Comp Sci Principles AP

March 25 – 27 and

March 30 – April 1

Create Performance Task

- December and January you were tasked with creating a program to submit for the Create Performance Task.
- Your first round of assignments for Online Learning will be to
  - Complete, revise, fix, or start over and complete the program
    - If you worked as part of a group you will need to talk with them about any revisions
    - Each of you should have all of the finished code from each person, and compile it in your own workspace
    - Each of you will have to do the next part separately
  - Create a video of your program running. It shouldn't be longer than 1 minute
  - Answer the questions on the Create PT Template that Code.org provides &
    - Identify the algorithm that integrates 2 or more algorithms
    - Identify the abstraction that manages the complexity of the program

Program Requirements

Your program must demonstrate a variety of capabilities and implement several different language features that, when combined, produce a result that cannot be easily accomplished without computing tools and techniques. Your program should draw upon mathematical and logical concepts, such as use of numbers, variables, mathematical expressions with arithmetic operators, logical and Boolean operators and expressions, decision statements, iteration, and/or collections.

Your program must demonstrate:

- use of several effectively integrated mathematical and logical concepts, from the language you are using;
- implementation of an algorithm that integrates two or more algorithms and integrates mathematical and/or logical concepts; and
- development and use of abstractions to manage the complexity of your program (e.g., procedures, abstractions provided by the programming language, APIs).

Groups

- If you worked with a group, remember that each of you must meet those requirements in your own part of the program

Submission Requirements – Video

Submit one video in .mp4, .wmv, .avi, or .mov format that demonstrates the running of at least one significant feature of your program. **Your video must not exceed 1 minute in length and must not exceed 30MB in size.**

Submission Requirements – Written Response

- Lesson 3 of the Create PT Task Unit
  - You'll find the Code.org Create PT Template
  - Download the MS Word version so that you can type your answers in it
  - When you finish, save it as a MS Word, and again as a PDF for submission

- This is in the MS Word Template that you will complete.
- This can also be found in the AP CSP Performance Task Directions for Students

Program Purpose and Development

2a. Provide a written response or audio narration in your video that:

- identifies the programming language;
- identifies the purpose of your program; and
- explains what the video illustrates.

(Must not exceed 150 words)

2b. Describe the incremental and iterative development process of your program, focusing on two distinct points in that process. Describe the difficulties and/or opportunities you encountered and how they were resolved or incorporated. In your description clearly indicate whether the development described was collaborative or independent. At least one of these points must refer to independent program development. *(Must not exceed 200 words)*

2c. Capture and paste a program code segment that implements an algorithm (marked with an **oval** in **section 3** below) and that is fundamental for your program to achieve its intended purpose. This code segment must be an algorithm you developed individually on your own, must include two or more algorithms, and must integrate mathematical and/or logical concepts. Describe how each algorithm within your selected algorithm functions independently, as well as in combination with others, to form a new algorithm that helps to achieve the intended purpose of the program. *(Must not exceed 200 words)*

2d. Capture and paste a program code segment that contains an abstraction you developed individually on your own (marked with a **rectangle** in **section 3** below). This abstraction must integrate mathematical and logical concepts. Explain how your abstraction helped manage the complexity of your program. *(Must not exceed 200 words)*

3. **Program Code**

   Capture and paste your entire program code in this section.

   - Mark with an **oval** the segment of program code that implements the algorithm you created for your program that integrates other algorithms and integrates mathematical and/or logical concepts.
   - Mark with a **rectangle** the segment of program code that represents an abstraction you developed.
   - Include comments or acknowledgments for program code that has been written by someone else.

AP Digital Portfolio

- https://digitalportfolio.collegeboard.org/
- Log in
- Upload your video
- Upload your PDF of your answers
- DON’T SUBMIT YET

Written Response

- Email the PDF of your written response to me by the end of Wednesday, April 1

Questions

- Discuss it on Discord
  - Join the discussion at https://discord.gg/89dUyc9
- Email me at kristen.Samuelson@lcisd.org
- Call/text me at (346) 800-4241