

Grade:6 Subject: Computer Science

Unit 1: Digital Citizenship

The students will learn to be responsible and active in online communities while becoming thoughtful and empathetic digital citizens.

Unit 2: Applied Digital Skills

The students will use a variety of Google Productivity tools to create exciting and practical digital products for work and life.

Unit 3: Problem Solving & Computing

The students will explore problem solving and computing in a highly interactive and collaborative introduction to the field of computer science, as framed within the broader pursuit of solving problems. Students will practice using a problem solving process to address a series of puzzles, challenges, and real world scenarios.

UNIT 1- Digital Citizenship

Subject: Grade: Time Frame:	Computer Science Grade 6 3 Weeks
Enduring Understanding	<ul style="list-style-type: none">● Students should consider the impact of their digital identity and reputation.
Essential Questions	<ul style="list-style-type: none">● What is a digital footprint?● How do my digital actions affect myself and others?● What are the rights and responsibilities of digital creators?
Performance Expectations	<ul style="list-style-type: none">● Define Digital Citizenship● Differentiate between personal and private information● Distinguish what is safe, and not safe to share online● Differentiate between a passive, and active digital footprint● Analyze the permanence of digital actions● Apply and practice behaviors of positive digital citizens● Understand their rights and responsibilities as digital creators, including giving proper credit when using someone else's work.

UNIT 2- Applied Digital Skills

Subject: Grade: Time Frame:	Computer Science Grade 6 3 Weeks
Enduring Understanding	<ul style="list-style-type: none">● Students will be able to effectively utilize Google Productivity tools to help them stay more organized and efficient while computing.● Students will learn to create captivating and professional presentations.● Students will contribute to digital collaboration in meaningful and responsible ways.
Essential Questions	<ul style="list-style-type: none">● What are the advantages to using a digital calendar?● How can using a digital calendar increase productivity and efficiency?● What are characteristics of a successful multimedia presentation?● How can one partake in meaningful and responsible digital collaboration?
Performance Expectations	<ul style="list-style-type: none">● Apply proper naming conventions to files and folders in Google Drive● Create events in Google Calendar● Utilize events in Google Calendar to increase productivity● Understand the importance of proper slideshow design elements● Apply proper slideshow design elements when creating a multimedia presentation● Insert/embed multimedia content into a Google Slide presentation● Apply presentation tools when delivering a Google Slide presentation● Compare and contrast characteristics of successful and unsuccessful presentations● Apply public speaking skills when delivering a presentation

UNIT 3- Problem Solving & Computing

Subject: Grade: Time Frame:	Computer Science Grade 6 6 Weeks
Enduring Understanding	<ul style="list-style-type: none"> ● Students should be able to identify input, output, storage, and processing as four essential components of a computing device and explain the role that each component takes when computers are used to solve informational problems. ● Students should be able to define and use a structured problem solving process, identifying key components of the process and how they apply to various problems. Students should use multiple strategies to approach problems, iteratively improving on the solution through collaboration and reflection. ● Students should combine their understandings of computing and problem solving to identify and design solutions for computational problems. In doing so, they should develop algorithms that can automate the processing of information, producing a desired output from a given input.
Essential Questions	<ul style="list-style-type: none"> ● What strategies and processes can I use to become a more effective problem solver? ● How do computers help people to solve problems? ● How do people and computers approach problems differently? ● What does a computer need from people in order to solve problems effectively?
Performance Expectations	<ul style="list-style-type: none"> ● Identify a computer as a machine that processes information and give a high level description of the input-output-storage-processing model of computing devices. ● Identify the inputs and outputs of common computing devices and select the inputs and outputs used to perform common computing tasks. ● Provide examples of common types of information that is stored on a computer and explain the need for storage as part of processing information with a computer. ● Define processing as the work done (possibly by a computer) to turn an input into an output and define an algorithm as the series of commands a computer uses to process information ● Given various problems, identify individual actions that would fall within each step of a structured process to solve

them.

- Assess how well defined a problem is and use strategies to define the problem more precisely
- Consider various approaches to solving a problem, and decide which is the most appropriate
- Carry out and evaluate a solution to a problem, iteratively improving on it as needed
- Choose problems that can be solved with computing and justify those choices.
- Identify the inputs associated with a given problem, and define the processing and storage needed to produce the desired output.
- Develop and iteratively improve algorithms for processing information.