Digital Scavenger Hunt: Asking for and giving directions

Created by Anna Katia Liuzzi, Delightex Edu Ambassador

Short description:
Students design a coded scavenger hunt, practicing directions, building a 3D scene, and collaborating to guide a character to treasure.

Educational level: Adaptable to all levels

Subjects: STEAM and language learning

Format: Group-based, cooperative learning

Assignment duration: approx. 4 hours

Introduction:

This lesson plan leverages the motivating and engaging nature of a scavenger hunt to help students practice essential vocabulary and phrases for asking for and giving directions (e.g., “turn left,” “go straight”). The activity centers on an interaction between two characters, with one guiding the other toward a hidden treasure.

By the end of this lesson, students will be able to:

- Design and create their own scavenger hunt.
- Use directional vocabulary fluently within a scripted context.
- Apply sequential logic to program character movements.
- Build an interactive 3D scene using CoBlocks.
- Collaborate effectively to debug and refine their code.

Learning goals: This activity goes beyond basic language practice by integrating computational thinking and problem-solving skills.

- Language acquisition:
- Computational thinking
- Collaboration
- Creative expression

Lesson structure: (for the teacher)

1. Introduce Delightex Edu and the basic tools students will use for the scavenger hunt.
2. Assign the task: “Your team’s mission is to create a scavenger hunt. The story begins with a **boy** and a **turtle dove**. The turtle dove gives the first clue, leading the boy to a specific place. When the boy arrives, the turtle dove gives a new clue, and so on, until the final clue leads to the hidden treasure.”
3. Choose an appropriate environment and place the boy, the turtle dove, and several buildings (e.g., a school, church, cinema).
4. Hide the final treasure, a **diamond**, in a specific location.
5. Add several paths that will allow the characters to move between locations.
6. Program the turtle dove to deliver a series of clues, each guiding the boy to the next place.
7. Program the boy to follow the turtle dove’s directions, stopping at each location to receive the next clue until he finds the treasure.

Evaluation suggestions:

1. Did your students successfully create a scavenger hunt?
2. Did they use the specific vocabulary and common expressions for asking for and giving directions correctly?
3. Did they code the turtle dove to provide clear instructions?
4. Did they code the boy to follow those instructions accurately?
5. Is it easy for the viewer to understand the progression of the scene?
6. Did your students collaborate effectively while creating their Project?

Extension ideas:

To increase the challenge, you can add a competitive element or raise the complexity.

- Students can include multiple hidden objects and more complex paths, requiring a wider range of directional commands.
- Students can also code the turtle dove to ask the boy topic-related questions before giving the next clue; correct answers allow him to continue, while incorrect ones keep him stuck until he tries again.
- One team can create a scavenger hunt while another team attempts to complete it, and then they switch roles.

Assignment steps (for the student)

Duration: 4 hours

1. Before getting started, think about the type of scene you want to create: environment, buildings, characters, treasure, character dialogue, street directions, and more.
   Then open **Delightex Edu**, create a new Project, and choose an **environment** in which to build your scene.

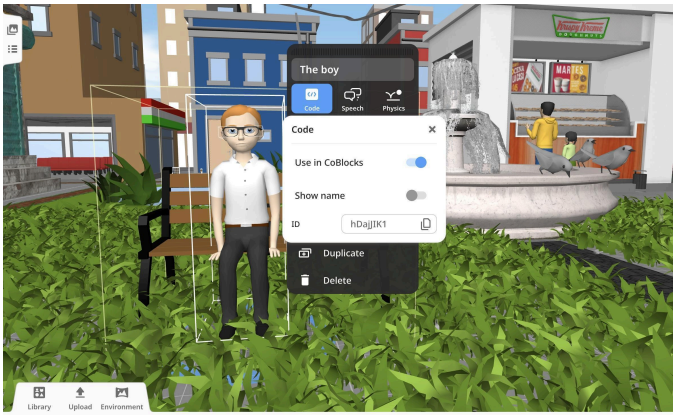
2. Fill the environment with buildings and characters from the **Library** section by dragging and dropping them into the scene. Then position each item where you want it within the environment.

3. If you need an object that isn't available, click **Upload** → 3D Object, then search for the item you want and drag and drop it into the scene.

   You can easily customize any object or character by double-clicking or right-clicking on it.

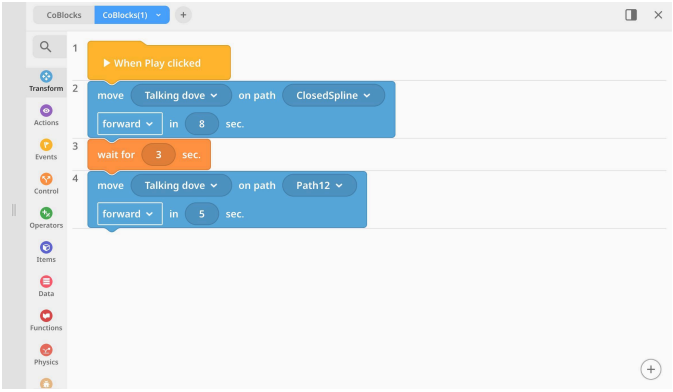
4. Add multiple paths from the **Library** and place them in the scene, keeping in mind the route your characters will follow.

   By double-clicking or right-clicking on a path, you can customize it as needed.



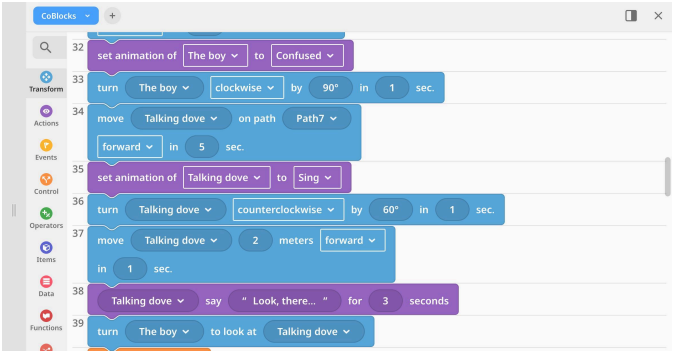
5. It's time to code your characters and objects. Double-click or right-click on the item, select **Code**, and make sure the Use in CoBlocks option is turned on.

   Add animations to your characters by double- or right-clicking on them, selecting **Animation**, and choosing the one you prefer. You can change it later if needed.



6. To move your characters along a path, use the light blue **Move** block:

   Move (name of character) on path (name of path) forward/backward in (number) sec.

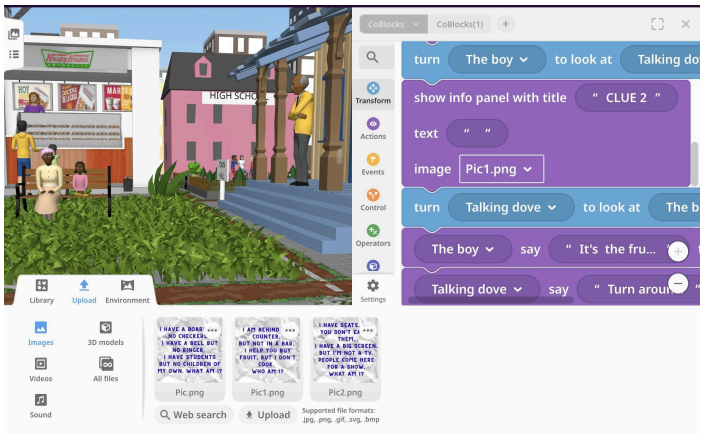


7. You can turn your characters to a specific angle using the light blue **Turn** block:

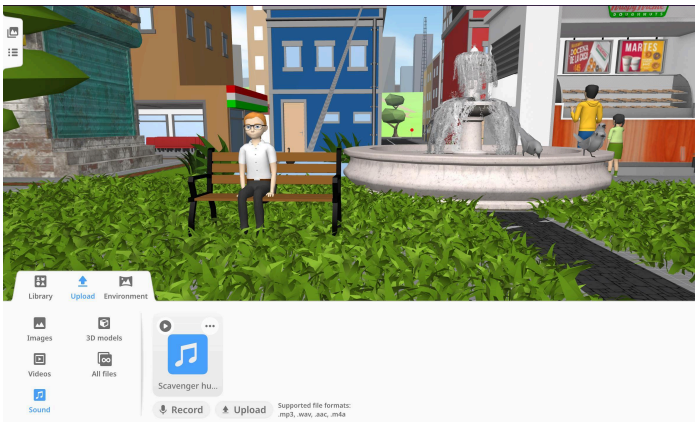
   Turn (name of character) clockwise/counterclockwise by (angle) in (number) sec.

8. To create a conversation between the two characters, use the violet block (**Name of character**) say (text) in (number) sec.

   To change a character's animation, use the violet block **Set animation of** (name of character) **to** (type of animation).



9. To show clues to the viewer, you can create images in Canva, then download and upload them into your project. Next, use the violet **show info panel** block and select the image you want to display.



10. You can add sound to the scene by uploading an audio file. Then use the purple block **play sound (name of sound) wait until finished true/false** to control how it plays.

Example: https://edu.delightex.com/UGM-SJQ