Python Unit 3: Lesson 3: Robotic poetry

40 minutes

Learning Objectives

Learn how arrays can be used to produce phrases within Python.

Success Criteria

Pupils can...

- create phases of text using the random library with arrays
- add adjectives and nouns to an array to affect the random choice
- create a four line poem by using a loop
- understand how and when to use more than one array
- write their own poem by inputting data into arrays and sequencing the code

Starter

10 minutes

Hold up two large envelopes, one labelled NOUNS, the other ADJECTIVES. Explain that we are going to make a funny poem. Ask each child to write an unusual noun on scrap paper. Choose five children to put their scrap of paper in the envelope. Ask all the class to write an unusual adjective. Choose another five pupils to add their adjective to the second envelope.

One pupil will be the computer using Python. What does each envelope now represent (an array). Ask the 'computer' to choose a random word from each envelope. Can he / she write a line of poetry using the random adjective and noun?

Ask the rest of the class to write a complimentary second line. Now add all the pupils' ajecvtives to one envelope and nouns to the other.

Ask a different child to be the python. Can we make a four line poem as a class, using words from each envelope?

Key questions

What is an array?

What effect does the greater choice of nouns and adjectives have on the poem?

Main

25 minutes

Ask pupils to follow the instructions on screen to complete each step of the lesson. Encourage them to experiment and spend time on each step to ensure they understand what each part of the code does.

Key questions

Why are some words highlighted in yellow?

Where does the tab go?

What is the variable?

Plenary

5 minutes

Read out some of the pupil's own Python-generated poems. Which are the most random? What effect does this have?

Extension

Pupils continue their poems offline, working in small groups to write the next verse. Can they think of ways to make the next verse surprising so that it continues to appear random?