Games lesson plan

CoSpaces Edu level: Adaptable
Education level: Adaptable to any
Subjects: Adaptable to any
Skills developed: 3D creation, coding, computational thinking, collaboration

Introduction:
While learning to code, your students can create their very own game and play it with their classmates! There are many different types of games your students can create. Games can also be created specifically for VR for an immersive gaming experience!

- **Adventure games** - Your students create adventure games in which the player experiences a story and has to go through a series of actions to win.
- **Parkours** - Your students program their own parkours or 3D platform games in which the player has to move to get from a start position to a finish line or goal.
- **Scavenger or treasure hunts** - Your students create a virtual scavenger hunt in which the player has to find hidden objects inside a world that they create.
- **Quizzes** - Your students create and code their own quiz game on a topic that was studied in class and get to demonstrate their learning in a fun way.
- **Mazes** - Your students create a virtual maze in which the player has to go through a series of questions or puzzles in order to exit the maze.
- **Escape rooms** - Your students create and code their own virtual escape room!

Student benefits:
- Learn basic 3D creation skills
- Practice basic coding and computational thinking
- Demonstrate student learnings
- Collaborate with classmates

Activity examples:
1. Discuss with your students the components of a game and how a game is usually designed. What makes a game fun? How does the player win, or lose?
2. Define the scope of the game that your students will create with them.
3. Optionally, assign them a specific topic to incorporate into the game content.
4. Let them code their games and then play it as well as their classmates’ games.
Creation guide

Think about what you want your game to be like. What will the player have to do? How does the player win or lose? When is the game over? Write down or draw your ideas.

Plan the logic and design of your game:

- Define the goal of your game. How do you win?
- Plan how your game will start and end.
- Think about some sets of rules for your game.
- Plan some obstacles or other challenges.
- Define what will make your game interactive.

Think about other elements that you might want to include. Are points counted throughout the game? Who are the characters in your game? Does your game have a specific theme or story?

Ready to create your own game?

You can start by building the environment of your game. Click the **Environment icon** and select a 3D environment.

With some environments, you can also adjust the mood of your scene. Click **Mood** to define this.
Add all the elements of your game. Drag any objects you might need in your game from the Library.

You can adjust the size, position and color of most of the objects.

Are you missing something for your game? You can add anything you want in the Upload section.

Then, time to program your game! Start by coding all of the main interactions in your game first, as these will define how to progress through the game.

Open the Code editor and click on CoBlocks to create a CoBlocks script.

To program an object, right click on it, click Code and activate Use in CoBlocks.

When you’re done, hit Play to test your game! Check that the player is able to go through the whole game and reach the end. Make any modifications you want until you’re happy with it!

Then, let others play your game and play your classmates’ games. Can you improve your game based on your classmates’ feedback?
Game examples

Space Quiz
[Link](cospac.es/60Ba)

VR Adventure Game (parkour)
[Link](cospac.es/e6DQ)

Colorful Jenga
[Link](cospac.es/RplH)

Egg Hunt
[Link](cospac.es/No76)

Have the MERGE Cube add-on?
You can also create a game to be played on the MERGE Cube!