| **High School Computer Science**  **AIM:** To enable students to understand and create functions that manipulate/process lists in Python  **Objective:**  To create lists in Python  To create for-each loops in Python  To create functions in Python  To combine functions and for-each loops to process lists in Python  To distinguish anatomy of a list, function, for-each loop  To communicate coding techniques to others  **Standard**:  9-12.CT.2 (Collect and evaluate data from multiple sources for use in a computational artifact.) |
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| **Vocabulary:**   * loop, iterate, assignment, element, function, parameters, input, output |
| **Resources:**   * [Google Slides](https://docs.google.com/presentation/d/1GtZebIyvoNnWi4SnjpiGfhbw7E8QTIqzEA4okWKBZ4I/edit?usp=sharing) * Repl.it - [groceries](https://replit.com/@vmiller77/groceries) * Repl.it - [ages](https://replit.com/@vmiller77/ages#main.py) * Activity - [Activity](https://docs.google.com/document/d/1cch0MHEIxpKUFEprM4UKC62AGhJoyqYWaNdT0tHSpII/edit?usp=sharing) |
| **Materials Needed:**   * Sticky Notes * Worksheet |
| **Breakdown/Timeline**:   * **Do-Now (2-3 min)**   + Hand out sticky notes and ask students to jot down notes on lists   + Share Sticky Notes * **Presentation & Live Coding Mix (20 min)**   + Lists     - Syntax     - Live Coding Lists   + For-Each Loops     - Syntax     - Live Coding   + Functions     - Syntax     - Live Coding * **Activity (Rest of Class and Cont'd)**   + Work in pairs   + Plan and verbalize ideas/approaches before filling out sheet |