



Hour of Code

Christmas CoBlocks Challenge

Created by Michael Fricano II, Delightex Edu Guru Ambassador & Training Partner

** A Delightex Edu Pro account is needed for this activity.*

Education level: Grades 2 to 12

Subject: STEM, Computer science

Format: Individual activity

Duration: 1 hour or more!



Introduction and lesson objectives:

During Hour of Code week or for the holiday season, use this fun Christmas-themed CoBlocks Challenge with your students. They'll learn how to use a variety of CoBlocks with Santa and Buddy the Elf! This activity contains 3 main scenes and 1 bonus scene,, each with their own CoBlocks challenge:

- **Scene #1:** Program Buddy the Elf to follow a path around the Christmas tree.
- **Scene #2:** Program Santa to move to the Christmas tree when clicked, then program the presents to “appear” under the tree.
- **Scene #3:** Program the snowman parts to move into position when clicked in order to form a snowman.
- **Scene #4:** Find Buddy the Elf’s 5 hidden presents and learn how to make your own seek-and-find game!



Programming goals:

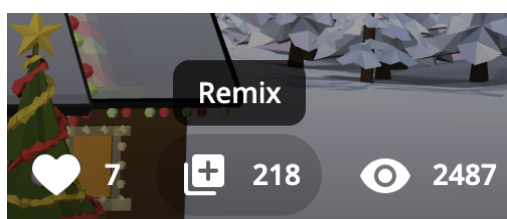
- Coding an object to follow a path
- Finding different ways to make objects disappear and appear
- Moving objects to X, Y, and Z coordinates

Activity preparation:



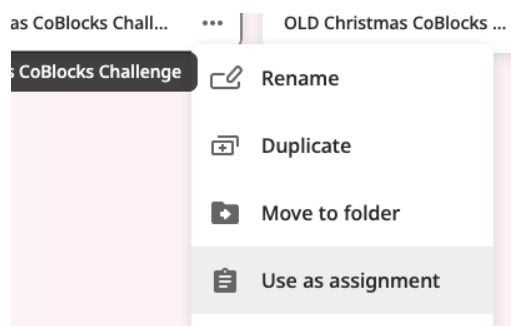
Visit the master project using one of these methods:

- Share code: **VSM-NMS**
- Share link: edu.delightex.com/VSM-NMS



Remix the master project to get a copy of your own. A *Pro account* is needed to Remix.*

* Try Pro for **FREE** for **60 days** for you and 99 students with this trial code: **DXMICHAELFR** (learn more [here](#))

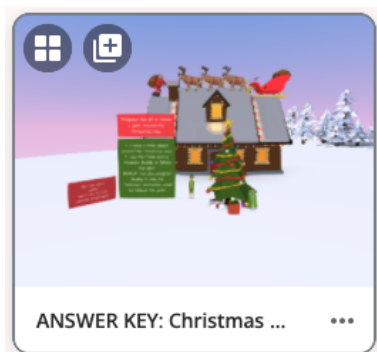


Open your own copy from your **Projects** menu.

Set it up as an assignment for your students by clicking **Use as assignment**.

Students will work through each scene, creating CoBlocks scripts to complete each

challenge. See below for each challenge overview and the CoBlocks answer key.



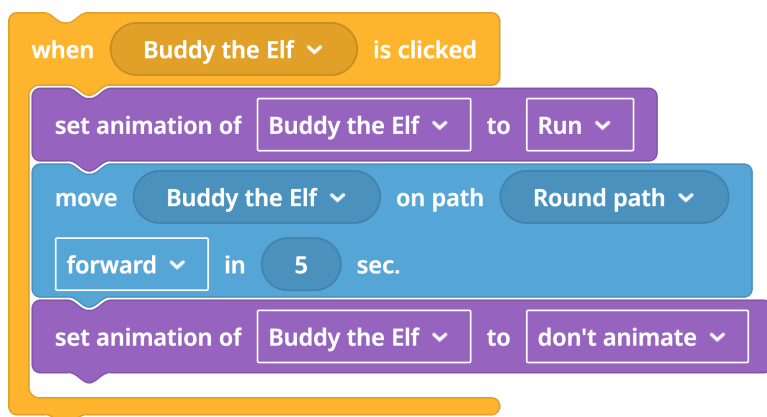
This project can be used to access the CoBlocks **answer key** for each scene:

- Share code: **MVU-CXN**
- Share link: edu.delightex.com/MVU-CXN

Scene #1: Program Buddy the Elf to follow a path around the Christmas tree.

1. First, students will need to add a round path from the **Special** category in the Delightex **Library** and position the path around the Christmas tree.
2. Then, students will create a **CoBlocks** script to move Buddy the Elf on the path.

Answer key:



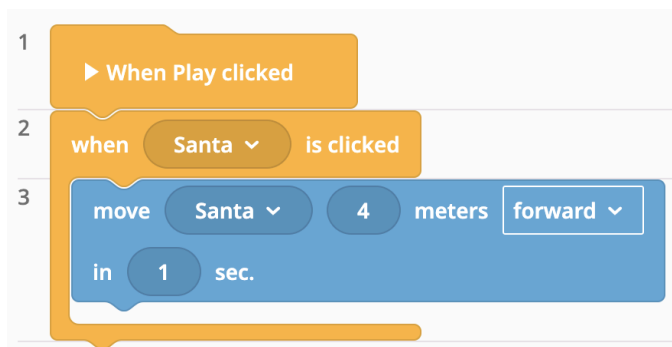


Scene #2: Program Santa to move to the Christmas tree when clicked, then program the presents to “appear” under the tree.

1. First, students will need to create a CoBlocks script that has Santa move from the fireplace to the Christmas tree.

TIP: Students can use several CoBlocks methods to accomplish this:

Method A: Program Santa with a **Move** CoBlock



Method B: Program Santa to move on a straight path
(create a straight path object first)

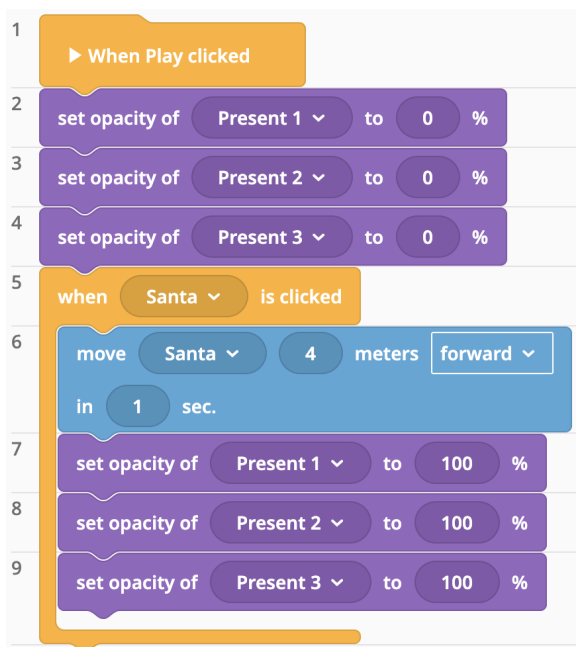


Method C: Program Santa to move to X, Y, and Z coordinates





2. Then, students will add CoBlocks to the script to make the presents “disappear” when the scene starts and then “appear” after Santa walks to the Christmas Tree.



Answer key:

No matter which method students use, the **opacity** CoBlock can be used similarly in any method.

The **opacity** CoBlock set to **0%** for each present will make it “**disappear**” from the scene.

The **opacity** CoBlock set to **100%** for each present **after** the **move** CoBlock for Santa will make it “**appear**” in the scene.



Scene #3:

Program the snowman parts to move into position when clicked to form a snowman.

Students will use multiple Event **when clicked** and Item **Attach** CoBlocks.





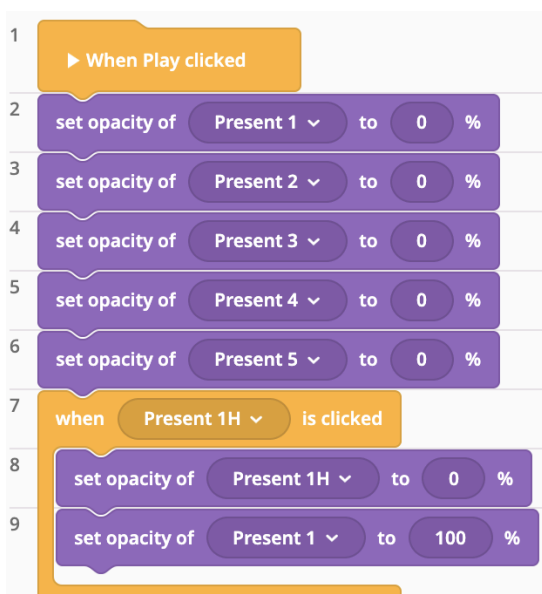
Scene #4:

Extension idea:

Students can create a seek-and-find game!

See **scene 6** in the [ANSWER KEY PROJECT](#) for an example of this extension idea.

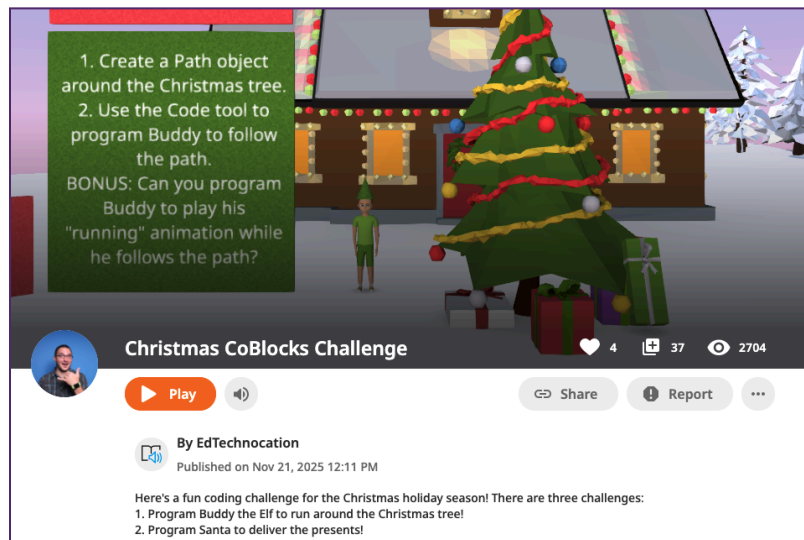
1. Students can duplicate scene 4 in their own project (Challenge #1).
2. Duplicate the presents under the tree to create more. Or students can add other objects to the scene.
3. Each object will need to be duplicated so that there are two. For example, if a student adds a toy car, there should one toy car hidden in the scene and the same toy car placed under the Christmas tree.
4. Code each object so that when it's clicked, it disappears and appears under the Christmas tree.





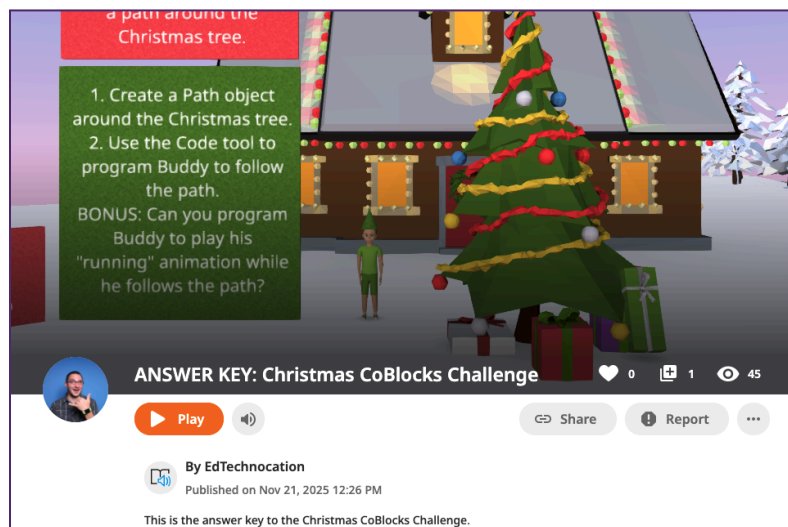
Example Project

(master project for Remixing)



Christmas CoBlocks Challenge

edu.delightex.com/VSM-NMS



ANSWER KEY: Christmas CoBlocks Challenge

edu.delightex.com/MVU-CXN