

Interesting zoo creation

Lesson plan

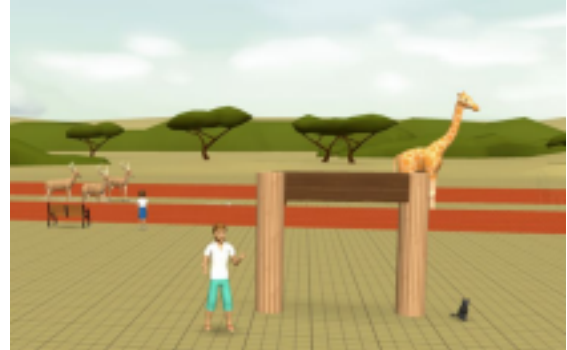
Created by Codesmine Academy

Education level: From primary school

Subject: STEAM, Computer science

Format: Individual or in groups

Duration: Approx. 1 hour



Introduction and lesson objectives:

This lesson plan teaches how to create a zoo composed of two main parts depending on your choice. One part is about using the “path” item. The other is about programming with “if” and setting variables so that kids learn programming skills.

Kids also get to develop 3D creation skills by building their own interesting zoo!

Learning goals and student benefits:

- Learn 3D creation skills
- Develop design skills
- Develop creativity
- Develop computational thinking
- Learn basic block-based coding

Activity example:

1. Give your students some time to create a nice zoo in a 3D environment.
2. Ask them to create a quiz related to the animals in their zoo using a quiz panel.
3. Ask them to code that the animals appear when the quiz is answered correctly.
4. Let kids add other animals and program them to walk along paths in the zoo.
5. Give them a chance to share their interesting zoo experience with others.

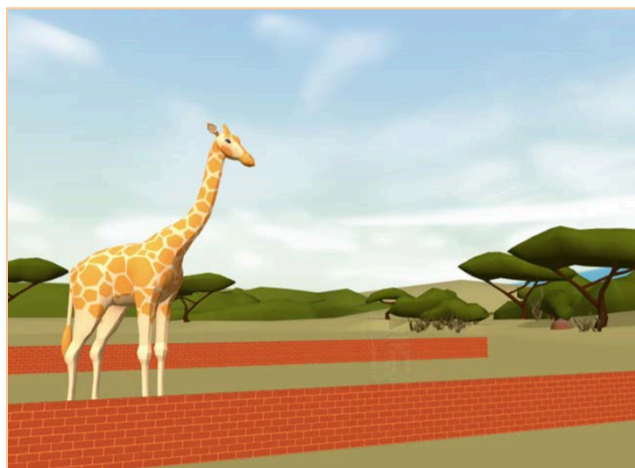
Extension idea:

Ask your students to present the AR experience they've created to the class, going through the information displayed in AR.

Assessment and evaluation suggestions:

- Have your students managed to create a unique and interesting zoo?
- Did your students use various creation tools in Delightex Edu?
- Have your students successfully shown their design thinking skills?
- Have your students animated their zoo using ready-to-use animations and code?
- Have your students created a quiz with relevant information?

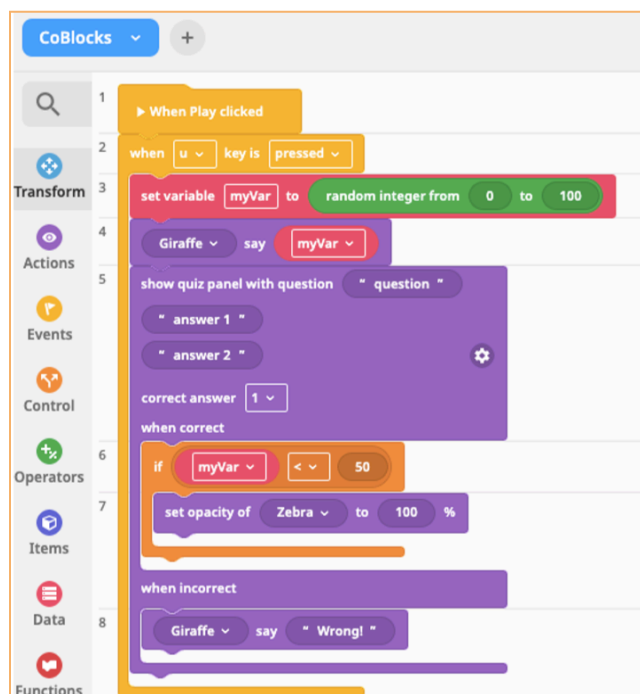
Creation guide



First, let's build a nice area with a giraffe and a zebra from the **Animal** category in the **Library**. Define both animals to have an opacity of 0% at the beginning. To do this, double-click or right-click them and open **Material**.

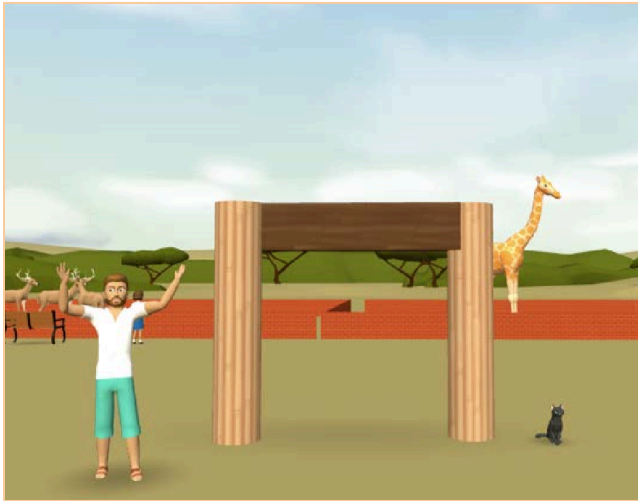
Let's code that when a key is pressed, a **quiz panel** pops up. If the player answers correctly, the animals' opacities will turn from 0% to 100%, making them appear.

Enable the animals to be used in CoBlocks by double-clicking or right-clicking them and activating **Use in CoBlocks** under **Code**.



- The CoBlock in line 1 starts the code.
- The CoBlock in line 2 activates the code following it when the key **U** is clicked.
- The CoBlock in line 3 sets the **variable** to be a **random number** in range of **0-100**.
- The CoBlock in line 4 makes the giraffe say the value of the **variable** from line 3.
- The CoBlock in line 5 shows a **quiz panel** with a **question** and 2 possible **answers**.
- The CoBlock in lines 6-7 is a condition that if the player has answered correctly and the **variable** is **smaller than 50**, the opacity of the zebra turns to **100%**.
- The CoBlock in line 8 is the outcome of

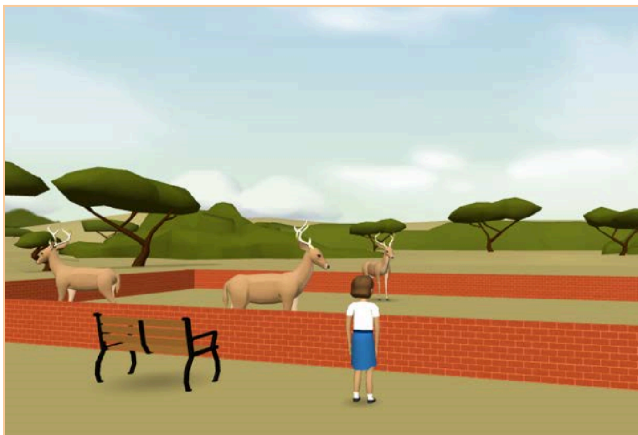
when the player answers incorrectly.



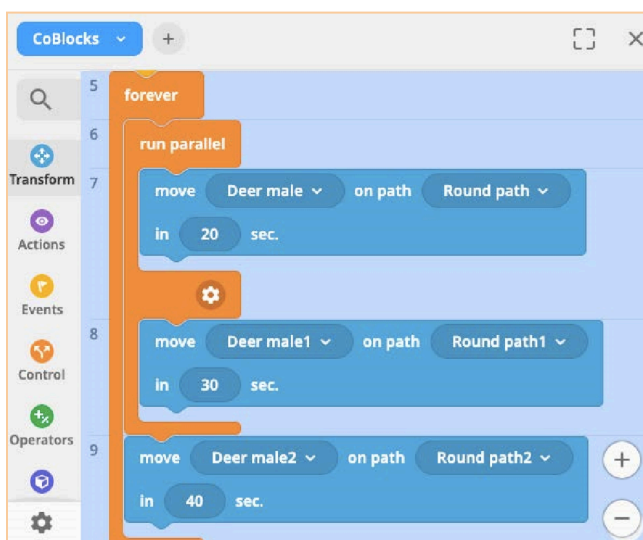
Time to build the zoo's entrance! In the **Library**, go to the **Building** category to use **building blocks**. You can use two **cylinders** and one **cuboid** and adjust their size and material.

Attach them one by one by double-clicking them, then clicking **Attach** and choosing where it should be attached.

In the **Library**, you can also add different **Characters** to your zoo.



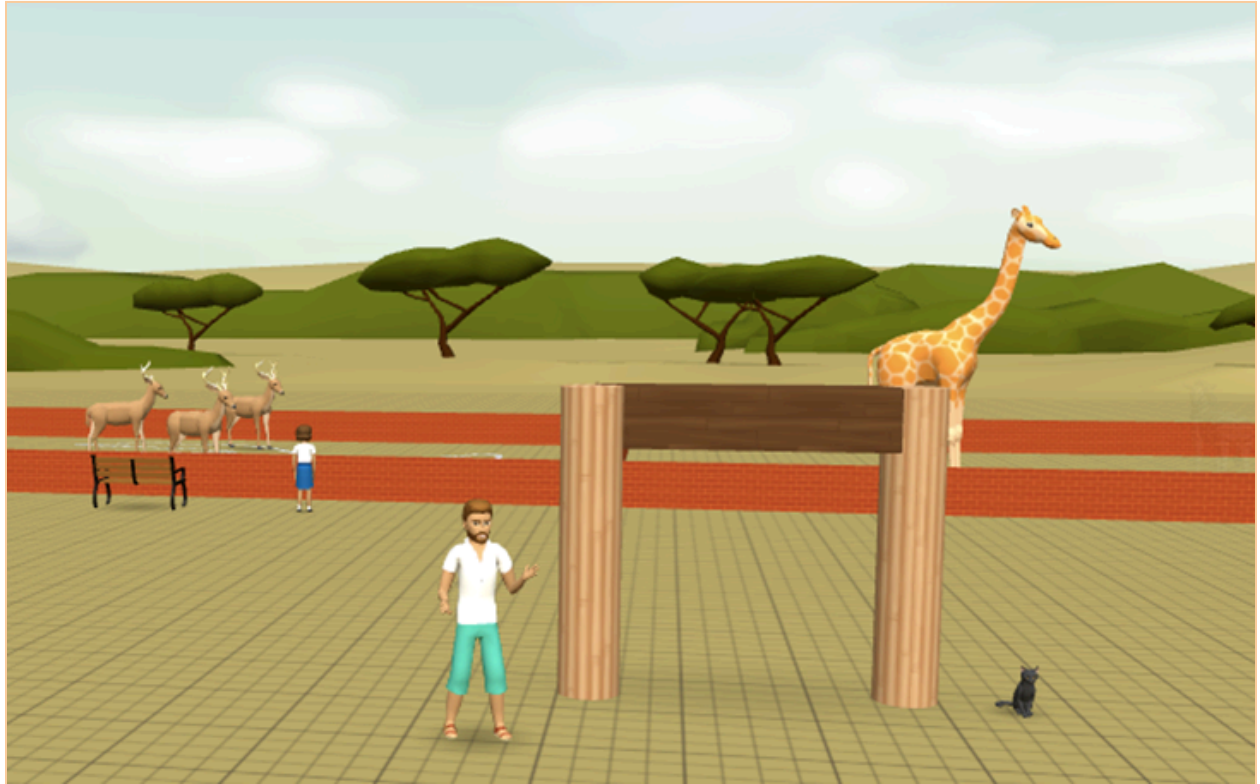
Let's build an area for deers to walk around within a brick wall. Go to the **Building** category to add a **brick wall** and place it in the appropriate position. Then, go to the **Animal** category to add different animals and place them as you wish. Now, go to the **Special** category and add a **Path** under each animal. Double-click each animal and path to enable their **Use in CoBlocks**.



- Line 5 sets the following action to repeat **forever**.
- Line 6 defines the three actions in blue to run at the same time.
- The next CoBlocks define the actions to run at the same time.

That's it! Play your Project and test whether your code is working. You can then let other players discover your zoo!

Example Project



edu.delightex.com/KQJ-YZW

