Unit 8: Create PT prep

Content Area: **Mathematics**
Course(s): **Generic Course, AP Comp Sci A**
Time Period: **Semester 2**
Length: **3 weeks**
Status: **Published**

Standards

	Engineering design is a complex process in which creativity, content knowledge, research, and analysis are used to address local and global problems. Decisions on trade-offs involve systematic comparisons of all costs and benefits, and final steps that may involve redesigning for optimization.
8.2.12.ED.1	Use research to design and create a product or system that addresses a problem and make modifications based on input from potential consumers.
8.2.12.ED.3	Evaluate several models of the same type of product and make recommendations for a new design based on a cost benefit analysis.
8.2.12.ED.4	Design a product or system that addresses a global problem and document decisions made based on research, constraints, trade-offs, and aesthetic and ethical considerations and share this information with an appropriate audience.
	Engineering design evaluation, a process for determining how well a solution meets requirements, involves systematic comparisons between requirements, specifications, and constraints.
8.2.12.ED.5	Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics).

Essential Questions

How can we prepare ourselves for the College Board's Create Task?

Enduring Understanding

Students will design and create an app in code.org's App Lab. Students will work independently through the design and creation process using testing and reflection along the way. Students will write about their app's funtion and purpose and how they created it.

Knowledge and Skills

This short unit prepares students to complete the AP® Create Performance Task (PT). Students will have learned the skills and concepts necessary to complete the task in previous units and will even have seen components of the task itself. This unit fully explains all components of the task and walks students through

completing and submitting it.

Transfer Goals

Projects take time and should be done piece by piece, day by day and not all at once.

Grading yourself with the rubric helps visualize how you will score on the AP exam.

Resources

- College Board Directions for the Create Performance Task
- College Board Scoring Guide for the Create Peformance Task
- code.org's graphic organizers and checklists