

# AP COMPUTER SCIENCE PRINCIPLES

## WEAVER ACADEMY

**COURSE DESCRIPTION:** In this course you will learn computer science concepts. In addition to programming and computer science principles, the course emphasizes problem solving, communication, collaboration, and creativity. Students are expected to complete the College Board AP requirements, which includes a portfolio and an exam.

### **ESSENTIAL CONCEPTS:**

- ✓ understand creativity, abstraction, communication, and collaboration to solve problems and create computational artifacts.
- ✓ understand and use data and information
- ✓ create and use algorithms
- ✓ understand and use programming concepts effectively
- ✓ understand the global impact of computing technology
- ✓ understand the basic premise of how the Internet works

### **ADVANCED PLACEMENT REQUIREMENTS:**

All students are expected to complete all components of the AP Exam to receive AP credit. The AP Exam currently consists of:

- a CREATE project—creating an app and brief analysis of it (less than two pages)
- an EXPLORE project—researching a computing innovation and writing a brief analysis (less than two pages)
- projects must be submitted to a digital portfolio prior to the deadline
- 2-hr written exam.

### **HOMEWORK EXPECTATIONS:**

- Any work not completed in class is expected to be completed as homework
- 20 – 45 minutes per day to complete online portfolio

### **BENEFITS OF THIS COURSE:**

- Problem solving skills
- Learn to make phone apps
- Be creative
- Computing literacy
- Collaboration
- Fun!!