KIDS BUILD THEIR KNOWLEDGE AND SKILLS ABOUT THE WORLD THROUGH STEAM

Topic: **A maze**

Resources: For each team: a large green baseplate; maze instruction card and corresponding construction material; one 12x6 plate, two 8x4 plates, one 6x4 plate; one ball;
- For each child: activity card J-3-1; pencils: black, yellow and green.

J-3

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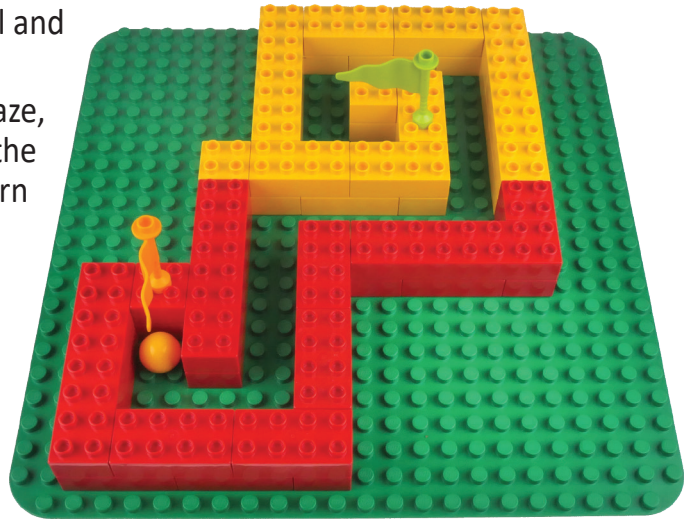
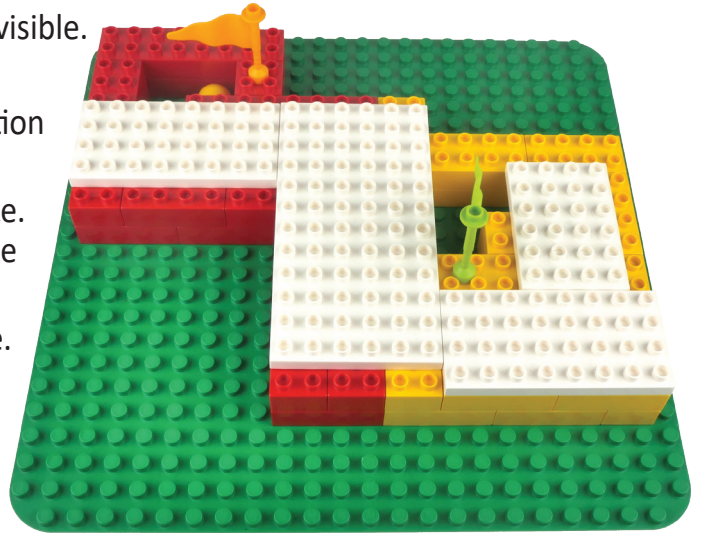
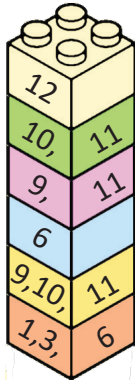
Activities:



1. The teacher gives each team a maze instruction card and the associated construction material and asks them to build the maze model. The children complete this work.
2. The teacher explains the rules of the game. One child places the ball at the beginning of the maze, marked with a green flag. By tilting the plate in different directions, the ball is moved through the maze to its end, marked with a yellow flag. The other child must then pick up the plate and return the ball through the maze to the start.
3. The teacher gives each team a ball and the children complete the exercise.
4. The teacher gives each child a set of pencils and activity card J-3-1.
5. The teacher tells everyone to code the path of the ball from the starting position to the final position. Coding is done by drawing arrows that show in which direction the plate should be tilted. The teacher explains that each child is to encode the path the ball took when playing with the maze. The start and end positions should also be marked in the code by drawing flags in the corresponding colors.
6. The children carry this out.
7. The teacher tells the teams to cover the maze with the plates so that its path is not visible.
8. The children carry this out.
9. The teacher tells one child to take the other's code, place the ball at the starting position and move it 'through' the maze, by following the code.
10. The children carry this out and tell the teacher if the ball reached the end of the maze. Where errors are found in the code, any corrections are made with the help of the teacher.
11. The other child on the team then repeats the process, following their partner's code.
12. The teacher and children review the performance of the exercise. They conclude that movement of an object along a given route can be described using a code in which direction of movement is indicated by arrows. If an error is made in coding or in reading the code, you will not reach the end point of the route.