



Southmoreland School District Coding 7 Curriculum Overview

Coding 7 Overview:

Coding 7 introduces students to the evolution of computing devices and the growth of computing needs. Students learn about the binary number system and how computers make use of binary representations, as well as the various different methods that computers use to communicate with each other. Students will build on their skills in the G Suite with more advanced projects, with Google Sheets being introduced.

Module Titles:

Module 1: Google Slides Research and Intro to Sheets

Module 2: Computer Devices/Needs

Module 3: Advanced Scratch Programming - Loops

Module 4: Advanced Scratch Programming - Booleans/Conditionals

Module Overviews:

Module 1: Google Slides Research and Intro to Sheets

Students will create a variety of google slide presentations. Students will be able to choose a place to research and create a presentation out of the place. Students will create multiple different presentations where they gain skills in adding themes, transitions and animations. Students will be introduced to google sheets and learn the basics.

Module 2: Computer Devices/Needs

Students will learn all about the computer. This non-coding Intersession focuses on computer hardware and software basics. Students will learn the four key characteristics that all computers have in common, then learn about the parts of computers. Finally, students will trace the history of computers, from their invention years ago to the modern day.

Module 3: Advanced Scratch Programming - Loops

In this unit, students will be introduced to loops. Students will work through a series of animation projects in Scratch that focus on making the distinction between both bitmap and vector graphics, and sprites and backgrounds, while also learning how to work with sprite costumes. Students will demonstrate their understanding of these concepts with the completion of an animation project.



Southmoreland School District Coding 7 Curriculum Overview

Module 4: Advanced Scratch Programming - Booleans/Conditionals

Students will be introduced to booleans and conditionals in this unit. Using these concepts, students will create programs that perform different tasks based on various conditions, or parameters, through the use of if-then and if-then-else statements. These Scratch projects are game-based and will ask students to focus on considering how users will interact with their games through the use of the sensing category of code blocks.