Coding as Another Language - KIBO
(CAL-KIBO)

DEV TECH RESEARCH GROUP

**Lesson 5:
A New Language**

Lesson 5 Overview: Lesson 5 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: Hardware/Software, Representation, Algorithms
Powerful Ideas from Literacy: Tools of Communication and Language, Sequencing

I. Warm Up: Robot Parts Song

- Review and have children sing the Robot Parts Song.

II. Opening Tech Circle: What Is a Program

- Remind children what a program is (a set of instructions for a robot) and explain that people who give instructions to computers or robots are called programmers.

III. Unplugged Time: 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 Programmer Says Cards) and say, "Programmer says to _____". Repeat each block multiple times.

IV. KIBO Time: Scanning & 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).

V. Closing Tech Circle: Reflection Circle

- Have children reflect on effective strategies they used to scan the barcodes.

Vocabulary:

Barcode

Program

Programmer

Programming languages

KIBO Blocks:

Begin Block

End Block

Motion Blocks