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| **Unit 2 Remix Planning Guide** | Name: |
| **Remix Step 1: Review your programs from Mission 6, Mission 7 and Mission 8** | |
| Mission 6: Heartbeat  What does the program do? What programming concepts did you learn and use? |  |
| Mission 7: Personal Billboard  What does the program do? What programming concepts did you learn and use? |  |
| Mission 8: Answer Bot  What does the program do? What programming concepts did you learn and use? |  |
| **Remix Step 2: Remix Project Concept** | |
| Look over the remix suggestions. Discuss with a partner. Then decide what you want to do for your remix project. Describe what your remix project will do: |  |
| **Remix Step 3: Plan your code.** | |
| What variables will you use in the project? Fill in the chart.  You do not need to fill in every row, or you can add more rows. | |  |  | | --- | --- | | Variable Name | What it will be used for: | |  |  | |  |  | |  |  | |
| Your project needs at least one list.  What list or lists will you use? What will the list be called, and what are the items in the list? | |  |  | | --- | --- | | List Name | List Items | |  |  | |  |  | |
| What are some functions you can define and use? You might not know in this initial stage, but starting thinking about them.  You do not need to fill in every row, or you can add more rows. | |  |  | | --- | --- | | Function name | What it will do | |  |  | |  |  | |  |  | |
| What buttons will you use, and what will happen when pressed?  You do not have to program all the buttons. | |  |  | | --- | --- | | Button | What will happen when pressed: | | BTN\_A |  | | BTN\_B |  | | BTN\_U |  | | BTN\_D |  | | BTN\_L |  | | BTN\_R |  | |
| What text will you display or print?  Add more rows as needed. | |  |  |  | | --- | --- | --- | | Text display | Print or show? | When? | |  |  |  | |  |  |  | |  |  |  | |  |  |  | |
| What images, pixels or audio files will I use?  You do not need to fill in every row, or you can add more rows. | |  |  | | --- | --- | | Image, pixel # and color, or audio | When it will be used: | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |
| **Use a piece of paper to write an algorithm for your project.** What happens first, then next? This algorithm will help you get started. Think about:   * What libraries do you need to import? * What variables will you define at the beginning of your code? * Are there functions you can program at the beginning? * What happens in the main program? What will happen in the button presses? | |
| **Remix Step 4: Write your code** | |
| Use the sandbox  when you write the code. Start a new file and give it a descriptive name (**Remix2**). Write just a few lines at a time and test often. Start by importing your modules and defining variables and functions. Review the checklist to ensure you meet all the requirements. Include blank lines and comments for readability and documentation. | |
| **Remix Step 5: Feedback and Revise** | |
| **Peer feedback:** After you complete the program, get feedback from two (or more) people. | |
| **Peer Review #1 Name:** |  |
| Go through the checklist. Are all requirements met? If not, list any missing criteria. |  |
| What do you like about the program – be specific! |  |
| Give at least one suggestion. Begin with “what if” or “maybe you could”: |  |
| **Peer Review #2 Name:** |  |
| Go through the checklist. Are all requirements met? If not, list any missing criteria |  |
| What do you like about the program – be specific! |  |
| Give at least one suggestion. Begin with “what if” or “maybe you could”: |  |
| Review the comments. Then take time to improve or add to your project. | |
| **Post-Remix Reflection** | |
| What did you change in your project after reading the feedback? |  |
| How did collaboration affect the development of your program? |  |
| What did you learn about programming from completing this project? |  |

**Remix 2 Project Requirement Checklist:**

* Filename is descriptive
* Use at least one variable with a descriptive name
* At least one list is created
* At least one list is used in a meaningful way
* Uses at least one if statement for a button press
* Light up at least one pixel
* Display at least one image
* Display or print at least one text string
* Program includes at least one function
* Program is readable (includes comments and blank lines)
* Code follows programming conventions of indenting, punctuation and capitalization
* Code runs with no errors