Wallenpaupack Area School District
Planned Course Curriculum Guide

Department: Technology

Name of Course: Computers 3-5

Course Description:

All students will have the opportunity to become familiar with the tools they will be expected to use with proficiency across the CS Curriculum. Through this exposure, students gain a positive view of technology as a tool for learning. At each grade level, students will learn about algorithms and programming, computing systems, the Internet, and impacts of computing, while developing strong practices and dispositions. Lessons are designed to be implemented in 35-40 minute periods approximately once per week.

Revision Date: October 2022-2023

Wallenpaupack Area School District Curriculum	
COURSE: Computers	**GRADE/S: 3-5**
UNIT 1: Coding	**TIMEFRAME: 8-10 class periods**

CSTA STANDARDS:

- **1B-AP-08**
- **1B-AP-09**
- **1B-AP-10**
- **1B-AP-11**
- **1B-AP-12**
- **1B-AP-13**
- **1B-AP-14**
- **1B-AP-15**
- **1B-AP-16**
- **1B-AP-17**

UNIT OBJECTIVES (SWBATS):

- Explore coding and spark an interest in coding
- Learn that Coding is a set of instructions that computers use to complete a task
- Understand the educational and career concepts that support students learning to code
- Practice some simple coding using free online resources
- Research and report on coding programs and resources available for varied skill levels and goals
- Evaluate your new knowledge of coding and plans to implement a coding program

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Osmo (Awbie/Coding Jam/Tangrams/Words/Numbers/Duo)
- Code and Go Mouse
- Code and Go Mouse Board Game
- Kibo
- Microbit
- Makey-Makey
- Code-A-Car/Rocket
- Coding and Robotics (PB&J)
- Code-a-Pillar
- Little Bits
- Kano
- Hour of Code
- Cubetto
- Scratch
- Artie 3000
- Puzzlets
- Sphero

ANCHOR VOCABULARY:

- Network, Internet, Data, Analysis, Algorithms and Programing, Computing, Argument, Array, Code, Conditional, Function, Loop, Method, Object, Operator, Properties, Sequence

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

- Teacher Observation

EVIDENCE OF MASTERY/Cut Score:

- Coding Checklist

DIFFERENTIATED INSTRUCTION (Remediation/Extension)

- Students will be able to preview the project and associated support materials before instruction begins
- Students will be aware of the key ideas / outcomes of the project. What should students know or be able to do after completing a Coding project?
- Students will be able to play with the Coding projects, so they understand how they work.
- Teachers will encourage students to collaborate with peers
- As students become efficient in collaborating with peers, teacher will provide less support and encourage independence.
- Teacher will recognize that learning sometimes happens through productive struggle. Intervening too quickly may limit their ability to think through the problem.
- While a little struggle is effective, too much may result in a student giving up. If the struggle becomes too much, have the student take a break and do something else for a little while.
- Teacher will use the "least to most prompting" strategy. Begin with the least amount of support the student requires and move towards more as needed.

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

- Code.org, scratch.com, coding manipulatives, microbit.com, letsstartcoding.com

RESOURCE SPECIFIC VOCABULARY:

- Network, Internet, Data, Analysis, Algorithms and Programing, Computing, Argument, Array, Code, Conditional, Function, Loop, Method, Object, Operator, Properties, Sequence

Wallenpaupack Area School District Curriculum	
COURSE: Computers	**GRADES: 3-5**
UNIT 2: Mechanics	**TIMEFRAME: Continuous**

CSTA Standards:

- **1B-CS-01**
- **1B-CS-02**
- **1B-CS-03**
- **1B-CS-04**
- **1A-DA-05**

UNIT OBJECTIVES (SWBATS):

- Students will understand the basic operations and concepts of technology.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Recognize and use individual log ins and passwords
- Use headphones, mouse, keyboard, monitor, touchscreen
- Demonstrate responsible use of technology and equipment
- Networking: logging on and off, recognizing appropriate programs, maximizing, minimizing, closing out of programs
- Identify and use parts of a keyboard
- Use appropriate sitting position and hand placement
- Launch, navigate and quit programs
- Utilize menu options and commands: open, close, print, save, delete
- Use the keyboard to type sentences, paragraphs, and stories (using capital and lower case)
- Launch internet and access websites; toggle between one more than one webpage
- Share information electronically
- Typing rate of 10, 15, 20 words per minute, proper posture and technique with 90% or better accuracy
- Use teacher-selected Internet resources to view online information
- Use LMS and SSO for classroom content

ANCHOR VOCABULARY:

headphones, mouse, keyboard, monitor, touchscreen, menu, logging on/off, restart, shut down, maximize, minimize, launch, quit, open, print, save, website, Internet

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

- Teacher Observations
- Checklists

EVIDENCE OF MASTERY/Cut Score:

- Teacher Observation

DIFFERENTIATED INSTRUCTION (Remediation/Extension)

- Students will be aware of the key ideas / outcomes of the project.
- Teachers will encourage students to collaborate with peers
- As students become efficient in collaborating with peers, teacher will provide less support and encourage independence.
- Teacher will recognize that learning sometimes happens through productive struggle. Intervening too quickly may limit their ability to think through the problem.
- While a little struggle is effective, too much may result in a student giving up. If the struggle becomes too much, have the student take a break and do something else for a little while.
- Teacher will use the “least to most prompting” strategy. Begin with the least amount of support the student requires and move towards more as needed.

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

- LMS

- SSO
- Teacher selected apps and websites
- Teacher created projects/assignments

RESOURCE SPECIFIC VOCABULARY:
Headphones, mouse, keyboard, monitor, touchscreen, menu, logging on/off, restart, shut down, maximize, minimize, launch, quit, open, print, save, website, Internet

Wallenpaupack Area School District Curriculum	
COURSE: Computers	**GRADES: 3-5**
UNIT 3: Projects and Problem-Solving	**TIMEFRAME: Continuous**

CSTA Standards

- **1B-DA-06**
- **1B-DA-07**
- **1B-AP-11**
- **1B-AP-12**
- **1B-IC-18**
- **1B-IC-19**
- **1B-IC-20**
- **1B-IC-21**

UNIT OBJECTIVES (SWBATS):

- Students will use technology productivity and communication tools to enhance learning, increase productivity, and promote creativity

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Create documents/presentations/ for various subject-related multimedia assignments
- Integrate various media (text, audio, images, tables, graphs, animations, hyperlinks video, etc.) in a multimedia presentation
- Use local and cloud-based technology tools to participate in projects.
- Use spell and grammar check
- Use a variety of district-approved web tools to collaborate and communicate with peers, experts, and other audiences using appropriate academic language
- Discuss the need to cite sources and give credit to electronic sources
- Work collaboratively when using technology
- Use paint and drawing tools to manipulate objects and graphics
- Correctly perform the following in presentation software: choose theme, add slides, add/insert multimedia, play presentation
- Publish information in a variety of media (ex. printed copy, monitor display, screenshot, video)
- Identify a web search as a tool for gathering information.
- Search for information using child-friendly search engines.
- Use electronic resources to gather information.
- Use technology tool to plan, gather, organize, present, and evaluate information which solves a problem (ex. graphic organizer, chart, graph, word processor, slideshow)
- Use appropriate search strategies (identifying keywords for electronic searches and evaluating relevance, gathering techniques, sorting and reporting information strategies)
- Evaluate resources for accuracy, authority, reliability, currency, usefulness, and relevance
- Use software programs to generate tables, charts, and graphs to display data in various curricular areas
- Identify reliable types of websites by examining their domain names (ex. .edu, .gov, .org, .com, .net)
- Locate the author/creator from a website to determine credibility of the information with assistance

ANCHOR VOCABULARY:

- Presentation, text, graphics, key words, electronic search, publishing, multimedia, formatting, reliable/unreliable, graphic organizer, slide show, data, ownership, rubric, copyright, audio, animations, video, collaborate, cite sources, hyperlink, communicate, cloud based, accuracy, authority, usefulness, relevance, domain names, credibility

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

- Teacher Observation
- Project/Checklist

EVIDENCE OF MASTERY/Cut Score:

- Teacher Observation
- Presentation
- Project Rubric

DIFFERENTIATED INSTRUCTION (Remediation/Extension)

- Students will be aware of the key ideas / outcomes of the project.
- Teachers will encourage students to collaborate with peers
- As students become efficient in collaborating with peers, teacher will provide less support and encourage independence.
- Teacher will recognize that learning sometimes happens through productive struggle. Intervening too quickly may limit their ability to think through the problem.
- While a little struggle is effective, too much may result in a student giving up. If the struggle becomes too much, have the student take a break and do something else for a little while.
- Teacher will use the "least to most prompting" strategy. Begin with the least amount of support the student requires and move towards more as needed.

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

- All assignments provided by teacher
- iPads, Computers, Internet Access
- LMS
- SSO
- Teacher selected apps and websites

RESOURCE SPECIFIC VOCABULARY:

Presentation, text, graphics, key words, electronic search, publishing, multimedia, formatting, reliable/unreliable, graphic organizer, slide show, data, ownership, rubric, copyright, audio, animations, video, collaborate, cite sources, hyperlink, communicate, cloud based, accuracy, authority, usefulness, relevance, domain names, credibility

Wallenpaupack Area School District Curriculum	
COURSE: Computers	**GRADES: 3-5**
UNIT 4: Digital Citizenship	**TIMEFRAME: 2 class periods**

CSTA STANDARDS:

- **1B-NI-05**
- **1B-IC-18**
- **1B-IC-19**
- **1B-IC-19**
- **1B-IC-20**

UNIT OBJECTIVES (SWBATS):

- Students recognize the rights, responsibilities, and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Common Sense Education Digital Citizenship Curriculum

ANCHOR VOCABULARY:

- Presentation, text, graphics, key words, electronic search, publishing, multimedia, formatting, reliable/unreliable, graphic organizer, slide show, data, ownership, rubric, copyright, audio, animations, video, collaborate, cite sources, hyperlink, communicate, cloud based, accuracy, authority, usefulness, relevance, domain names, credibility

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

- Lesson Quiz
- Reflection

EVIDENCE OF MASTERY/Cut Score:

- Teacher Observation

DIFFERENTIATED INSTRUCTION (Remediation/Extension)

- Students will be aware of the key ideas / outcomes of the project.
- Teachers will encourage students to collaborate with peers
- As students become efficient in collaborating with peers, teacher will provide less support and encourage independence.
- Teacher will recognize that learning sometimes happens through productive struggle. Intervening too quickly may limit their ability to think through the problem.
- While a little struggle is effective, too much may result in a student giving up. If the struggle becomes too much, have the student take a break and do something else for a little while.
- Teacher will use the “least to most prompting” strategy. Begin with the least amount of support the student requires and move towards more as needed.

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

- Common Sense Education Digital Citizenship Curriculum
- Lesson Slides, Video, Handouts, Quiz

RESOURCE SPECIFIC VOCABULARY:

- Password, phrase, symbol, username, empathy, interpret, hardwired, personal information, private information, register (online), digital citizen, cyberbullying,

upstander, advertising, clickbait, headline, curiosity gap, bully, bullying, bystander, cyberbullying, empathy, target, upstander