CANADA LEARNING CODE

CodeMoji in Python

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Duration: 1.5 hours

LEVEL	SUBJECTS	PROVINCES / TERRITORIES	TOOL
Grades 4-6, 7-8, 9-12	Art, Math	All	Python, Trinket.io

Overview

Learn how to use Python and ProcessingPy to make pretty pictures. A good first class on programming and Python.

Can be done in one or two sessions depending on time available.

Prep Work

- Familiarize yourself with Trinket:
  - http://bit.ly/trinket-tutorial
- Go through the tutorial yourself
- Talk with the class about Emojis and different ways that one might create them: with paint programs, by scanning a drawing or in this case by writing code for the shapes
- Optionally: Let the students log into Trinket using Google Accounts, Clever or Edmodo to save their programs easily
- Introduce Trinket to the class as is done in the video above

Lesson

Key Coding Concepts

- Algorithms
- Conditional statements
- Functions
- Sequence

Terminology

Library

A bundle of reusable code that allows a programmer to achieve something that would otherwise be difficult or impossible. In this case, easy graphics programming.

Function

A list of statements that can be invoked repeatedly in a program, perhaps changing its

Lesson available at:
http://bit.ly/codemoji-processingpy

Assessment

Make a plan for how to access students work in Trinket. You could sign up for Trinket Connect to collect projects, have students email you class links, or gather project links in a shared Google doc or blog.

Extension

Kids can draw any emoji or shape that interests them!

Have learners pair up and write a short story about their emojis using the plot mountain structure.

behaviour on the basis of "parameters" that are passed in.

Coordinates

Numbers which represent where on the screen to draw something. X represents horizontal location, Y represents vertical location.

Variable

Stores a piece of information i.e. the key that the user just pressed.

RGB Colours

Numbers representing the amount of red, green and blue that a shape should exhibit.

Curricular Connections

Colour, Colour models (RGB), Colour theory, Shape and form, Symbols, Alignment, Measurement, Area, Graphing, x,y coordinates, Geometry, 2D shapes

References

ProcessingPy Documentation
https://py.processing.org/reference/