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

pytch_

DUBLIN
TECHNOLOGICAL UNIVERSITY DUBLIN

Lesson 3 Plan

Topic:	3 – Adding repeating behaviour to Pytch programs using loops. Working with random numbers to make variability.
Subject Area:	Python (via Pytch)
Class	
Duration (approx.)	40 Minutes
Prior knowledge of students:	Basic computer skills (follow provided link). Some prior exposure to Scratch beneficial but not essential. Previous lessons in series.

Python through Pytch exercise	
Activity name:	Continuing the Chase Game from Lesson 2.
Activity objective(s):	Continue to build a Pytch project with more complexity. Add a new sprite, add additional behaviour with infinite loops and random numbers.

Activity details

Timing and content

Time (minutes)	Section
6	Pytch and Python main ideas: multiple sprites, while true loops, random numbers
5	Predict (pair work, worksheet 1)
3	Run (pair work, worksheet 1)
12	Investigate (pair work, worksheet 2)
12	Modify/Make (pair work, worksheet 3)
2	Recap

Pedagogy

Predict	Understand a multiple-sprite program which has repeating behaviour and uses random numbers
Run	Verifying understanding by running pre-supplied project
Investigate	Investigating aspects of Python syntax, while true loops and generation of random numbers via prompted questions (slide 9 / worksheet 2)
Modify	Confirming understanding via prompted tasks: using random numbers to make the sprite begin the movement from a random position and move around the stage unpredictability (slide 10 / worksheet 3)
Make	(extension activity) — independently add a third sprite with different looks and behaviour

Differentiation	
Worksheet 1	Recognise program elements (statements, declarations). Predict program behaviour, recognise how actual program may vary
Worksheet 2	Understand elements of syntax and while true loops
Worksheet 3	Create new programs as a modification of an existing program.

Equipment required	Computer with internet connection
Links	https://pytch.org/app/lesson/sbys/3