

Lesson 16:
Waiting Around

Lesson 16 Overview: In Lesson 16, 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
Powerful Ideas from Literacy: Literary Devices

I. Warm Up: Red Light, Green Light

- Explain that today we will be playing *Red Light, Green Light*. If space allows, have children line up at the “start line” and establish a “finish mark” in the room. Explain that when you say “green light,” the children should start walking towards the “finish mark.” And when you say “red light,” they should stop walking. If a child does not start on “green light” or does not stop on “red light,” then that child is out and should return to their seat.

II. Opening Tech Circle: If and Only If!

- Discuss the game *Red Light, Green Light*. In the game, we have to pay attention to what the teacher says. Depending on if they say “red light” or “green light,” we do different things.
- Discuss other examples of things that can only happen after we check for something else.

III. KIBO Time: What Is a Sensor?, Introducing Sound Sensor and Wait for Clap & Free Play

- Discuss reasons why people need to use each of the five senses. Explain to children that just as humans have different senses to take in information from our environment, robots have sensors to do the same.
- 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.

KIBO Blocks:

Wait for Clap