

Lesson 6:
Order Matters

Lesson 6 Overview: In Lesson 6, children will learn what an algorithm is, including examples of algorithms in everyday life, and understand the importance of order in algorithms.

Powerful Ideas from Computer Science: Algorithms, Hardware/Software, Representation
Powerful Ideas from Literacy: Sequencing, Editing and Audience Awareness

I. Warm Up: Program the Teacher

- The teacher will now be the computer and children will get to program them! Children will be responsible for verbally directing their teacher to special destinations in the classroom (e.g., to a bookcase or a closet) or doing a task (e.g., making a sandwich). The instructions the children give to the teacher must be specific.

II. Opening Tech Circle: Human and Computer Language

- Explain that algorithms are a sequence of steps in the right order. Go over an example with the children: Washing your hands. If a human were telling another human to wash their hands, they'd know what to do! Now pretend a computer has hands! If a human were telling a computer to wash their hands, you'd need to tell them each step in the right order (e.g., walk to sink, turn on water, etc.).

III. KIBO Time: Order Matters

- Discuss how the Begin and End blocks can only be at the start and end of a program.
- Show children two programs and ask them what they will do differently. Remind children about the importance of order in programming,

IV. Word Time: Written Algorithms

- In their Design Journal, have children write or draw the steps for brushing their teeth.

V. Closing Tech Circle: Sharing Circle

- Have children share the instructions they created for brushing their teeth.

Vocabulary:

Algorithm

Order