Spring 2 – Computing: Learn to make a platformer 2021

WEEK 7

MakeCode Unit: Learn to make a platformer
Tutorial: Learn to use MakeCode arcade
Key Vocab: blocks, categories, project.

- Follow the tutorial prompts
- Find blocks in the toolbox
- Build code in the workspace
- Run your game on a built-in simulator

https://arcade.makecode.com/--skillmap

Lesson 1: Simple platformer
Key vocab: side scrolling, sprite, tile map

- Move by using "jump" and "run"
- Change background colour
- Create a simple platformer game

https://arcade.makecode.com/--skillmap

WEEK 8

MakeCode Unit: Learn to make a platformer
Lesson 2: Camera and tiles
Key Vocab: spawn, overlaps, acceleration.

- Get your camera to follow your sprite
- Set a starting position for your sprite
- Add some danger to the game!
- Add a way to win or lose the game

https://arcade.makecode.com/--skillmap

In this tutorial, you'll create a way to win or lose our platformer game.

WEEK 9

MakeCode Unit: Learn to make a platformer
Lesson 3: Simple enemies
Key Vocab: array, loop, value

- Create enemy spawn points
- Spawn some enemies
- Add some sprites overlap conditions
- Make your sprite bounce

https://arcade.makecode.com/--skillmap

In this lesson, we'll take what we made in previous tutorials and add simple enemies. We'll also use a sprite overlap event to have enemies interact with the player sprite.

WEEK 10

MakeCode Unit: Learn to make a platformer
Lesson 4: Multiple levels
Key vocab: levels, function, variables

- Create a starting level
- Change the scene
- Reach the trophy
- Add another level

https://arcade.makecode.com/--skillmap

This tutorial will help add levels to your game.
To make level changes easier (and prevent having to write the same code again and again) we'll also learn to create a simple *function*.

WEEK 11

MakeCode Unit: Learn to make a platformer
Lesson 5: Enemy AI
Key vocab: condition, action, array

- Spawn enemies from the purple tiles
- Condition your enemy to jump or turn
- Create interactive tile maps
- Make a loop to check on every enemy

https://arcade.makecode.com/--skillmap

Did you feel like the enemies in your last game were a little...well...unintelligent? In this lesson we'll learn how to make enemies smarter, using simple *AI*.

WEEK 12

MakeCode Unit: Learn to make a platformer
Lesson 6: Assessment – create your own game!

Start a new project and by using the knowledge you have gained in previous lessons, make your own game.

https://arcade.makecode.com/#editor

- **Name your project and create a game**

If you are doing this from home you need to take a screenshot of your game and send it to your teacher

You do that by pressing this icon under your game screen, saving the screenshot and emailing it to your teacher.

If you're in school, your teacher will look at your game.