Unit 2 Web Development

Content Area: **21st Century Life & Careers**
Course(s): **Generic Course**
Time Period: **Generic Time Period**
Length: **1 Semester**
Status: **Published**

Unit Introduction

Unit 2: Unit 2 improves upon students existing understanding of loops and functions while advancing their knowledge of code by integrating arrays, 2D arrays, functions, and text and string processing. The culmination of Unit 2 ends with students designing their own webpage from scratch using the basics of web development learned in this unit.

Standards

8.1.12.A.1	**Technology Operations and Concepts**
8.1.12.F.1	**Critical thinking, problem solving, and decision making**
8.1.12.B.2	**Creativity and Innovation**
8.2.12.A.3	**The Nature of Technology: Creativity and Innovation**
8.2.12.D.1	**Abilities for a Technological World**

Essential Questions

- When do you use a for loop instead of a while loop?
- How does Python process data from external files?
- How are ASCII values used to convert letters and symbols of the computer keyboard into binary values?
- What elements are typically included on a webpage?

Content / Skills

CONTENT
- For Loops
- Text and String Processing
- Functions
- Arrays
- 2D Arrays
- Internet

SKILLS
- Compare and contrast while and for loops.
- Describe the relationship between ASCII and Character functions.
- Research career connections with coding in dance/music, cybersecurity, entrepreneurship, social justice, web design, and sports.
- Identify errors or problems in code.
- Diagnose issues with code and revise for accuracy.
- Predict the output of the code.
- What would have to happen for this code to be correct.
- Develop a strategy for arrays as parameters.
- Generate and test searching and sorting algorithms.
- Complete a webpage.