Unit 03: Program Statements

Content Area: **Mathematics**
Course(s): **AP Comp Sci A**
Time Period: **Semester 1**
Length: **3 weeks**
Status: **Published**

Standards

MA.K-12.1	Make sense of problems and persevere in solving them.
MA.K-12.5	Use appropriate tools strategically.
MA.K-12.7	Look for and make use of structure.
TECH.K-12.1.5.c	break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.
TECH.K-12.1.5.d	understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

Enduring Understanding

All programming languages have statements that help you define the flow of control of a program.

The flow of a program can be manipulated so that it is not always linear.

Essential Questions

When would a programmer opt to use a repetition statement?
What are the advantages of repetition statements? What could be a potential disadvantage?

Knowledge and Skills

- Discuss basic program development steps.
- Define the flow of control through a program
- Use if statements
- Define expressions that let us make complex decisions
- Use while and for statements

Transfer Goals

Students will be able to apply their knowlege of a computer program's flow of control to any high level

computer programming language.

Data often needs to be validated.

Resources

AP CS A Java Course — AP CSAwesome

Overview (Java SE 11 & JDK 11)

Albert.io

AP Classroom

Repl.it IDE