MILLSTONE TOWNSHIP SCHOOL DISTRICT
Computer Course 2021/22
GRADE: 2
(Updated October 2021)

<table>
<tr><td colspan="2">Unit of Study: Computers 2nd grade</td></tr>
<tr><td colspan="2">Unit Overview:
All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge</td></tr>
<tr><td>Enduring Understandings:</td><td>Essential Questions:</td></tr>
<tr><td>● Students will demonstrate appropriate and effective use of technology
● Students will work with all of the tools and features of word processing, spreadsheets, multimedia presentations, and graphic design layouts.
● Students will develop an understanding that digital tools offer opportunities for new experiences and collaboration that support creative and innovative approaches.
● Students will explore computer programming skills for real world application.
● Students will improve their keyboarding skills in individual accuracy.</td><td>● When do you use each type of software -document, spreadsheet, presentation, graphic design layout)?
● How do you use the key tools for a word document, spreadsheet, presentation, graphic design?
● What searching techniques help when using the Internet to locate information?
● How do you determine what web site to use – reliability check?
● How does technology improve/change your lifestyle?
● Why is it important to use proper keyboarding techniques?</td></tr>
<tr><td>Objectives/Teaching Points:</td><td>NJ Student Learning Standards:</td></tr>
<tr><td>● Explore differences between various softwares.
● Focus on the home row keys to improve typing skills
● Focus on word processing, spreadsheet, and multimedia presentation skills.
● Create and design a multimedia presentation
● Utilize different types of design techniques (text formatting, layout and colors) to create a brochure or document.
● Explain the uses of the Internet and its impact on daily life.
● Work together in groups as well as individually to demonstrate computer knowledge and skills.</td><td>8.1 Computer Science by the End of Grade 2
8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems.
8.1.2.CS.3: Describe basic hardware and software problems using accurate terminology.
8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.
8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide.</td></tr>
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	8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others. 8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide. 8.1.2.NI.3: Explain why it is important to create unique passwords that are not shared with others. 8.1.2.NI.4: Explain why access to devices need to be secured. Collaborate to solve a simple problem, or to illustrate how to build a product using the design process. **8.2 Design Thinking by the End of Grade 2** 8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process. 8.2.2.ITH.1: Identify products that are designed to meet human wants or needs. 8.2.2.ITH.2: Explain the purpose of a product and its value. 8.2.2.ITH.3: Identify how technology impacts or improves life. 8.2.2.ITH.4: Identify how various tools reduce work and improve daily tasks. 8.2.2.NT.2: Brainstorm how to build a product, improve a designed product, fix a product that has stopped working, or solve a simple problem. 8.2.2.ETW.1: Classify products as resulting from nature or produced as a result of technology. 8.2.2.ETW.2: Identify the natural resources needed to create a product. 8.2.2.EC.1: Identify and compare technology used in different schools, communities, regions, and parts of the world. **Media Arts** 1.2.2.Pr5b: Identify, describe and demonstrate basic creative skills such as trial-and-error and playful practice, within media arts production.

	1.2.2.Cr1a: Discover, share and express ideas for media artworks through experimentation, sketching and modeling. 1.2.2.Pr4a: With guidance and moving towards independence, combine art forms and media content into media artworks such as an illustrated story or narrated animation. 1.2.2.Cn10a: Use personal experiences, interests, information and models in creating media artworks.

2020 NSLS Career Readiness, Life Literacies & Key Skills

CRP1. Act as a responsible and contributing citizen and employee
CRP2 Apply appropriate academic and technical skills
CPR6 demonstrate creativity and innovation
CRP7. Employ valid and reliable research strategies.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP11. Use technology to enhance productivity.
9.1.2. FI.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards)
9.1.2.PB.2: Explain why an individual would choose to save money.
9.4.2.CI.2: Demonstrate originality and inventiveness in work
9.4.2.DC.1: Explain differences between ownership and sharing of information.
9.4.2.DC.5: Explain what a digital footprint is and how it is created.
9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools
9.4.2.TL.2: Create a document using a word processing application.

Interdisciplinary Connection

Language Arts- create a personal letter, a research paper

NJSLSA.W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Social Studies- Family history, president history
6.1.2.CivicsPI.1: Describe roles and responsibilities of community and local government leaders (e.g., mayor, town council).
6.1.2.CivicsPI.2: Investigate the importance of services provided by the local government to meet the needs and ensure the safety of community members
Science- constellations, animal research
2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

Learning Experiences:	Assessments:
The following learning experiences will help students explore the big ideas and essential questions: **Computer Skills/ Techniques observation:** ● Demonstration of techniques for using various software programs ● Interaction with other students designing/creating in unique methods. ● View teacher-made projects previously made prior to creating their own. **Computer Skills/Techniques exploration:** ● Working with MS Office software (Word, Excel, PowerPoint and Publisher. ● Introduce and expand use of Google docs and drive ● Explore various effects and options to enhance projects. ● Creating various types of projects using skills demonstrating student knowledge and understanding. ● Students sharing new creative ideas.	**Formative Assessment:** **Summative Assessment** ● Grading Rubrics which include sections for ○ **Appearance** (focus on color, size and layout) ○ **Computer Skills** (depending on project and software) ○ **Information** (correct, current, and informative, audience based) ○ **Printing** (Correct printer, fit on required # of pages, and one time) **Alternative Assessment and Student Self-Assessment** ● Follows directions, safety concerns, and classroom procedures ● Demonstrates creativity within projects and software. ● Experiments with a variety of tools and techniques available in software. ● Seeks to explore options not required /demonstrated to enhance the overall project. **Benchmark** ● SGO Keyboarding evaluation ● Teacher observation ● Review finished product

Ideas for Differentiation:

Based on the needs of the students, there may be a need for additional teaching points, extending beyond or substituting in for those outlined in the curriculum map.

English Language Learners:

- Speak and display terminology and movement
- Teacher modeling
- Peer modeling
- Develop and post routines
- Label classroom materials
- Word banks

IEP/504 Learners:

- Utilize modifications and accommodations delineated in the student's IEP
- Work with paraprofessional
- Use multi-sensory teaching approaches. Provide helpful visual, auditory, and tactile reinforcement of ideas.
- Work with a partner
- Provide concrete examples and relate all new strategies to previously learned strategies.
- Solidify and refine concepts through repetition.

Students at Risk of Failure:

- Using visual demonstrations, illustrations, and models
- Give directions/instructions verbally and in simple written format.
- Peer Support
- Teachers may modify instructions by modeling what the student is expected to do
- Instructions may be printed out in large print and hung up for the student to see during the time of the lesson.
- Review behavior expectations and make adjustments for personal space or other behaviors as needed.
- Oral prompts can be given

Gifted and Talented Learners:

- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher order thinking skills
- Adjusting the pace of lessons
- Interest based content
- Real world scenarios
- Student Driven Instruction

Suggested Resources:

Student Materials:
Technology:

- Google Docs, Sheets,Slides,Google Paint
- Paint
- Internet for information, images and sounds
- Code.org (programming skills)
- Keyboarding- rapidtyping, BBC Typing
- ABCYA,Starfall,Seusville(reading)

Teaching Materials:

Smart board
Worksheets
Direction worksheets
Samples

Teacher Resources:
Websites
Lesson plans