

**TITLE: Logic games**

## LEARNING SCENARIO

<b>School:</b>	<b>Duration (minutes):</b>	90
<b>Teacher:</b>	<b>Students age:</b>	9

**Essential Idea:****We create groups according to certain rules.****Topics:**

- Pupils gain experience by working in a secure group and by creating things together.
- Pupils are guided to identify the most appropriate ways of learning and to develop their learning and innovation techniques.

**Aims:**

- Pupils arrange the data in a useful way.
- Pupils become familiar with physical or virtual robots.

**Outcomes:**

- Pupils determine the common characteristics of the data group.
- Pupils sort data into groups.
- Pupils order data according to criteria that allow their efficient use.

**Work forms:**

- individual work
- work in pairs

**Methods:**

- presentation
- discussion
- graphic work

ARTICULATION

Course of action (duration, minutes)

INTRODUCTION

The teacher explains and starts a discussion:

We sort and categorize data for the sake of clarity and faster searching.

When we use substantial amounts of data, the data can be grouped.

We group the data into smaller groups according to a given rule. For example, all third graders are grouped into 3.a, 3.b, 3.c and 3.d classes.

Clothing in the store is divided into three groups: children's, women's and men's clothing.

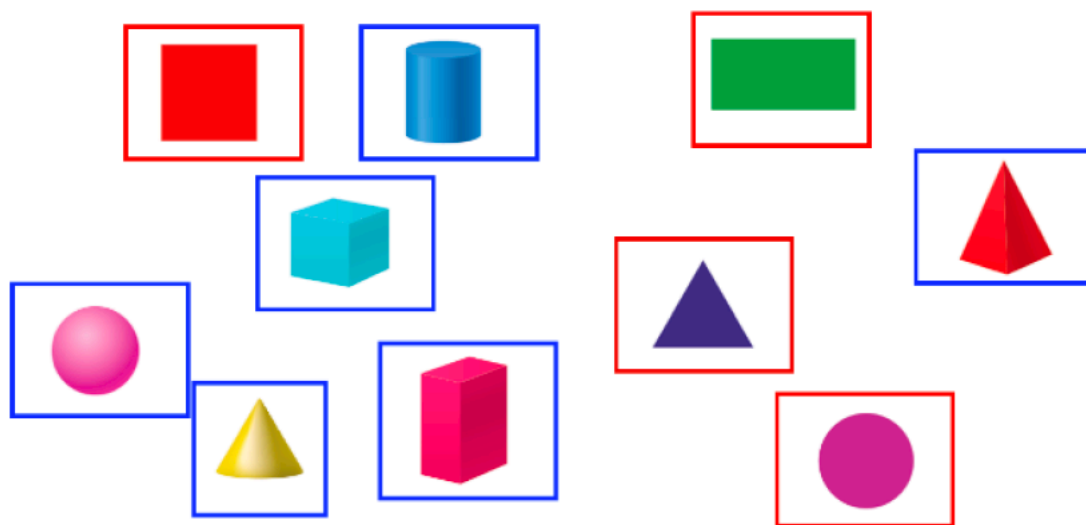
Children's clothing is divided into two smaller groups: clothing for boys and clothing for girls.

Announcement of the goal of the lesson:

Today we will solve puzzles in the computer science class.

MAIN PART

**1. Group the shapes from the picture correctly.** Circle all shapes that belong to the same group using the same color.

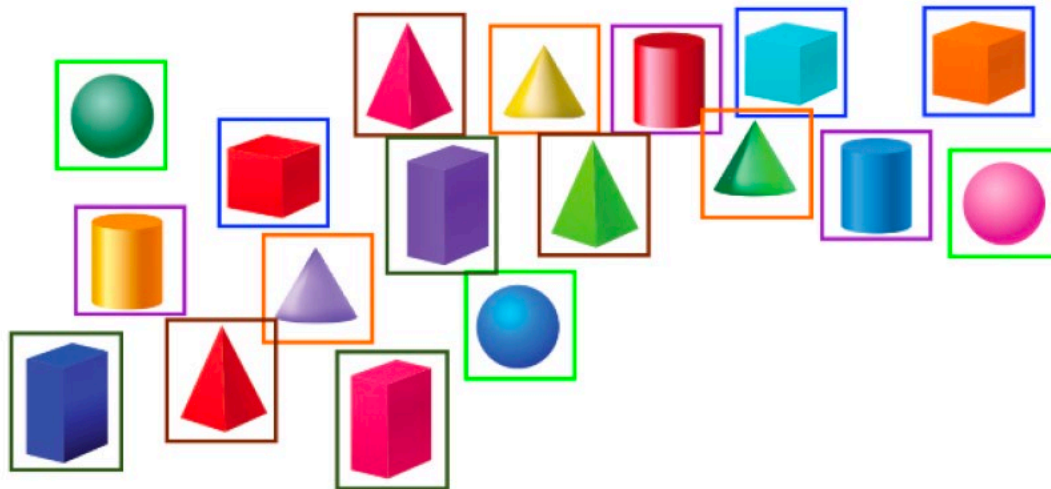


**2. Look carefully at the given terms:**

computer, program, classroom, teacher, teach, homework, exercise, book, teach, school, read, tablet, phone, write, bike, ride, scooter, table, chair

Devise a rule according to which you will group the given terms. For each group, draw a shape as desired and write all the terms that belong to the same group inside it. Name the group. – *personal solution*

**3. Group the geometric solids in the picture.** Circle all solids that belong to the same group using the same color. Explain the rule by which you have grouped the geometric solids.



**4. Write ten items that you see in the classroom and the schoolyard.**

Devise a rule according to which you will group the written items. For each group, draw a shape as desired and write all the terms that belong to the same group inside it. Name the groups. – *personal solution*

**5. Build a robot (physical or virtual robot).**

What parts does your robot consist of? Write names of the parts.

Devise a rule according to which you will group the parts of the robot.

Organise the robot parts into groups. – *personal solution*

Pupils solve tasks and present their solutions and work.

Pupils and the teacher discuss and evaluate the presented solutions and works.

### CONCLUSION

We create groups according to certain rules.

The teacher controls the students' solutions to the tasks.

#### **Methods**

presentation  
discussion  
work on the text  
graphic work  
interactive exercise /simulation on the computer

#### **Work forms**

individual work  
work in pairs  
group work  
frontal work

#### **Material:**

- textbook
- material for making a robot

#### **Literature**

- <https://www.e-sfera.hr/prelistaj-udzbenik/e6e81764-edaf-45bb-aa9f-72fe641b4565>

### PERSONAL OBSERVATIONS, COMMENTS AND NOTES