

BE 3215 : Foundations of Creating Coding and Computer Solutions

Virginia Beach City Public Schools ensures equal access to all CTE courses. Accessibility accommodations will be provided as needed.

This nine-week course provides basic exploratory activities in computer software applications and coding fundamentals. Students learn to create computer programs that will help them learn to collaborate with others, develop problem-solving skills, and persist through difficult tasks. They will study programming concepts, computational thinking, digital citizenship, and develop interactive games or stories they can share. This course is open to students in grades 6 through 8, and serves as the foundation for the Creative Coding and Computer Solutions II course.

Subject Area

Business and Information Technology

Level

Middle School

Grades

6





7

8

Parent Docs

[Foundations of Creating Coding and Computer Solutions Parent Doc 2021-2022](#)

Storyboard

	Computer Security and Software	Programming and Sequencing	Loops and Digital Sharing	Conditionals and More Loops
Unit				
Focus	<p>We begin this course by learning how software applications are used to complete a variety of tasks. Additionally, we learn the importance of using up-to-date security software to secure our equipment and data and how to conduct ourselves in a digital environment.</p>	<p>Next, we discover how to write programs in the correct sequential steps to complete tasks and solve problems. When we encounter problems within our code, we learn to use the process of debugging to find and fix our errors.</p>	<p>Then, we learn to recognize patterns within our programs and use loops to help them work more efficiently. Because we want to share our created work in a digital environment, we learn about copyright laws related to intellectual property to ensure we utilize and share online content appropriately.</p>	<p>Finally, we learn how if/then statements, while loops, and if/else statements are used within a program to complete a task. We continue using loops to help make our codes run more efficiently.</p>
Transfer Goals	<ul style="list-style-type: none"> Bridge the academic, employability, and technical skills to prepare us for emerging occupations. Empower us to be successful citizens, workers, and leaders in a global economy. 	<ul style="list-style-type: none"> Bridge the academic, employability, and technical skills to prepare us for emerging occupations. Empower us to be successful citizens, workers, and leaders in a global economy. 	<ul style="list-style-type: none"> Bridge the academic, employability, and technical skills to prepare us for emerging occupations. Empower us to be successful citizens, workers, and leaders in a global economy. 	<ul style="list-style-type: none"> Bridge the academic, employability, and technical skills to prepare us for emerging occupations. Empower us to be successful citizens, workers, and leaders in a global economy.

**Unit
Learning
Targets**

- Define terms associated with keyboarding, word processing, database, spreadsheets, and security.
- Analyze and choose appropriate tools and/or software needed to complete a task.
- Use online resources safely and responsibly.
- Define key terms associated with programming.
- Create a basic program using sequential steps.
- Debug a program using critical thinking skills and problem-solving techniques.
- Use loops to make a program work more efficiently.
- Adhere to copyright regulations when sharing content on a digital platform.
- Identify when to use an if/else, if/then, or while loop within a program.
- Use a combination of loops to make a program work more efficiently.