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| **AP CSP Python with CodeX**  **Mission 5 Assignment** | | **Name:** |
| **Getting Started** | | |
| Computers and music go great together! This project brings together coding, electronics and music. Review the mission reminders. Then go to Mission 5 and get started. | | |
| **Warm Up** Go through the slides “Analog and Digital Data.” Answer the questions below. | | |
| What is analog? Give an example. |  | |
| What is digital? Give an example. |  | |
| How do computers work with analog data? |  | |
| **Mission 5 : Micro Musician Objectives** | | |
| Complete Objective 1 Read ALL the information. Click on audio to add it to your toolbox.  Explain how the microphone works.  Explain how the speaker works.  Explain what the CODEC is and what it does. |  | |
| Complete Objective 2 Read ALL the information. Take notes in the space provided.  What type of audio file will the CodeX play? |  | |
| Complete Objective 3 Read ALL the information. Take notes in the space provided.  What is the purpose of blank lines? |  | |
| Complete Objective 4 Click on CodeX sound to add it to your toolbox.  Paste a snippet that shows all the pre-loaded audio files on CodeX. |  | |
| Complete Objective 5 Take notes in the space provided.  List two ways to increase the readability of your code.  What is a comment, and what symbol is used to start a comment?  Click on comment to add it to your toolbox. Scroll down the toolbox and read about doc strings. NOTE: a docstring can be made with three double quotes (“””) or three single quotes (‘’’).  Add a docstring to the top of your program. |  | |
| Take the quiz. How did you do? |  | |
| Complete Objective 6 Read ALL the information. Take notes in the space provided. |  | |
| **EXTENSIONS**   * Create a string variable for the audio file and use it in your code * Program several buttons to play music * Before the music plays, add one or more of these:   + Turn on the color of the pixels   + Display an image   + Fill the screen with a color | | |
| Submit the completed Music1 program to the teacher. | | |