

Coding for Good Badges - Game Design 1

Maze Game Diagram & Coding Blocks

Game Objective: Brownies use coding blocks to learn how games are developed for Step Two of the Digital Game Design badge. They'll practice by moving a character (doll, stuffed animal, etc.) through a 3D maze, picking up objects along the way. Their goal is to navigate their character around the city to pick up trash and bring it to a recycling bin to recycle.

Instructions: Before the meeting, set up a 3D maze game:

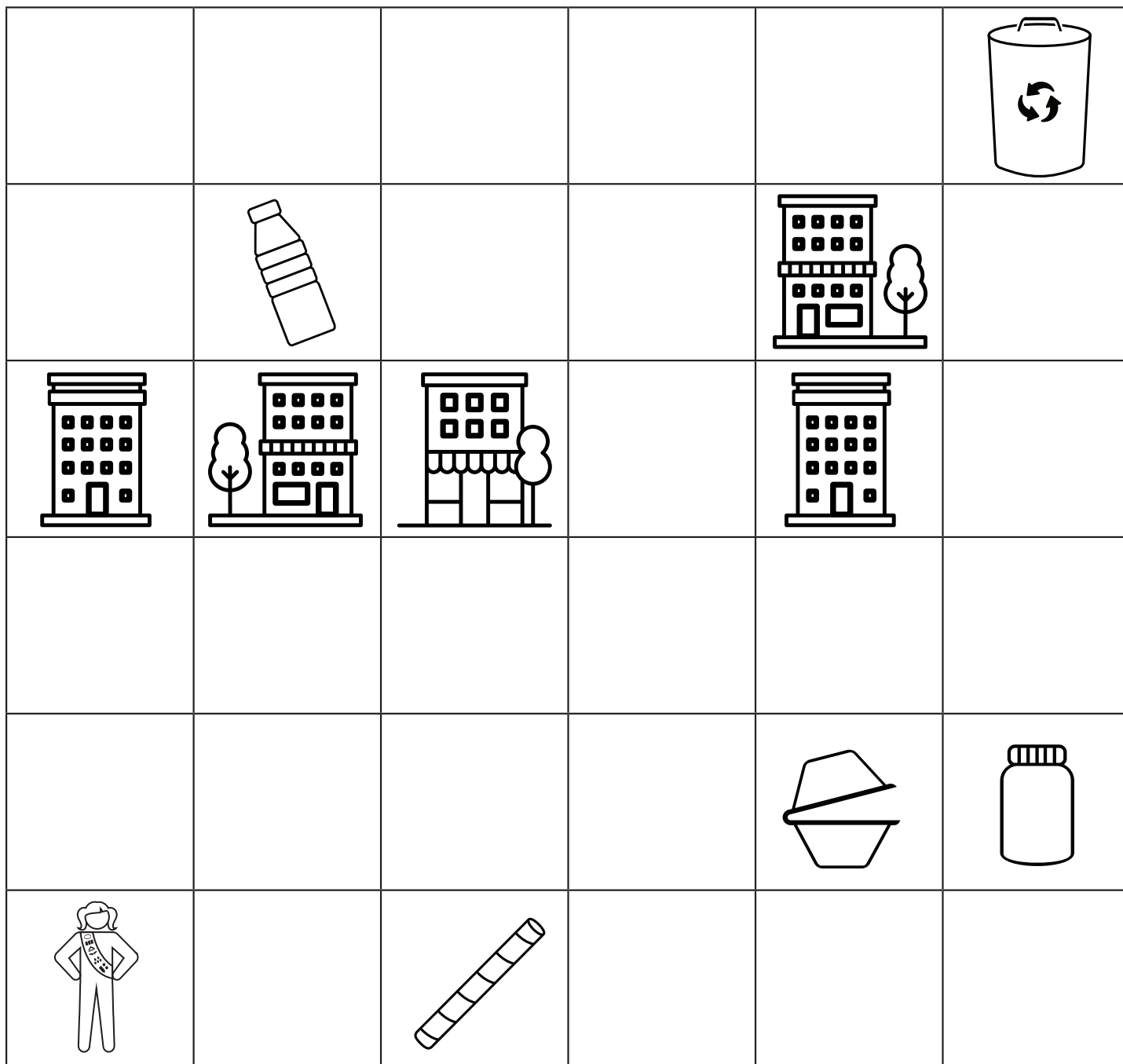
1. Draw the commands on the board or chart paper.
2. Print and cut out the obstacle coding blocks (buildings), object coding blocks (trash), and goal coding block (recycling bin).
3. Create a grid (7x7 or larger) on the floor using blank sheets of paper (8.5" x 11"). Alternatively, create the grid using masking tape - make sure the boxes are big enough for the character (doll, stuffed animal, etc.) to sit in.
4. Place the obstacle coding blocks (buildings), the object coding blocks (trash), the character (doll, stuffed animal, etc.), and the goal coding block (recycling bin) in the grid according to the sample below.

If you're working with a large number of girls, you may want to work in small groups of no more than 6. Each group will need their own 3D maze game grid. It's highly recommended for each group to be led by an adult Volunteer.

Optional: Bring in recyclable materials (i.e. newspapers, cans, glass bottles, etc.), 4-6 for each grid, and a recycle bin to use in your grid instead of the coding blocks.

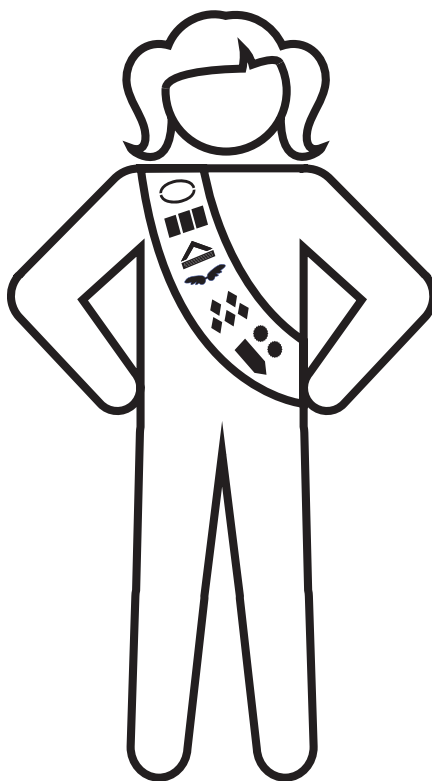
Commands:

- ➡ **Turn Right:** Turn to the right, do not take a step, stay in your square.
- ⬅ **Turn Left:** Turn to the left, do not take a step, stay in your square.
- ↻ **Jump:** Jump over an obstacle and land in the next square. Jumping is not allowed if it takes you off the grid.
- ⬆ **Move Forward:** Take one step forward. Characters cannot step off the grid.
- 📦 **Pick Up:** When you reach an object, pick it up.

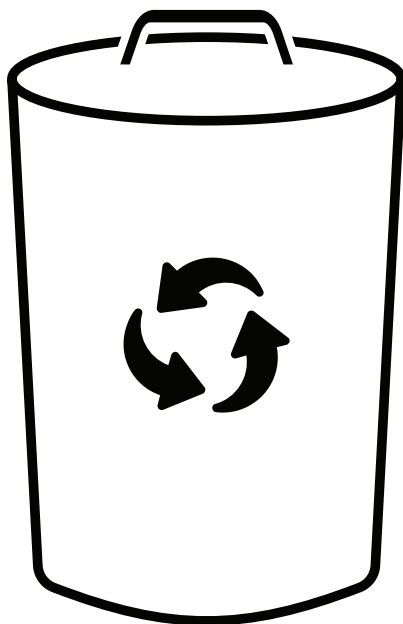


Note: To increase difficulty, expand the grid to 8x8 or larger to create a larger canvas for game design!

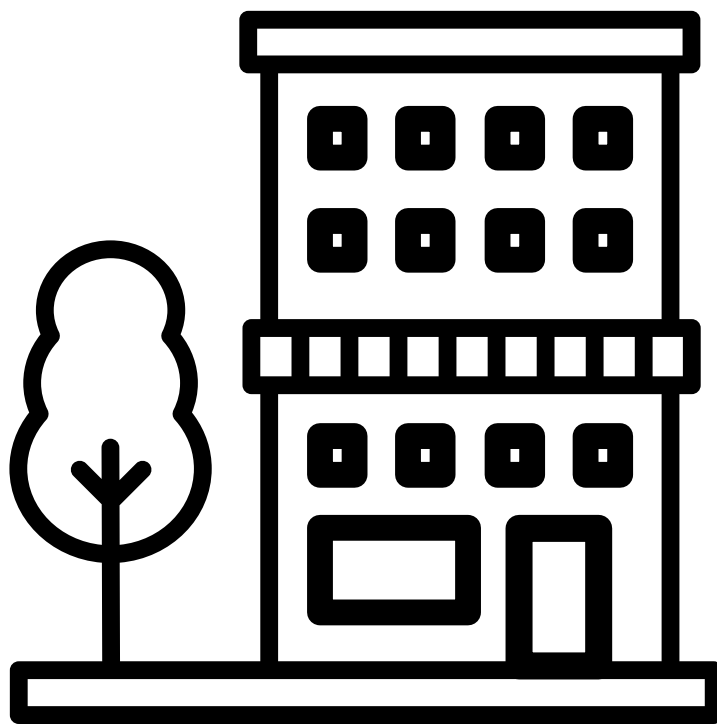
Character: Girl



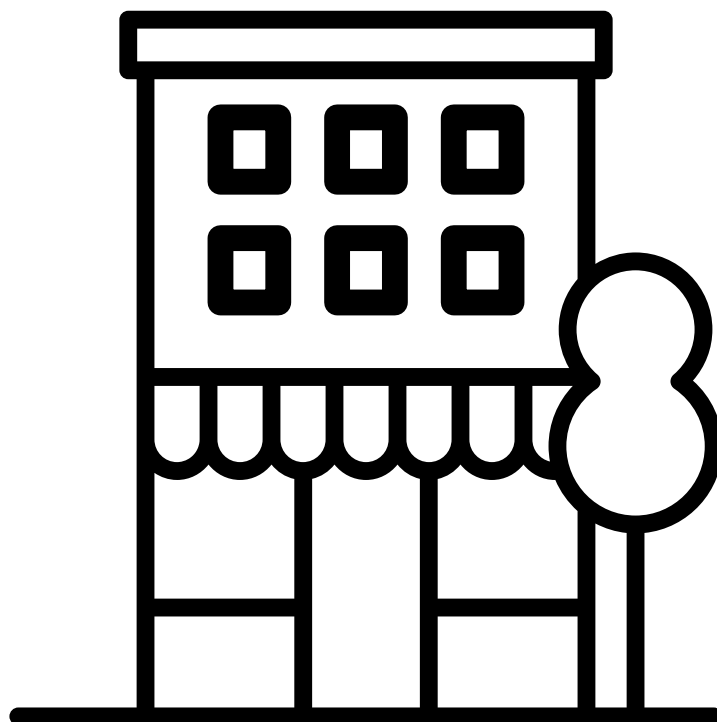
Goal: Recycle



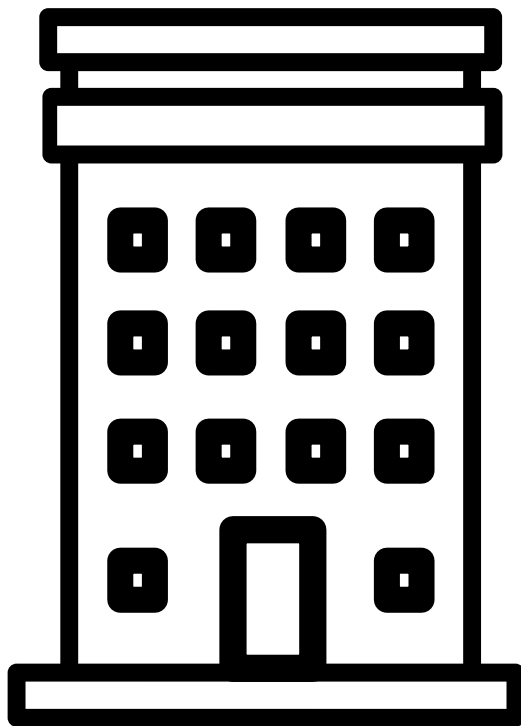
Obstacle: Buildings



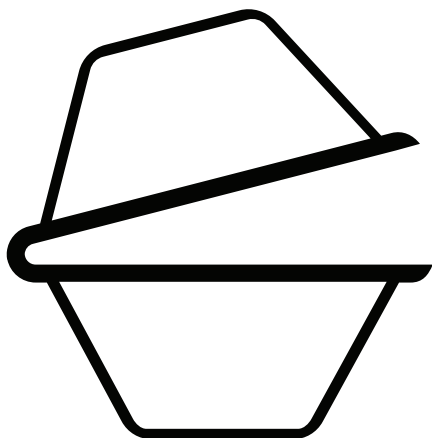
Obstacle: Buildings



Obstacle: Buildings

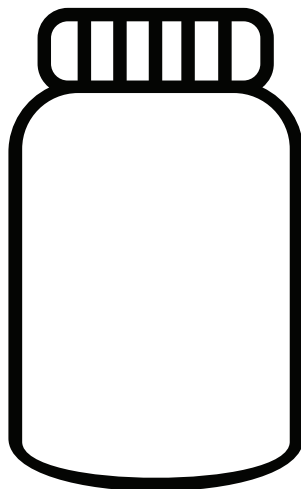


Object: Trash

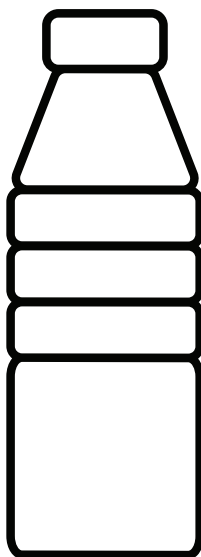




Object: Trash



Object: Trash





Object: Trash

