8 Computer Science Unit 03: Text Based Coding

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

Unit Overview

- Problem Solving and Computing

- HTML, Python, MIT App Inventor
- Implement the design process while creating their own app

Standards

8.1.8.AP.1	Design and illustrate algorithms that solve complex problems using flowcharts and/or pseudocode.
8.1.8.AP.4	Decompose problems and sub-problems into parts to facilitate the design, implementation, and review of programs.
8.1.8.AP.5	Create procedures with parameters to organize code and make it easier to reuse.
8.1.8.AP.6	Refine a solution that meets users' needs by incorporating feedback from team members and users.
8.1.8.AP.8	Systematically test and refine programs using a range of test cases and users.

Materials

- Chromebook
- Brainpop

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

9.4.8.CI.3	Examine challenges that may exist in the adoption of new ideas (e.g., 2.1.8.SSH, 6.1.8.CivicsPD.2).
9.4.8.CI.4	Explore the role of creativity and innovation in career pathways and industries.
9.4.8.CT.1	Evaluate diverse solutions proposed by a variety of individuals, organizations, and/or agencies to a local or global problem, such as climate change, and use critical thinking skills to predict which one(s) are likely to be effective (e.g., MS-ETS1-2).
9.4.8.CT.2	Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option (e.g., MS-ETS1-4, 6.1.8.CivicsDP.1).
9.4.8.DC.3	Describe tradeoffs between allowing information to be public (e.g., within online games) versus keeping information private and secure.