

Junior architects design playhouse

COMU

Scenario title/name of the game: Junior architects design playhouse

Children’s age (primary school students):8 years old

Time needed:15 minutes

Content/Subject: Geometry (triangle, square, rectangle, circle, pentagon, hexagon)

Aim of the activity:Describe and compare properties of two-dimensional shapes.

# Introduction

This activity aims to:

* develop social-emotional aspects of children in terms of providing empathy with other children who have been harmed in a natural disaster in a place and motivation to do something for them,
* understand comparing two different two-dimensional shapes and enabling them to choose and use appropriate
* develop their creative thinking skills as they will realize their own designs.

The age-appropriate story of the event will lead them to a scenario where they will use their knowledge of two-dimensional shapes in geometry to design a playhouse for earthquake-affected peers elsewhere!

## Resources:

1. Colorized scotch to make the table on the floor

2. Two Robots and direction arrows

3. Triangle, square, rectangle, circle, pentagon, hexagon (colors: yellow, blue, red, green, pink; textures: solid, striped, dotted, etc.) in different colors, sizes and textures.

# A detailed description of the scenario

On February 06, 2023, a major earthquake occurred in Turkey that affected 10 provinces. As a result of this earthquake, buildings, schools, etc., where many people live and many places damaged. Many children your age have also been affected. One of these children, Hazal, lives in a tent with her family. Hazal sees a huge playhouse in her dream, she sees that she is playing in this playhouse with her friends living in the other tent. When he wakes up in the morning, he tells his mother about the playhouse he saw in his dream. Would you like to think and design the playhouse that Hazal saw in her dream? If you were in Hazal's place, what kind of playhouse would you design, what colors and shapes would it be? Would you like to be the architects of this design?

# Steps

1. 2 different teams of 2-3 people are formed by the teacher, taking into account the number of children who will carry out the activity.

2. The scenario is shared with the students by the teacher.

3. Students share their feelings and thoughts about the scenario.

4. The teacher places the shapes in the appropriate places on the map. While placing the shapes, he asks the students to say the properties of the shape in his hand. A shape is not placed on the squares he chooses on the map, two different shapes are placed. Because the purpose is to choose one of these two shapes and to compare the two shapes while choosing.

5. The teams are asked to decide on the shapes for the playhouse they will design for Hazal and her friends, and the colors and textures of these shapes (shapes: triangle, square, rectangle, circle, pentagon, hexagon (colors: yellow, blue, red, green, pink; textures: plain, striped, dotted, etc.)

6. Students are asked to draw up a roadmap of the shapes they will collect for their playhouse design.

7. Each team programs their own Architect Robot (or put the arrows in the correct order) and hits start!

8. The teams collect the shapes of the playhouse you designed with your friends in order and build a playhouse for Hazal as little architects.

# Tips and tricks for the teacher

1. Let's pay attention to the heterogeneity of teams to be formed of 2-3 people.

2. Ask each team to name their architect robot in a collaborative learning framework.

3. Give the rules and information of the event at the beginning.

4. Have children express their feelings and thoughts about the scenario aloud, and encourage them in this regard.

5. By changing the starting points of the two robots, you can avoid them overlapping at the same point.

6. Prevent children from being afraid of making mistakes in coding robots, do not allow negative criticism of their friends. Encourage them when they make mistakes and make them feel that it is part of the game.

7. Insist on the student choosing one of two different geometric shapes in a box on the map. Ask them to compare two shapes out loud in terms of their properties (number of sides, angles, etc.).

8. The playhouses designed by the students are “more beautiful, this is better, etc.” Do not comment, do not allow it to be made. Because one of the important skills here is creative thinking.

**Scenario implementation and other resources:**

Maps, arrows, other materials especially created for this scenario.

**Variants of the scenario/the game**:

If the competition between the teams is too much in the activity, the activity can also be carried out as a single group, with the children choosing and collecting the shapes in turn.