8 Computer Science Unit 04: Gaming

Content Area: **Technology**
Course(s):
Time Period: **December**
Length: **3 Weeks**
Status: **Published**

Unit Overview

- Computer Programming
- Design Process
- Team Building

Standards

CS.6-8.8.1.8.AP.1	Design and illustrate algorithms that solve complex problems using flowcharts and/or pseudocode.
CS.6-8.8.1.8.AP.2	Create clearly named variables that represent different data types and perform operations on their values.
CS.6-8.8.1.8.AP.3	Design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
CS.6-8.8.1.8.AP.4	Decompose problems and sub-problems into parts to facilitate the design, implementation, and review of programs.
CS.6-8.8.1.8.AP.6	Refine a solution that meets users' needs by incorporating feedback from team members and users.
CS.6-8.8.1.8.AP.8	Systematically test and refine programs using a range of test cases and users.
CS.6-8.8.1.8.AP.9	Document programs in order to make them easier to follow, test, and debug.
CS.6-8.8.1.8.CS.1	Recommend improvements to computing devices in order to improve the ways users interact with the devices.
CS.6-8.8.1.8.CS.2	Design a system that combines hardware and software components to process data.
CS.6-8.8.1.8.CS.3	Justify design decisions and explain potential system trade-offs.
CS.6-8.8.1.8.CS.4	Systematically apply troubleshooting strategies to identify and resolve hardware and software problems in computing systems.
CS.6-8.8.1.8.DA.1	Organize and transform data collected using computational tools to make it usable for a specific purpose.
CS.6-8.8.1.8.DA.5	Test, analyze, and refine computational models.
CS.6-8.8.1.8.IC.1	Compare the trade-offs associated with computing technologies that affect individual's everyday activities and career options.
CS.6-8.8.1.8.IC.2	Describe issues of bias and accessibility in the design of existing technologies.
CS.6-8.8.2.8.ITH.1	Explain how the development and use of technology influences economic, political, social, and cultural issues.
CS.6-8.8.2.8.ITH.2	Compare how technologies have influenced society over time.
CS.6-8.8.2.8.ITH.3	Evaluate the impact of sustainability on the development of a designed product or system.

| CS.6-8.8.2.8.ITH.4 | Identify technologies that have been designed to reduce the negative consequences of other technologies and explain the change in impact. |

Materials

- Chromebook
- Brainpop
- Scratch
- CS First-Game Design Module

Assessment

Formative Assessment

- Teacher Observation
- Checks for Understanding
- Exit Tickets

Summative Assessment

- Performance Tasks & Projects

Accommodations & Modifications

Special Education

- Follow IEP Plan which may contain some of the following examples…
- In class/pull out support with special ed teacher or assistant
- Preferred seating
- Directions repeated/clarified
- Extended time for completing tasks
- Vocabulary support
- Limit number of tasks

504

- In class/pull out support with special ed teacher or assistant
- Preferred seating
- Directions repeated/clarified
- Extended time for completing tasks
- Vocabulary support
- Limit number of tasks

ELL

- Translation device/dictionary

- Preferred seating
- Directions repeated/clarified
- Extended time for completing tasks
- Vocabulary support
- Limit number of tasks

At-risk of Failure

- Preferred seating
- Directions repeated/clarified
- Extended time for completing tasks
- Vocabulary support
- Limit number of tasks

Gifted & Talented

- Independent projects
- Online games
- Extension activities

Interdisciplinary Connections

21st Century Life Literacies & Key Skills

TECH.9.4.8.GCA.1	Model how to navigate cultural differences with sensitivity and respect (e.g., 1.5.8.C1a).
TECH.9.4.8.GCA.2	Demonstrate openness to diverse ideas and perspectives through active discussions to achieve a group goal.