Sorting Networks

By European Parents' Association - EPA

Objective

Demonstrate sorting algorithms and decision-making without using a computer

Duration

30 – 45 min

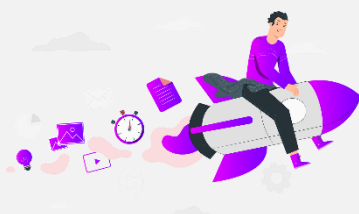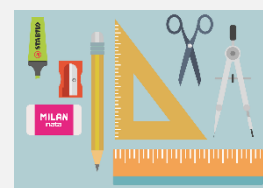# Target group

Children 5+ yrs

Experience

Beginner

Materials

Tape or chalk, objects or cards with different sizes or numbers, designated open space.

Setup

Create a sorting network on the floor with interconnected paths and comparison points. Prepare objects or cards with a clear property for comparison.

Description

o   Introduction: Introduce sorting as putting things in order and explain the sorting network as a way to understand how computers sort.
o   Explain the Sorting Network: Describe the network as rules for comparing things and explain how objects are compared at each point and follow paths based on the comparison. Walk through examples.
o   Activity: Human Sorting: Participants act as objects or cards and are guided through the network, comparing themselves at each point and following the designated paths.

Discussion and Reflection

Discuss if sorting was successful, how the network helped, what happens if comparison order changes, and how this is similar to computer sorting.

Extension

Introduce different sorting algorithms and their representation as networks, or have participants design their own simple networks.

CodeWeek
Build your digital future

Legal Disclaimer

The European Commission's support to produce this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Funded by
the European Union