Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

pytch_

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Lesson 8 — alternative to quiz

Lesson 8 is offered as a quiz. We also provide an extension activity in the form of a brief for a portfolio piece. The students will have to work on https://pytch.org/ directly for the below:

> **Write a game where apples and oranges randomly appear, move across the screen, then disappear. The player has to click on the apple or orange before it disappears. If the player manages, they get 10 points, and that fruit disappears straight away. Each time a fruit appears, that fruit should have a speech bubble saying the player's current score.**
>
> **Hints:**
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> - **Use the "choose from library" feature to get apple and orange costumes.**
> - **Use the "when this sprite clicked" hat block to tell Pytch to run a piece of code when the player clicks on the sprite.**
> - **Have one sprite with two costumes.**
> - **Give your sprite two scripts — one to do the "appear, glide, disappear" sequence again and again; and one to react when the sprite is clicked.**
> - **For each movement across the screen, you'll need to choose four random numbers: the x and y values for the starting point, and the x and y values for the ending point. You can use random.randint() for generating the random numbers.**
> - **Use a variable "self.score". Think about when to set its starting value, and when and how to change it.**

Possible solution:

In a "when green flag clicked" script:

```python
self.score = 0
while True:
    start_x = random.randint(-220, 220)
    start_y = random.randint(-160, 160)
    costume_idx = random.randint(0, 1)
    self.go_to_xy(start_x, start_y)
    self.switch_costume(costume_idx)
    self.say(self.score)
    self.show()
    end_x = random.randint(-220, 220)
    end_y = random.randint(-160, 160)
    self.glide_to_xy(end_x, end_y, 1.0)
    self.hide()
    pytch.wait_seconds(2.0)
```

In a "when this sprite clicked" script:

```python
self.score = self.score + 10
self.hide()
```

There is more than one way to interpret the brief. The student's solution needn't be exactly like this.