

Be a Human Computer

SD-B036 / AGES 4+ WITH SUPPORT

Give a partner a plan for three paper shapes, then discover what happens when the instructions change.

YOU NEED: A pencil, three large paper shapes (circle, square, triangle), and this sheet or plain paper.

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| MEET | Point to the three boxes. Agree that box 1 is on the left. Which shape will you move first? |
| WATCH | An adult puts the circle in box 1, then moves it to box 3. Point to where it finishes. |
| TRY | Reset. Put the circle in box 3, then move it to box 1. Predict first; follow each instruction. |
| CELEBRATE | Invent a two-step plan for the square. Can your partner predict its final box? |

MOVE A SHAPE. SAY WHAT CHANGED.

BOX 1

BOX 2

BOX 3

MY TWO-STEP PLAN

TELL THE STORY: Which instruction tells us where the shape finishes?

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SD-B036 / GROWN-UP GUIDE / NEW

A little help beside the learner. Read this page first; keep the answers here.

LEARNING GOAL

Follow a precise two-step plan and explain how changing its order can change the result.

BEFORE YOU BEGIN

No coding or reading needed. Point to a shape and follow a direction with adult support.

WHY IT MATTERS

A program is a plan expressed as instructions. Clear words and a clear order help a machine do what we intend.

LOOK FOR THIS REASONING

The original circle finishes in box 3; the reversed plan finishes in box 1. The second instruction determines its final position. Some instructions can be swapped without changing a result: placing two different shapes in two different empty boxes is one example.

IF THEY GET STUCK

“The same two instructions always give the same result.” Pause after each move and point to where the circle is now.

MAKE IT GENTLER

Use one shape and two boxes. The adult reads; the learner points and moves. Say “now” after every move.

ADD A LITTLE STRETCH

Find two instructions you can swap without changing the final arrangement. Explain why these differ from moving the same shape twice.

A USEFUL STOPPING POINT

On a fresh two-step plan, the learner predicts the final box and explains that the later move changes the earlier position.

TAKE THE IDEA INTO THE COMPUTER LAB

You changed the order of a plan. In the lab, watch what happens when a computer adds and doubles in a different order.

Open the lab: thesagedad.com/computer-lab/#lesson/youre-the-computer