

## Explore Sequencing

# Play the Robot Game



Intro  
Activity

In this activity, the teacher plays a robot and children teach the robot how to put on a jacket. Children need to **think about** what instructions to give the robot, and then **step it out!**

**Group Size** Small Group  
**Time** 15–20 minutes

### Computational Thinking Learning Goal

This activity introduces the concept of sequencing:

1. **Think About It.** Think about the steps you need to do.
2. **Step It Out.** Do the steps in order.

### Math Concepts

- Understanding and using ordinals
- Creating a Sequence

### Materials

- Sequencing Poster
- Jacket (that fits teacher)
- Robot Mask
- String, ribbon, or pipe cleaners to hold the mask in place

### Preparation

Make the mask:

- Cut out the mask and eye openings
- Use a pencil to punch a hole in the circles on each side of the mask
- Tie a piece of string in each hole so you can wear the mask
- Tape the Sequencing Poster to the wall

## Introduce the Activity (5 minutes)

1. Tell children:

- *Today you're going to teach a robot how to put on a jacket.*
- *I'll pretend to be the robot while you tell me what to do.*

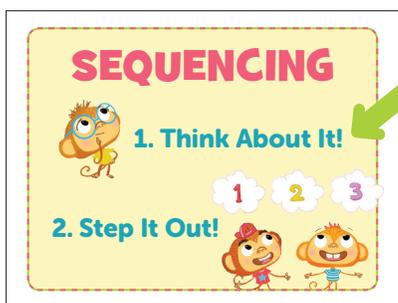
2. Point to the Sequencing Poster and say:

- *When you teach the robot, you practice **sequencing**. Say it with me: SEQUENCING!*

## Think About It! (5 minutes)

1. Point to the first step on the Sequencing Poster and say:

- *The first step of **sequencing** is **think about it!***
- *Let's say it together: **Think about it! Think about it!***



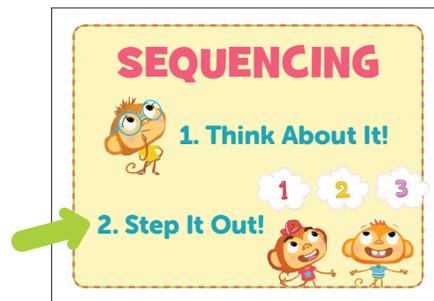
2. Help children think through the steps before they give the robot instructions. Place the jacket on a table or chair and say:

- *The robot has never put a jacket on before, so you have to give the robot very clear, step-by-step instructions. Let's **think about it** first.*
- *What are the steps you need to do to put on a jacket? (You need to put an arm in each sleeve, pull on the jacket, zip/button the front, etc.)*

## Step It Out! (5 minutes)

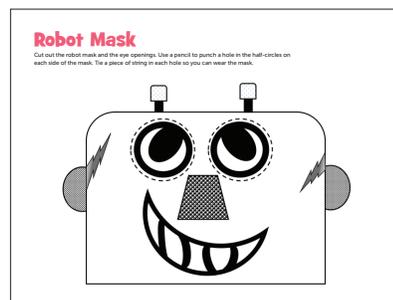
1. Point to the second step on the Sequencing Poster and explain:

- *The second step in **sequencing** is **step it out!***
- *Let's say it together: **Step it out!**  
**Step it out!***



2. Put on the robot mask and say in a robotic voice:

- *I am a robot. I can only do one step at a time.*
- **Step it out!** *Tell me the steps I must do to put on the jacket. (Children might say something like: Pick up the jacket, put it on, button/zip it.)*



3. Have children take turns giving instructions. Follow their steps exactly as they say them. If their directions are not clear or specific enough, make mistakes to help them realize the robot needs better instructions.

4. Reflect on the activity. Ask:

- *How did you decide what to tell the robot first, second, third?*
- *Did the robot make any mistakes? Why do you think that happened?*
- *What did you learn about how to give directions to the robot?*

### TIP: Acting Like a Robot

Think of fun and silly ways to follow children's steps exactly. For example:

- If children say: *Pick up the jacket*, pick it up upside down.
- If they say: *Put the jacket on*, put the jacket on your head or with the buttons on your back.
- If they forget to tell you to put one arm in each sleeve, try putting both arms in the same sleeve and say: *I need more steps. My arms do not fit.*
- If they combine multiple steps, act like you are malfunctioning, and say in your robot voice: *I do not understand. Too many steps! Tell me what to do next.*

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## Wrap It Up (2 minutes)

End the activity by saying:

- Today we practiced **sequencing**. The first step of sequencing is **think about it**. The second step of sequencing is **step it out**.
- Say it with me: **Think about it! Thinks about it! Step it out! Step it out!**

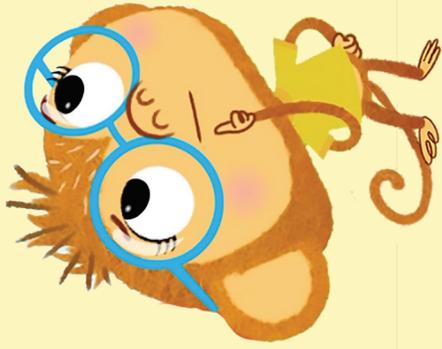
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## Extend the Play

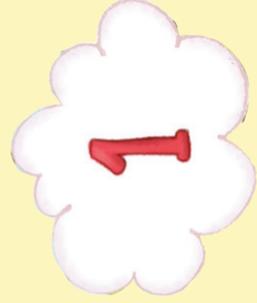
Continue practicing sequencing. Have children work in pairs—each child can have a turn at being the robot! Suggest children teach the robot different tasks such as putting on a shoe or drawing a picture. Remind children to **think about** each step carefully before they **step it out**.



# SEQUENCING



1. Think About It!



2. Step It Out!



# Robot Mask

Cut out the robot mask and the eye openings. Use a pencil to punch a hole in the half-circles on each side of the mask. Tie a piece of string in each hole so you can wear the mask.

