

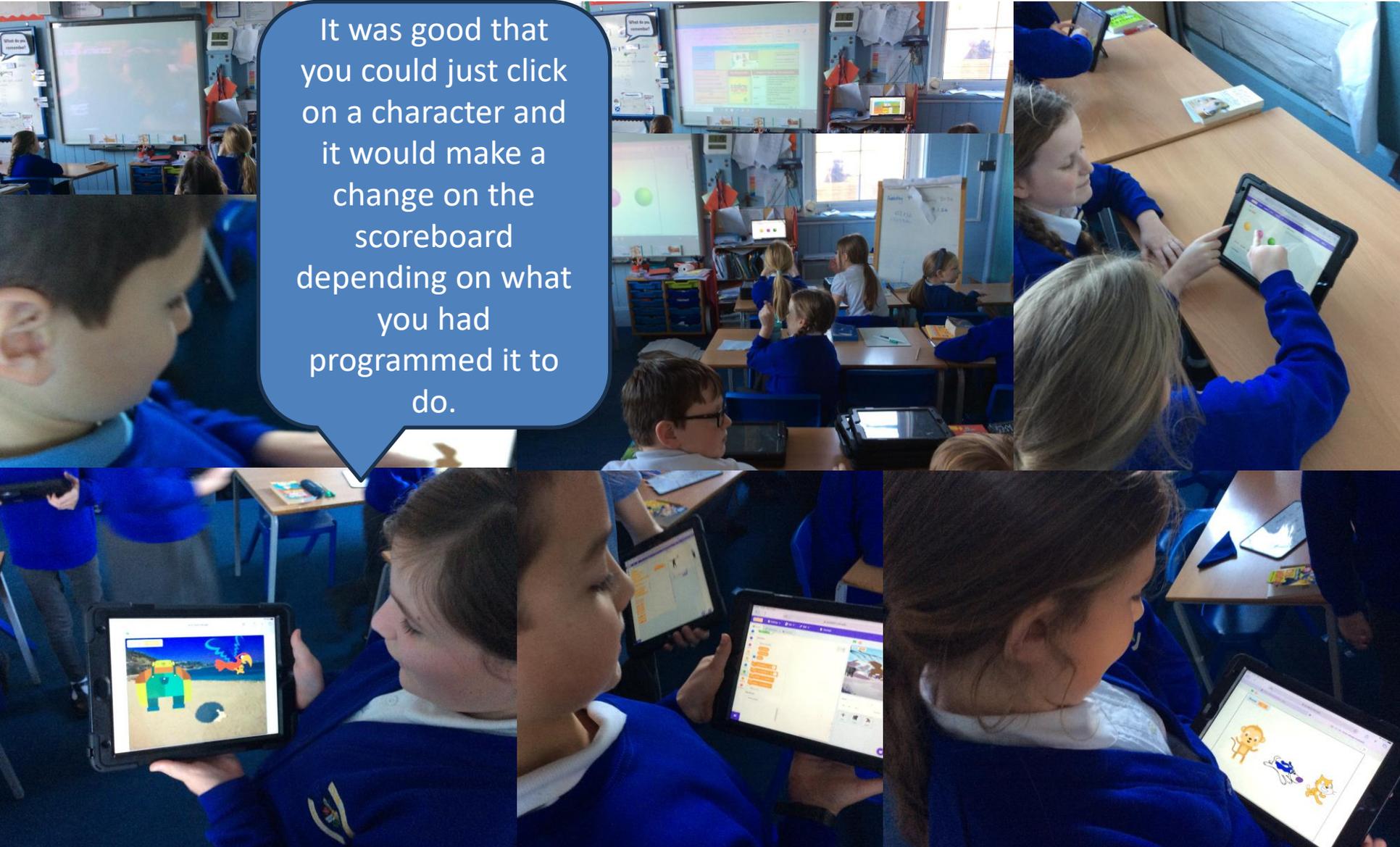
Programming Computing Variables in games

Spring 1 2024

Class Lynher

We started by watching how a scoreboard changes for a football match. We discussed how the numbers that change are variables. We looked at what a variable can be and then went onto Scratch to explore this further. We looked at a scoreboard that was already made and amended it. Then we made our own.

It was good that you could just click on a character and it would make a change on the scoreboard depending on what you had programmed it to do.



We explored variables further and thought of them as a place holder that can only hold a single value at a time. We thought about the importance of naming a variable and how a space is shown. We then applied what we had learnt to create, name and update variables in Scratch. We also learnt how to make them say something.

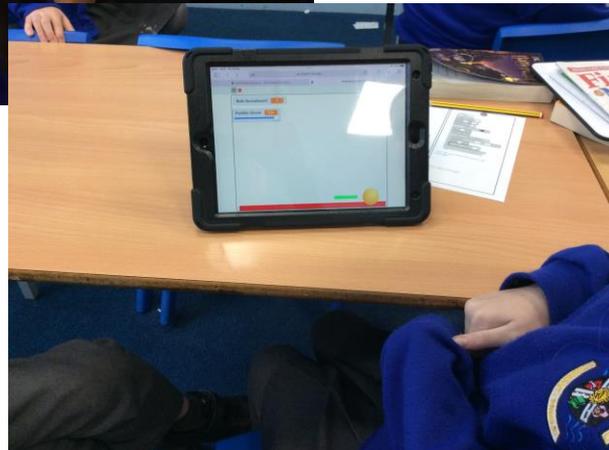
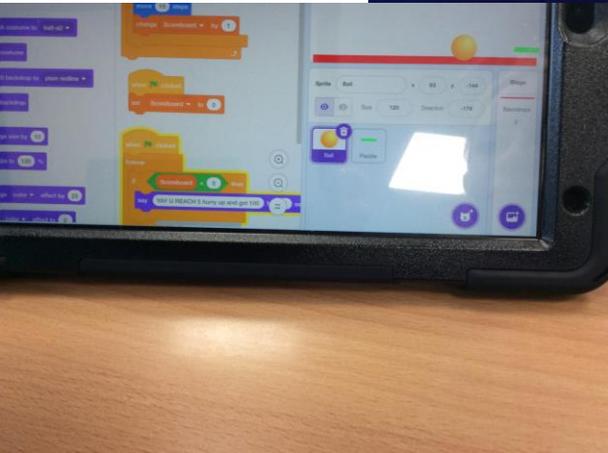
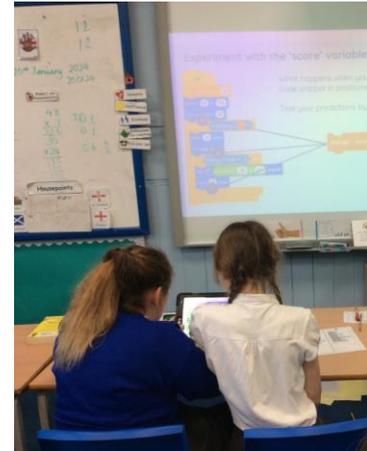


It is important to name a variable so the computer knows which one you want to change.



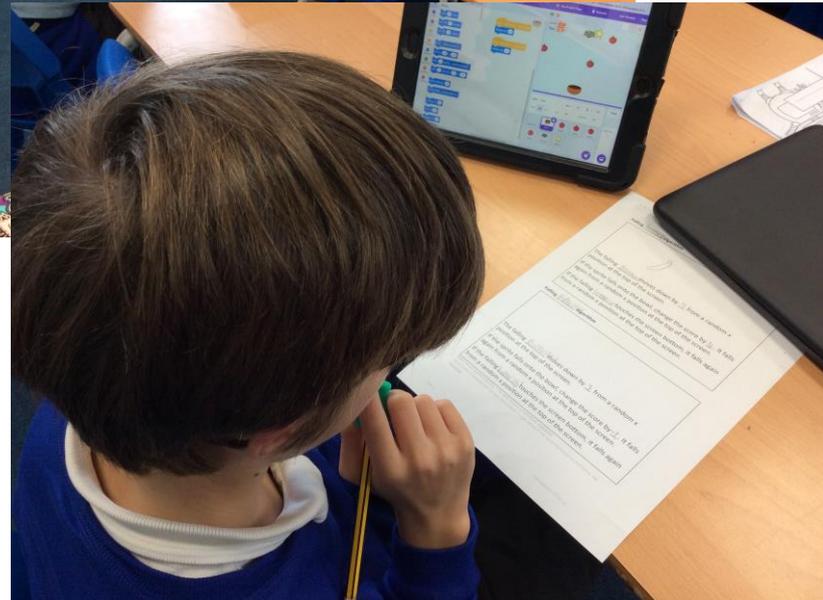
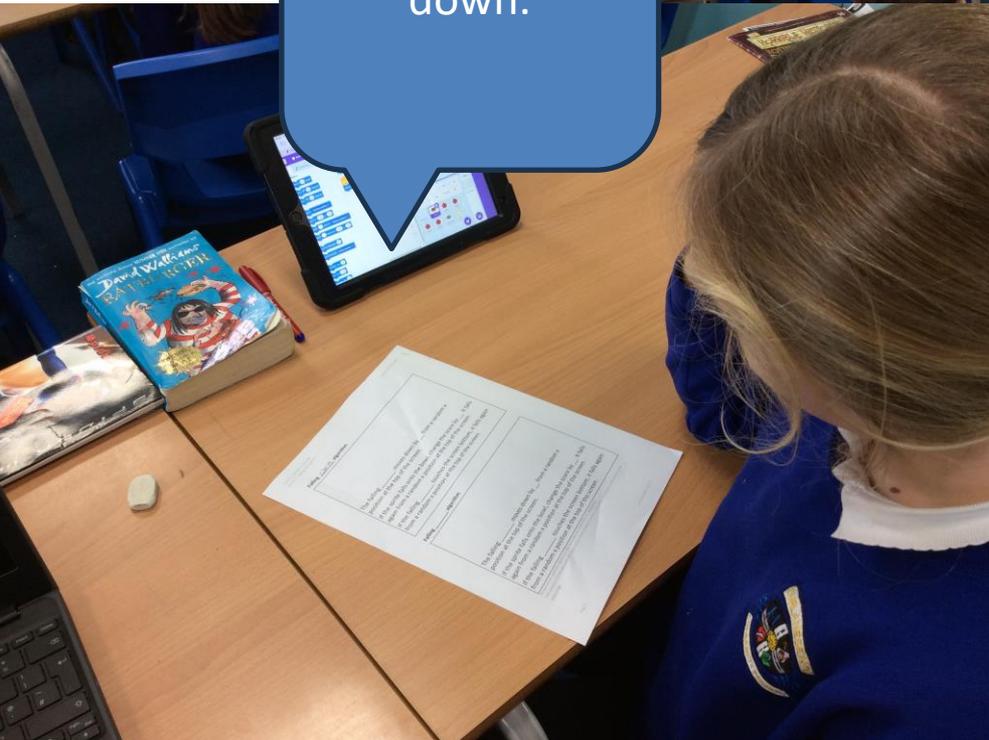
This week we were applying what we had learnt about variables on an existing game in Scratch. We thought about where to change a variable in a program, made predictions and tested them. Then we made use of an event in a program to set a variable. We also learnt about operator blocks and added one of these in.

You have to put your blocks in the correct place or they may not work when you want them to.



We explored a falling fruit game where you scored points, identifying the variables and how it worked. Then we planned our own game used this as a basis.

We had to link to our maths to work out how to slow our sprites down.



Personal Development: They will understand the role programming plays in real life
 The jobs it can be used in are:
 Games designer



What I have learnt before:

Sequence, repetition and selection in programming

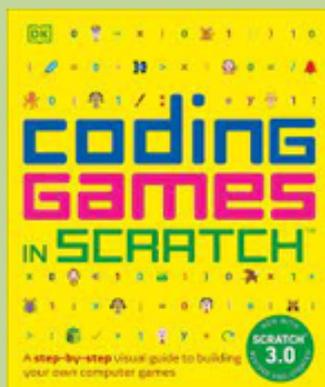
Forever facts

- Variables can hold numbers or letters
- Variables have a name and a value
- The value of a variable can be changed
- When the value of a variable is updated, the original value is replaced

Skills

- I can identify examples of information that is variable
- I can change the variable in a program
- I can create algorithms for my project
- I can test the code that I have written

Exciting Books



Our Endpoint

I can create a game using variables

Subject Specific Vocabulary

variable	a named piece of a data stored in a computers memory which can be accessed and changed by a computer program
algorithm	a precise set of ordered steps that can be followed by a human and implemented on a computer to achieve a task
value	data – can be alphabetical or numerical
change	make something different
name	what something is identified by
code	the commands that a computer can run
test	try out to see if it works
debug	find and correct errors in a program