Coding as Another Language - KIBO
(CAL-KIBO)

DEVTECH RESEARCH GROUP

**Lesson 4:
We Are All
Programmers!**

Lesson 4 Overview: Lesson 4 teaches children how to scan KIBO's programming blocks and helps children identify the role of the programmer in programming a robot. Children also practice using the Begin and End blocks, as well as the Motion Blocks.

Powerful Ideas from Computer Science: Representation, Hardware/Software, Algorithms, Debugging
Powerful Ideas from Literacy: Tools of Communication and Language, Sequencing

I. Warm Up: Who Are These People?

- Illustrate that programmers can be of all different backgrounds (gender, race, ethnicity, age) with pictures!

II. Opening Tech Circle: Programmer Says

- This activity is played like the traditional "Simon Says" game, in which children repeat an action if Simon says to do something.
- Briefly introduce each programming instruction and what it means. Have the class stand up. Hold up one big KIBO icon at a time (use the KIBO Blocks slidedeck) and say, "Programmer says to _____". Repeat each block multiple times.

III. KIBO Time: Scanning How-to & Free Play

- To help children feel comfortable assembling and scanning programs with KIBO, first demonstrate how to scan the barcodes on KIBO's blocks.
- Then, allow children to engage in free play where they practice creating and scanning three block programs (Begin, Motion, End).

IV. Closing Tech Circle: Cleaning Up KIBO

- Make cleaning up KIBO more fun by introducing the KIBO clean-up song. Sing along together as a class!

Vocabulary:

Program

KIBO Blocks:

Begin Block

End Block

Motion Blocks