

# Build a game with CoBlocks

## Lesson plan

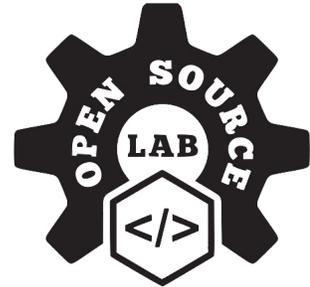
*Created by Open Source Lab*

**Education level:** From middle school

**Subject:** STEAM, mathematics, physics, computer science, coding, languages

**Format:** Individual or in groups

**Duration:** Approx. 4 hours



### Introduction and lesson objectives:

This lesson will teach students how to use variables and make clouds move on the x,y,z cartesian plane that's in CoSpaces Edu.

This lesson works as an extension from previous coding lessons. A basic knowledge of lists, variables and uploading pictures would be beneficial before starting this lesson but isn't required if several days are given for this lesson.

### Learning goals and student benefits:

- Practice prototyping and testing
- Practice computational thinking
- Learn coding skills
- Learn movement skills in 3D
- Learn 3D creation skills
- Foster creativity

### **Activity preparation:**

1. Teachers should go through the tutorials beforehand to ensure that they know how to help students if they run into an issue. Students can also try and help each other out.
2. Set a few boundaries to add some structure and challenge your students' creativity. For example, let students create whatever they wish, but in relation to a particular topic that you define as a general direction.
3. Test logical or critical thinking by providing a specific theme based on which your students will have to find a creative idea.

### **Extension idea:**

Once your students know how to create lists, ask them to go back to their ideate phase and think about how they could use this in their mazes.

Perhaps they could shoot fireworks up when the player finishes a challenge?  
Or fire out arrows from a wall when they step on the wrong color?

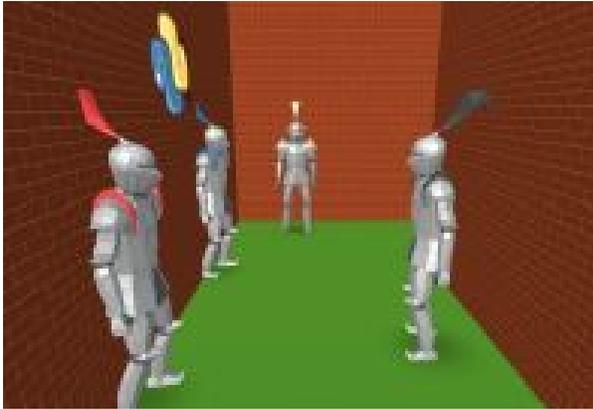
### **Assessment and evaluation suggestions:**

- Have your students managed to build a game in CoSpaces Edu?
- Is the player able to go through the game, understand the goal and complete it?
- Have your students managed to code with CoBlocks?

# Creation guide

The video tutorial below will guide you through the creation process.

We recommend using headphones while watching these videos.



A character is moving from one room into another. Each room should hold a mystery, but the mysteries in each room should somehow connect.

Using the video tutorial, learn how to build moving clouds in a mini game. Then, learn how to make multiple mice move across the floor when an event is triggered in the game.

Video 1: [youtu.be/DfGaLBDQ200](https://youtu.be/DfGaLBDQ200)



In this next step, you'll learn how to use an object's collision to trigger an event, in combination with lists.

Video 2: [youtu.be/k5dviHmXkM8](https://youtu.be/k5dviHmXkM8)

# Example CoSpace



Build a game

[edu.cospaces.io/KUA-HLQ](https://edu.cospaces.io/KUA-HLQ)