

### Lesson 12: Find that Bug!

**Lesson 12 Overview:** In Lesson 12, children learn to identify errors, or “bugs,” in KIBO programming and written text, and strategies to correct these bugs.

**Powerful Ideas from Computer Science:** Debugging  
**Powerful Ideas from Literacy:** Editing and Audience Awareness, Phonological Awareness, Alphabet and Letter-Sound Correspondence

#### I. Warm Up: Debugging Programmer Says

- Play Programmer Says again with children. Choose children to hold up Programmer Says cards at the front of the class. This time, have children stand in an order KIBO would not be able to read. Have the other children guess what’s wrong and provide a possible solution.

#### II. Opening Tech Circle: Our Debugging

- Ask children what problems they have encountered so far while working with KIBO. Make an anchor chart with the list of programming issues children mention on one side, and solutions for how children would “debug” the problem on the other side.

#### III. Word Time: Error Examples

- Explain that when writing, we do a process similar to debugging called editing, but for words.
- Show Error Examples in English and ask children what is wrong with the letters and words and how they might be fixed.

#### IV. KIBO Time: Making a Bug

- Have children create buggy programs for their teammates to debug.
- Introduce the “Assistant” job card. The Assistant helps the Scanner with ensuring each block is scanned properly.

#### V. Closing Tech Circle: Sharing

- Have each team share one bug they created and debugged. and what strategies they used for debugging.

#### Vocabulary:

Editing