

BETI

Odd and Even Sorter

Scenario title/name of the game: Odd and Even Sorter

Children’s age (primary school students):6-7 years old

The time needed:30-35 minutes

Content/Subject: Odd and even numbers

Aim of the activity:to help children understand the difference between odd and even numbers and to reinforce their number recognition and counting skills.

# Introduction

The Odd and Even Sorter game is a fun and interactive way to teach children about odd and even numbers. By using a programmable robot, children can sort numbers into two categories: odd and even. This game is designed for children aged 6-7 years old and takes approximately 15-20 minutes to play.

Through this game, children can develop their number recognition and counting skills while also learning the difference between odd and even numbers. By using a robot to sort the numbers, children can also develop basic programming and robotics skills, which can help build their confidence and interest in STEM subjects.

The game involves using a set of number cards with both odd and even numbers ranging from 1-20, as well as two sorting bins or containers labeled "odd" and "even". Children take turns programming the robot to move to a number card and then sort it into the appropriate bin based on whether it is odd or even. The game is engaging and interactive, making it a great tool for teaching children about numbers and basic programming skills.

## Resources:

A programmable robot

A set of number cards: both odd and even numbers, ranging from 1-20

Two sorting bins or containers: labeled "odd" and "even"

# A detailed description of the scenario

The teacher gathers the children around a table and explains that they will be playing a game to help them understand odd and even numbers. They introduce the materials, including a programmable robot, number cards with odd and even numbers ranging from 1-20, and two sorting bins or containers labeled "odd" and "even".

The teacher explains that even numbers are divisible by 2 with no remainder, while odd numbers are not. They demonstrate this with a few examples, such as showing that 2, 4, 6, and 8 are even because they can be divided into 2 equal parts, while 3, 5, 7, and 9 are odd because they cannot.

The teacher then shows the children how to program the robot to move to a number card and then sort it into the appropriate bin based on whether it is odd or even. They demonstrate this with a few examples and give the children a chance to practice.

Once the children understand the game, they take turns programming the robot to move to a number card and sort it into the correct bin. As they play, the teacher reinforces the concept of odd and even numbers and helps the children if they get stuck.

# Steps

1. Introduce the concept of odd and even numbers to the children. Explain that odd numbers are numbers that cannot be divided evenly by 2, while even numbers are numbers that can be divided evenly by 2.
2. Show the children the two sorting bins and explain that they will use the robot to sort the numbers into two categories: odd and even.
3. Distribute the number cards to the children, making sure that each child has a mix of odd and even numbers.
4. Have the children take turns programming the robot to move to a number card and then sort it into the appropriate bin based on whether it is odd or even.
5. Encourage the children to count the numbers and identify whether they are odd or even before programming the robot to move to the correct bin.
6. After all the numbers have been sorted, have the children count how many odd and even numbers they have in each bin.
7. Discuss the results with the children and reinforce the concept of odd and even numbers. You could ask questions such as "Why are these numbers odd?" or "What makes these numbers even?".
8. Play again if time allows or move on to another game or activity.

# Tips and tricks for the teacher

Use visual aids: Consider using visual aids such as diagrams or pictures to help illustrate the concept of odd and even numbers.

Start with simple numbers: Begin with simple numbers and gradually increase the difficulty as children become more comfortable with the concept.

Reinforce number recognition: Encourage children to practice recognizing numbers before sorting them. This will help reinforce their number recognition skills.

Vary the sorting bins: Consider using different sorting bins or containers to keep the game interesting and engaging.

Provide feedback: Give children feedback on their sorting skills and encourage them to try again if they make a mistake.

# VARIANTS OF THE SCENARIO/THE GAME

Cards might be put on the playmat, with numbers face-down. Children then would need to program the robot to reach the card they want and just then open the card and say if it is an even or odd number and put it in a bin or container.