

**Lesson 1:
What Languages Do
We Know?**

Lesson 1 Overview: Lesson 1 introduces programming languages as languages used to communicate with computers and robots, and helps children recognize the KIBO programming language.

Powerful Ideas from Computer Science: Hardware/Software, Representation

Powerful Ideas from Literacy: Tools of Communication and Language, Phonological Awareness

I. Warm Up: Listing Our Languages

- Ask children what languages they know. Brainstorm as many languages as possible.

II. Opening Tech Circle: Programming Languages

- Brainstorm what different human languages have in common. Explain that computers also use languages called “programming languages.”
- Discuss the differences and similarities between human languages and computer languages.

III. KIBO Time: KIBO’s Language

- Discuss that robots are programmed by humans through a set of instructions. Explain that KIBO reads instructions on the programming blocks’ barcodes.
- Point out similarities and differences between KIBO’s language and our language(s).

IV. Word Time: Expressing Thoughts and Ideas

- Ask children to think of a language they speak at home. Have them consider what one of their favorite words in that language is, and why. What does it express? Have children reflect on this prompt in their Design Journal, and consider what they want to learn about programming languages.

V. Closing Tech Circle: Design Journal Share

- Have each child share what they wrote in their Design Journal.

Vocabulary:

Barcode

Instruction

Language

Program

Programming