Unit 06: Arrays

Content Area: **Mathematics**
Course(s): **AP Comp Sci A**
Time Period: **Semester 2**
Length: **5 weeks**
Status: **Published**

Standards

MA.K-12.4	Model with mathematics.
MA.K-12.5	Use appropriate tools strategically.
MA.K-12.6	Attend to precision.
TECH.K-12.1.3.c	curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.

Enduring Understanding

An array is an object that stores a collection of data of one type.

In computer science, arrays commonly store thousands of records and programmers must understand how to create arrays and work with their stored data.

Essential Questions

How can large collections of data by organized so they are easy to access or modify?

What are the benefits and hinderances of data being zero-referenced.

Knowledge and Skills

- Define and Use Arrays
- Describe how arrays and array elements are passed as parameters
- Explore how arrays and other objects can be combined to manage complex information
- Explore searching and sorting with arrays
- Learn to use multidimensional arrays
- Examine the ArrayList class

Transfer Goals

Students will be able to work with large collections of data.

Excel can recreate many of the mechanisms of array manipulation.

Resources

AP CS A Java Course — AP CSAwesome

Overview (Java SE 11 & JDK 11)

Albert.io

AP Classroom

Repl.it IDE