

Wayne

Township Public Schools

Wayne, New Jersey

**Middle School Technology Department
6th Grade Computer Applications Curriculum Guide
November 2022
Revised**

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This curriculum may be modified through varying techniques, strategies, and materials as per an individual student's Individualized Educational Plan (IEP)

Approved by the Wayne Township Board of Education at the regular meeting held on
November 15, 2018

Wayne Township Public Schools
Grade 6
Computer Applications Curriculum Guide

Content Area:	Computer Applications
Grade Level:	6
Course:	Computer Applications 6
Unit Plan Title	Digital Citizenship, Typing and Software Operations
Time Frame	10 weeks
Pacing Guide	Pacing is noted within the curriculum in this document

2020 New Jersey Student Learning Standards – Computer Science and Design Thinking

8.1 Computer Science

- 8.1.8.CS.1:** Recommend improvements to computing devices in order to improve the ways users interact with the devices.
- 8.1.8.CS.2:** Design a system that combines hardware and software components to process data.
- 8.1.8.CS.3:** Justify design decisions and explain potential system trade-offs
- 8.1.8.CS.4:** Systematically apply troubleshooting strategies to identify and resolve hardware and software problems in computing systems.
- 8.1.8.NI.1:** Model how information is broken down into smaller pieces, transmitted as addressed packets through multiple devices over networks and the Internet, and reassembled at the destination.
- 8.1.8.NI.2:** Model the role of protocols in transmitting data across networks and the Internet and how they enable secure and errorless communication.
- 8.1.8.NI.3:** Explain how network security depends on a combination of hardware, software, and practices that control access to data and systems.
- 8.1.8.NI.4:** Explain how new security measures have been created in response to key malware events.
- 8.1.8.DA.1:** Organize and transform data collected using computational tools to make it usable for a specific purpose.
- 8.1.8.DA.2:** Explain the difference between how the computer stores data as bits and how the data is displayed.
- 8.1.8.DA.3:** Identify the appropriate tool to access data based on its file format.
- 8.1.8.DA.6:** Analyze climate change computational models and propose refinements.

2020 New Jersey Student Learning Standards – Career Readiness, Life Literacies, and Key Skills

9.2 Career Awareness, Exploration, Preparation, and Training

- 9.2.8.CAP.4:** Explain how an individual’s online behavior (e.g., social networking, photo exchanges, video postings) may impact opportunities for employment or advancement.
- 9.2.8.CAP.17:** Prepare a sample resume and cover letter as part of an application process.

9.4 Life Literacies and Key Skills

- 9.4.8.DC.3:** Describe tradeoffs between allowing information to be public (e.g., within online games) versus keeping information private and secure.
- 9.4.8.DC.4:** Explain how information shared digitally is public and can be searched, copied, and potentially seen by public audiences.

- 9.4.8.DC.5:** Manage digital identity and practice positive online behavior to avoid inappropriate forms of self-disclosure.
- 9.4.8.DC.6:** Analyze online information to distinguish whether it is helpful or harmful to reputation.
- 9.4.8.DC.7:** Collaborate within a digital community to create a digital artifact using strategies such as crowdsourcing or digital surveys.
- 9.4.8.IML.3:** Create a digital visualization that effectively communicates a data set using formatting techniques such as form, position, size, color, movement, and spatial grouping (e.g., 6.SP.B.4, 7.SP.B.8b).
- 9.4.8.IML.4:** Ask insightful questions to organize different types of data and create meaningful visualizations.
- 9.4.8.IML.11:** Predict the personal and community impact of online and social media activities.
- 9.4.8.IML.12:** Use relevant tools to produce, publish, and deliver information supported with evidence for an authentic audience.
- 9.4.8.TL.3:** Select appropriate tools to organize and present information digitally.

Interdisciplinary Standards: New Jersey Learning Standards for English Language Arts Companion Standards Grades 6-8

Anchor Standards for Reading

Key Ideas and Details

NJLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

Progress Indicator For Reading Science and Technical Subjects

Key Ideas and Details

RST.6-8.7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

Unit Summary

Students will learn about digital citizenship and how to be safe and effective participants in the digital world. They will gain an awareness of the rights and responsibilities of digital citizenship and how to effectively communicate and collaborate in a digital environment. Students will increase their typing speed by engaging in numerous touch typing activities.

Students will build on their technology skills. This will include working within word processing, multimedia and other software programs. They will be given the opportunity to work in a team like environment that mirrors the collaborative real world workplace of the 21st century.

Essential Questions

- How can keyboarding and computer skills help you succeed in school and a career?
- How is keeping up with new technological situations/experiences important in today's digital world?
- What is appropriate use of social media?
- What is appropriate use of digital content?
- How can technology be used to work collaboratively with others?
- How can the Internet be used to effectively gather a variety of research from valid/reliable sources?
- How do advanced formatting features of programs improve the quality of the final product?
- In what aspects of everyday life has the use of technology had a major impact?
- How can a multimedia presentation be used to keep an audience informed and engaged?
- How can a spreadsheet present accurate findings of collected data?

Enduring Understandings

- Understand and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics, including appropriate use of social media
- Assess the credibility and accuracy of digital content
- Understand appropriate uses for social media and the negative consequences of misuse
- Understand appropriate application of copyright, fair use and/or Creative Commons to an original work
- Responsible digital citizenship requires effective oral, written and online communication and collaboration skills
- Understand the importance of software skills.
- Understand the various applications of software programs and how different programs can be used to complete a variety of tasks.
- Realize that technology skills can be used to enhance work in other disciplines.

In this unit plan, the following 21st Century themes and skills are addressed.

21 st Century Themes		21 st Century Skills	
X	Global Awareness	X	Creativity and Innovation
<input type="checkbox"/>	Environmental Literacy	X	Critical Thinking and Problem Solving
<input type="checkbox"/>	Health Literacy	X	Communication
<input type="checkbox"/>	Civic Literacy	X	Collaboration
X	Financial, Economic, Business, and Entrepreneurial Literacy		
Student Learning Targets/Content		Learning Activities	

Week 1

Students will understand the implications of various cyber activities

Students will recognize copyright symbols on digital content

Students will recognize the impact of one's digital footprint and the value of digital citizenship.

Students will identify components of cyber safety including; cyber predators, cyber bullies and appropriate use of online gaming

Week 2

Students will be able to use the correct techniques when operating a keyboard.

Students will identify the components of email design and delivery

Week 3

Students will be able to upload and download files to and from a "cloud" environment

Week 4-6

Use basic skills to create and modify their documents using the following skills:

- Selecting fonts, styles and size
- Text Alignment, wrap and columns
- Page Orientation and Marking

Week 7-9

Create a multimedia presentation using presentation software.

- Change and edit slides
- Arrange layout of graphics and text
- Add transitions, sounds animations and timing

Week 10

Set up a spreadsheet

- Identify cells, columns and rows
- Create graphs
- Create simple formulas

Week 1

Internet Safety - Discuss online safety and acceptable use, review appropriate behaviors by using tools such as netsmartz.org to guide learning

Week 2

Introduction to Keyboarding

Students will demonstrate an ability to type with correct technique and continue to improve

Students will demonstrate how to draft an appropriate written email.

Week 3

Cloud Storage - Demonstrate uploading and sharing files, managing files and directories

Week 4-6

Introduction to working with documents and formatting skills:

- fonts, styles size
- text alignment, wrap and columns
- page orientation

Students will review online content in multiple media formats to pull information to create their document

Week 7-9

Introduction to multimedia software and presentations

- change and edit slides
- arrange layout of graphics and text
- add transitions, sounds, animations and timing

Week 10

Introduction to spreadsheet software

- identify cells, columns and rows
- create graphs
- create simple formulas

Students will integrate a graph to display the progress of their typing speed

Assessments

B = Benchmark S = Summative F = Formative A/PB=Alternative

Benchmark Assessment:

Week 1: Students will be asked to demonstrate their current typing ability

Week 10: Students will demonstrate an up to date typing ability and their growth.

Formative Assessment:

Week 4-5: Introduction to Documents

Teacher will introduce and examine students' ability to work within documents and apply formatting skills.

Week 7-8: Introduction to Multimedia

Teacher will introduce and examine students' ability to work within documents and apply formatting skills.

Week 10: Introduction to Spreadsheet Software

Teacher will introduce and examine students' ability to work within documents and apply formatting skills.

Summative Assessment:

Weeks 6: Introduction to Documents

Teacher checklist from rubric of demonstration of various formatting skills.

Weeks 9: Introduction to Multimedia

Teacher checklist from rubric of demonstration of various formatting skills.

Alternative/Performance Based Assessment

Students are asked to review a current newspaper and identify all of the formatting skills by name.

Integrated accommodations and modifications for the following students:

504

Gifted and Talented

At Risk

ELL

Special Education

[Differentiation Strategies for 504 Students: Computer Applications](#)

[Differentiation Strategies for G&T Students: Computer Applications](#)

[Differentiation Strategies for At Risk Students: Computer Applications](#)

[Differentiation Strategies for ELL Students: Computer Applications](#)

[Differentiation Strategies for Special Education Students: Computer Applications](#)

Resources

- www.netsmartz.org
- www.typingtest.com

- www.typing.com
- <https://code.org/learn>
- <https://www.tinkercad.com/lessonplans>
- <https://scratch.mit.edu/>
- <https://applieddigitalskills.withgoogle.com/s/en/home>
- <https://edu.gcfglobal.org/en/>
- <https://app.bsd.education/>
- Google Apps for Education
- Word Processing Software
- Presentation Software
- Spreadsheet Software