

Unit 1 Graphics

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

Unit Introduction

Unit 1: Coding is an introduction to computer science using the Python coding language. Unit 1 introduces students to coding with numbers and calculations, algorithms, and repetitions and loops in order to create graphics. Included in Unit 1, are videos, interactive activities and career connections to show students how coding is used in various professions.

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

Essential Questions

- Why is it important to study the impact of computing technology?
- How can I apply coding to solve a problem?
- How are string objects used to insert usable words and phrases into programs?
- How are arithmetic expressions used to compare and modify data?
- What is necessary to compile and execute a program?

Content / Skills

CONTENT

- Beginning in Computer Science
- Number Calculations and Data
- Making Decisions
- Repetition and Loops
- Graphics

SKILLS

- Compare and contrast output and input
- Describe the relationship between data types and variables
- Research how computer science plays a role in various careers
- 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 to determine Max and Min