the best effort that you can.
 - b. Effective use of Materials and Resources
 - i. Are you using all tools and materials properly and safely?
 - ii. Can I work with tools and machines independently?
 - iii. Do you know how to use tools and materials properly?
2. Productivity
 - a. Planning
 - i. Did you create a plan to follow before you begin to work?
 - ii. Is your plan well thought out?

- b. Effort
 - i. Put in the best effort that you can.
 - ii. Try the best that you can.
- c. Results/ Final Product
 - i. How does your project look?
 - ii. Did you finish your project?
 - iii. How did your project perform?
- 3. Technology and Tools
 - a. Applications
 - i. Can I use technology and tools appropriately?
 - ii. Can I use technology and tools independently?
 - b. Conduct
 - i. Can I work with technology and tools properly?
 - ii. Can I work without independently or with less assistance?
- 4. Critical and Creative Thinking
 - a. Decision Making
 - i. Can I make my own decisions on my project?
 - ii. Can I exceed project expectations?
 - b. Problem Solving
 - i. Can I solve problems or challenges on my own?
 - ii. Am I willing to try multiple solutions to a challenge or problem presented in class?
 - iii. Can I create alternate solutions on my own?
 - c. Invention and Innovation
 - i. Is my solution to a problem unique?
 - ii. Did my solution to a problem solve the problem
 - iii. Did my project show a high level of creativity?
- 5. Interactive Communication
 - a. Electronic Environments: Familiarity with Digital Tools
 - i. Can I use digital tools properly?
 - ii. What do I know about digital tools?
 - b. Media: Design Elements
 - i. Can I use elements of design?
 - ii. Can I use elements of design independently?

6th Grade Computer Literacy and Applications

Description

This required one marking period 6th grade course is a skills and project based class where students will develop a basic understanding of computer concepts and computer systems, computer applications, digital ethics and responsibilities. Students will also be expected to apply critical thinking, problem solving and creativity to their efforts.

Pre-requisite skills for this class will be demonstrating keyboarding at a basic proficiency level, as well as an understanding of the basic components of a computer system.

Course Overview

Course Goals

Students should be able to

- Demonstrate keyboarding proficiency with appropriate speed and accuracy for the 6th grade level
- Operate effectively within our network
- Organize files and folders
- Understand difference between local and network drives
- Troubleshoot basic computer malfunctions
- Understand how to use the internet safely, effectively and efficiently
- Develop proficiency in document formatting and editing
- Develop proficiency in formatting and editing electronic presentations
- Develop proficiency in formatting and editing spreadsheets and graphing applications

Essential Questions

- How can we use proper posture, finger positioning and focus to effectively type on our school keyboards?
- How can we effectively create, find, save and share files within our school networks?
- How can an electronic portfolio demonstrate our knowledge and learning?
- What steps should be taken to solve hardware or software problems?
- How do we use the internet to efficiently find, use, create and share information safely and ethically?
- Which productivity tool would be appropriate for a given task or project?
- How can computer literacy be applied to our other classes and other areas of life?

Assessments

Pre-requisites

- Demonstrate proficiency in keyboarding skills
- Demonstrate understanding of the basic components of a computer system

Skill Assessments

- Unit Tests
- Document/graphic project
- Presentation project
- Spreadsheet graphing project

Content Outline	Grade Level Skills
I. Unit 1: Keyboarding II. Unit 2: Basic Computer Operations III. Unit 3: Internet Use IV. Unit 4: Document Formatting and Editing V. Unit 5: Presentation Software VI. Unit 6: Spreadsheet Software	Students will demonstrate proficiency in <ul style="list-style-type: none"> • Keyboarding skills • File and folder management • Computer systems and operations • Safe, effective and efficient internet use • Document formatting, editing and graphic design • Presentation software • Spreadsheet software

Pacing Guide								
Marking Period								
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Unit 1 Keyboarding Dispersed throughout entire course	Unit 2 Basic Computer Operations 1 week	Unit 3 Internet Use 1 week	Unit 4 Document Formatting 2 - 3 weeks	Unit 5 Presentation 2 – 3 weeks	Unit 6 Spreadsheets 2 – 3 weeks			

Unit 1 – Keyboarding, dispersed throughout entire course

Unit Objectives	Essential Questions	Assessments
Students will be able to <ul style="list-style-type: none"> • Demonstrate keyboarding proficiency with appropriate speed and accuracy for the 6th grade level 	<ul style="list-style-type: none"> • How can we use proper posture, finger positioning and focus to effectively type on our school keyboards? 	<ul style="list-style-type: none"> • Test
Objectives Students will understand the following concepts <ul style="list-style-type: none"> • Importance of proper posture, finger placement on home row and focusing on typing productivity Students will demonstrate the following skills <ul style="list-style-type: none"> • Proper posture • Finger placement on home row keys 		Suggested Materials/Resources <ul style="list-style-type: none"> • School’s networked computers and printers • School’s typing application software

Unit 2 – Basic Computer Operations, 1 week

Unit Objectives	Essential Questions	Assessments
Students will be able to <ul style="list-style-type: none"> • Operate effectively within our network • Organize files and folders • Understand difference between local, networked and online drives • Troubleshoot basic computer malfunctions 	<ul style="list-style-type: none"> • How can we effectively create, find, save and share files within our school networks? • How can an electronic portfolio demonstrate our knowledge and learning? • What steps should be taken to solve hardware or software problems? 	<ul style="list-style-type: none"> • Network drive activity • Test

<p>Objectives</p> <p>Students will understand the following concepts</p> <ul style="list-style-type: none"> • Difference between local, networked and online drives • Difference between your H drive, P drive, C/D drive, flash drive • Understand how your profile exists on C/D Drive • Difference between file and folder • Definition of file extension and role it plays in software compatibility • Identify file type in Open and Save dialog boxes • When to use different file/folder views (icons, list, details, etc.) • When to copy an image or save an image for later use <p>Students will demonstrate the following skills</p> <ul style="list-style-type: none"> • Create, copy, save, share and move files and folders in either H, P or online drive • Change view folder/file lists (icons, list, details, etc.) • Add a networked printer • Preview a file before printing • Print a file to the correct printer • Printer troubleshooting (display on printer, identify which printer is selected to print, setting default printer) 	<p>Suggested Materials/Resources</p> <ul style="list-style-type: none"> • School’s networked computers and printers
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Unit 3 – Internet Use, 1 week

<p>Unit Objectives</p> <p>Students will be able to</p> <ul style="list-style-type: none"> • Understand how to use the internet safely, effectively and efficiently 	<p>Essential Questions</p> <ul style="list-style-type: none"> • How do we use the internet to efficiently find, use, create and share information safely and ethically? 	<p>Assessments</p> <ul style="list-style-type: none"> • Internet activity • Test
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<p>Objectives</p> <p>Students will understand the following concepts</p> <ul style="list-style-type: none"> • How to effectively search for information on the internet • How to ethically use social networking applications • Students will demonstrate the following skills: • Enter appropriate keywords and parameters when searching for information or images 	<p>Suggested Materials/Resources</p> <ul style="list-style-type: none"> • School’s networked computers and printers • School’s web browser and internet safety resources
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Unit 4 – Word Processing/Graphic Design, 2 - 3 weeks

Unit Objectives	Essential Questions	Assessments
<p>Students will be able to</p> <ul style="list-style-type: none"> • Create an original document using formatting, editing and graphic design features in word processing application. • In the created document, use good elements of design (contrast, consistency, alignment and white space) to communicate a coherent message. • Evaluate samples to examine how elements of design and message were used 	<ul style="list-style-type: none"> • How can we use formatting and editing tools effectively? • How can word processing applications be used as a graphic design tool? • How do we design creative and coherent messages visually? 	<ul style="list-style-type: none"> • Create a product(s) • Test
<p>Objectives</p> <p>Students will understand the following concepts of good design to create a coherent document</p> <ul style="list-style-type: none"> • Contrast dark and light colors among text, images and background • Consistency in font styles, colors and sizes, as well as image formatting • Align text to make it easier to read • White space is used effectively to separate text and images into distinguishable parts, to make it easier to read <p>Students will demonstrate the following skills</p> <ul style="list-style-type: none"> • Format, edit, save and print a coherent document 		<p>Suggested Materials/Resources</p> <ul style="list-style-type: none"> • School’s networked computers and printers • School’s web browser • School’s word processing application software

Unit 5 - Presentation, 2 – 3 weeks

Unit Objectives	Essential Questions	Assessments
<p>Students will be able to</p> <ul style="list-style-type: none"> • Develop proficiency in formatting and editing electronic presentations 	<ul style="list-style-type: none"> • How can we use formatting, editing, and presentation tools effectively? • How do we design creative and coherent presentations? 	<ul style="list-style-type: none"> • Create a product(s) • Presentation • Test

<p>Objectives</p> <p>Students will understand the following concepts of good design to create a coherent presentation</p> <ul style="list-style-type: none"> • Contrast dark and light colors among text, images and background • Consistency in font styles, colors and sizes, as well as image formatting • Align text to make it easier to read • White space is used effectively to separate text and images into distinguishable parts, to make it easier to read <p>Students will demonstrate the following skills</p> <ul style="list-style-type: none"> • Format, edit, save and share a creative and coherent presentation 	<p>Suggested Materials/Resources</p> <ul style="list-style-type: none"> • School’s networked computers and printers • School’s web browser • School’s presentation application software • School’s digital projector
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Unit 6 - Spreadsheets, 2 – 3 weeks

<p>Unit Objectives</p> <p>Students will be able to</p> <ul style="list-style-type: none"> • Use and format a basic spreadsheet • Effectively use formulas in a basic spreadsheet • Create graphs using data • Discern which graph(s) is most effective for conveying data 	<p>Essential Questions</p> <ul style="list-style-type: none"> • How can we use formatting, editing, and mathematical tools effectively? • How do we design visually appealing yet coherent spreadsheets and graphs? • Which type of graph best visually represents our data 	<p>Assessments</p> <ul style="list-style-type: none"> • Create a product(s) • Test
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<p>Objectives</p> <p>Students will understand the following concepts</p> <ul style="list-style-type: none"> • The layout of data in a spreadsheet in cells, rows, columns • The importance of using good elements of design to create a coherent spreadsheet and graph <ul style="list-style-type: none"> ○ Contrast dark and light colors among text, images and background ○ Consistency in font styles, colors and sizes, as well as image formatting ○ Align text to make it easier to read ○ White space is used effectively to separate text and images into distinguishable parts, to make it easier to read • When to use each type of graph (pie chart, bar/column graph, line graph) <p>Students will demonstrate the following skills</p> <ul style="list-style-type: none"> • Format, edit, save and share a creative and coherent spreadsheet and/or graph • Effectively use formulas in a basic spreadsheet 	<p>Suggested Materials/Resources</p> <ul style="list-style-type: none"> • School’s networked computers and printers • School’s web browser • School’s spreadsheet application software
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