

**Lesson 13:
Senses and Sounds**

Lesson 13 Overview: In Lesson 13, children will learn about the Sound Sensor and Wait for Clap Block and write a program using this sensor and block. Children will also compare human senses to robot sensors.

Powerful Ideas from Computer Science: Control Structures, Hardware/Software, Representation, Debugging

Powerful Ideas from Literacy: Literary Devices

I. Warm Up: What Do We Hear?

- Prior to class, fill several opaque jars with small items, such as pennies, marbles, and beads. Pass each jar around and have children guess what's inside by gently shaking it.

II. Opening Tech Circle: Human Senses and Robot Sensors

- Explain to children that just as humans have different senses to take in information about the world around us, robots have sensors to do the same. Tell children that today they will learn about KIBO's Sound Sensor.

III. KIBO Time: Introducing Sound Sensor and Wait for Clap & Free Play

- Show children the Wait for Clap Block, and the Sound Sensor. Create an example program together. Run the program and have children discuss what the robot is doing.
- In groups, children will explore the Sound Sensor. Children should understand that when KIBO reads the Wait for Clap, it knows to only keep going when it hears a noise. Children should also understand the similarities and differences between the Sound Sensor and humans' ears.

IV. Closing Tech Circle: Solutions Circle

- Have children share some challenges they faced with Wait for Clap and the Sound Sensor. Have other children share solutions.

Vocabulary:

Senses

Sensor

KIBO Blocks:

Wait for Clap

KIBO Module:

Sound Sensor