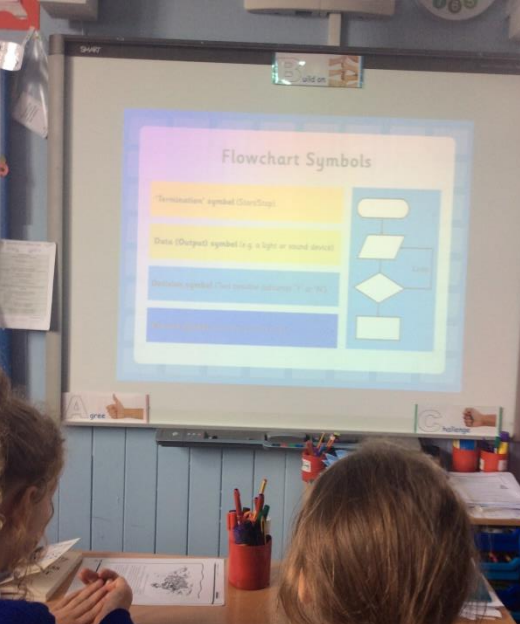


FLOWOL Computing

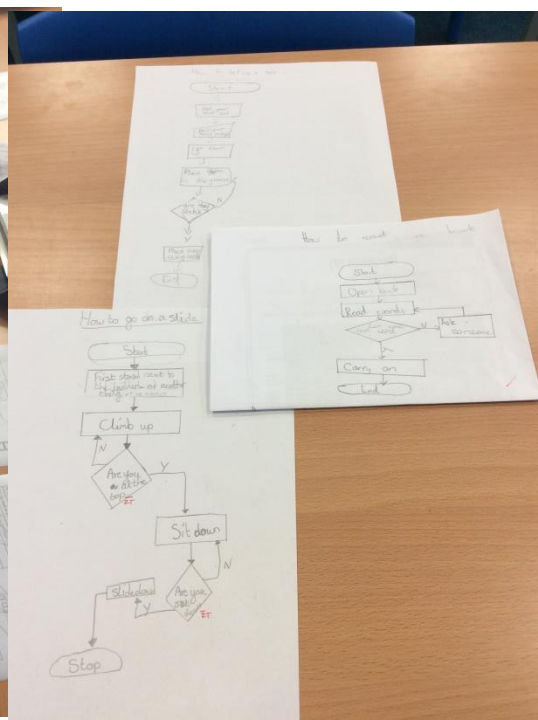
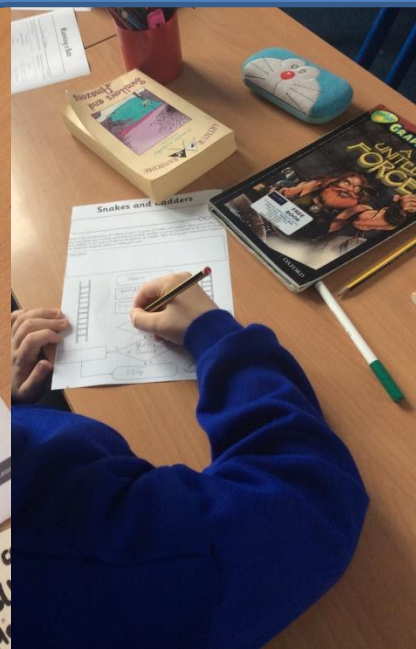
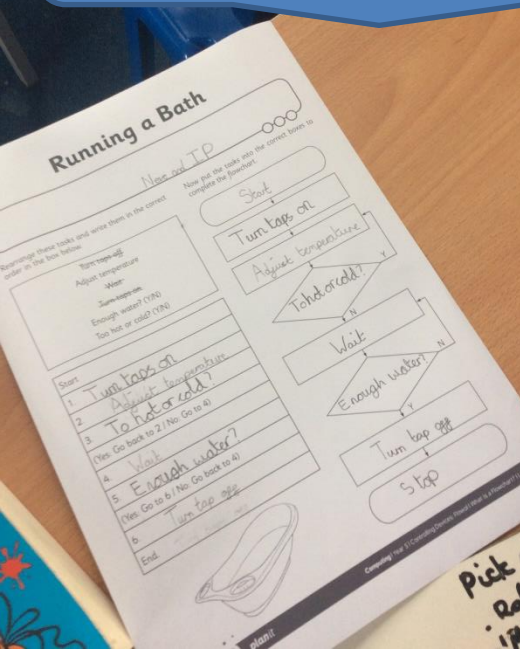
Spring 2022

Class Lynher



For our first lesson we learnt what a flowchart was and how the different boxes had different functions. We then worked together to write one for running a bath before doing our own.

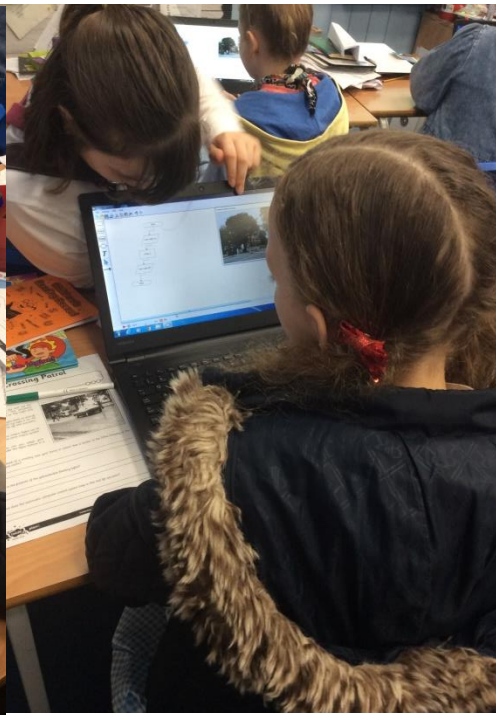
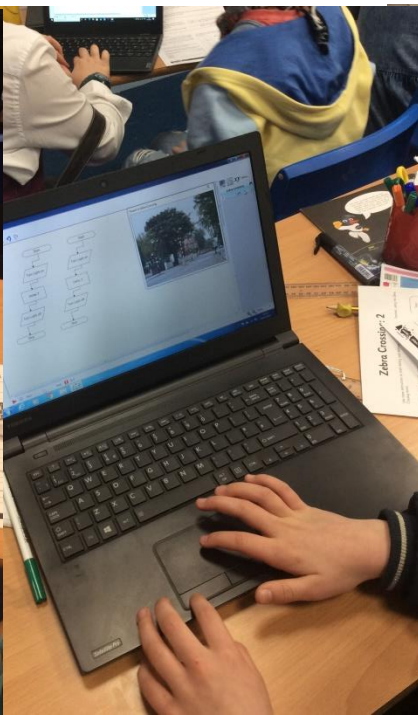
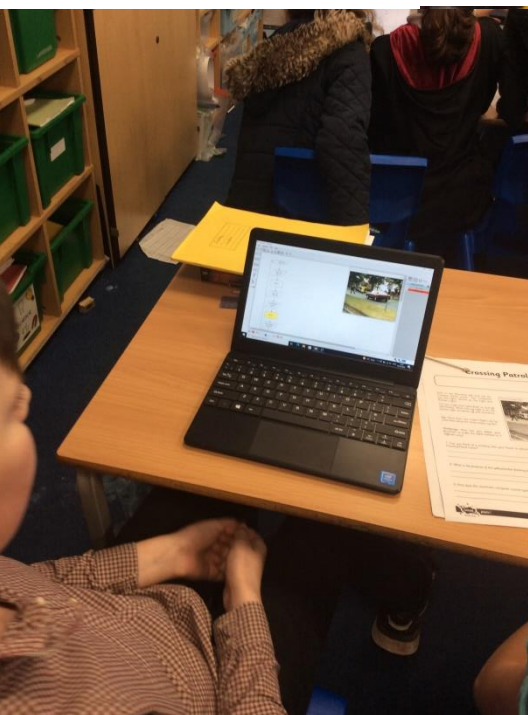
We needed to make sure we put each instruction in the right box because it needed to be in the right order to make sense.

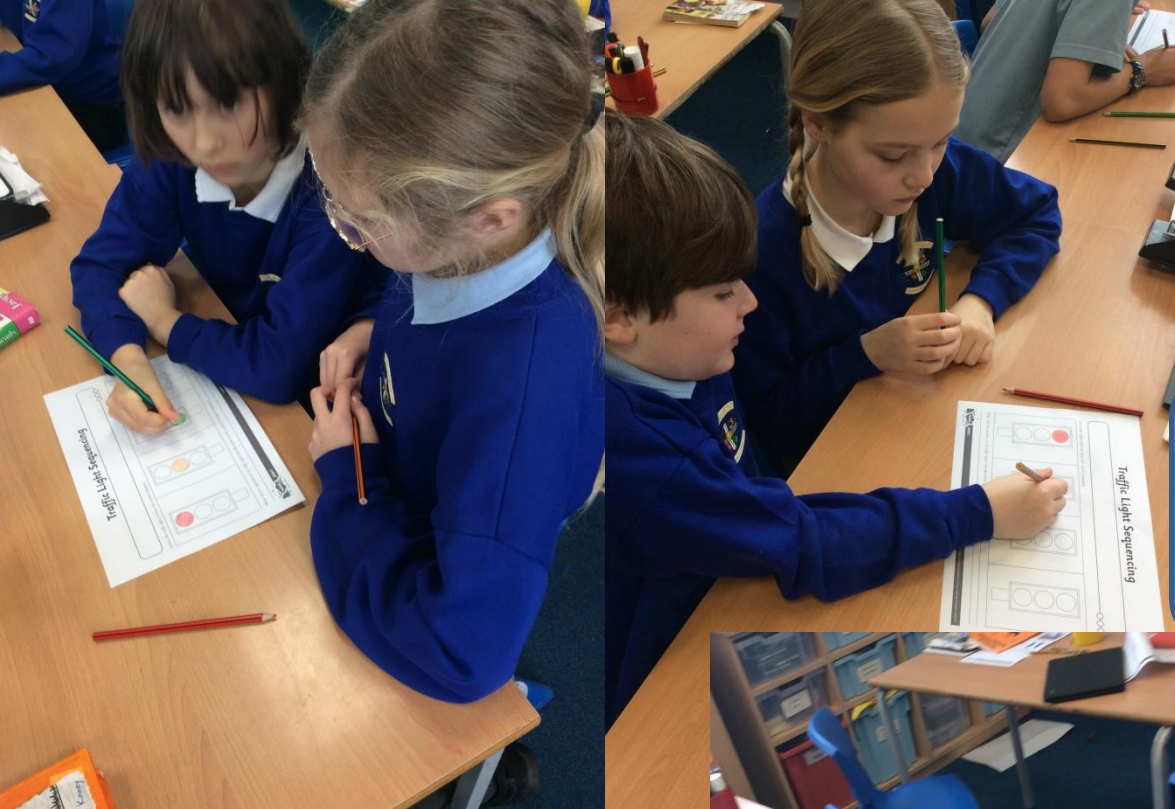




For this lesson we looked at how a flowchart can be completed on a computer to simulate a real life situation – a mimic. We did one for a pelican crossing and a school crossing.

The oval box is for start and stop. The parallelogram is for output. Delay is a rectangle.





We had to remember that if we didn't want a crash, if one set was on green or amber, the other had to be on red.

For this lesson we first tried to remember the sequence that traffic lights go through before looking at a traffic light mimic. We then programmed one set of lights and for a challenge tried to get the opposite to work at the same time.

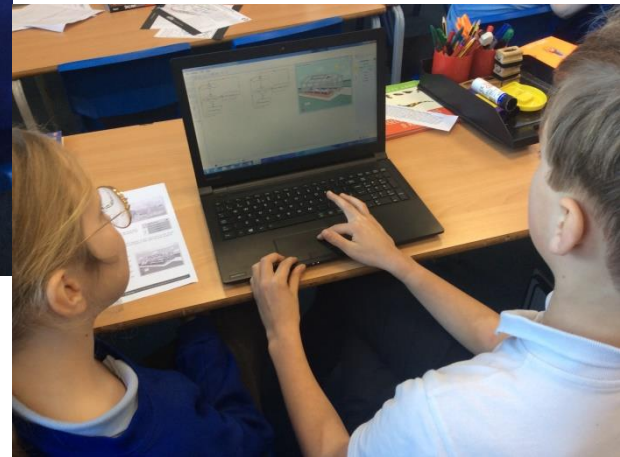
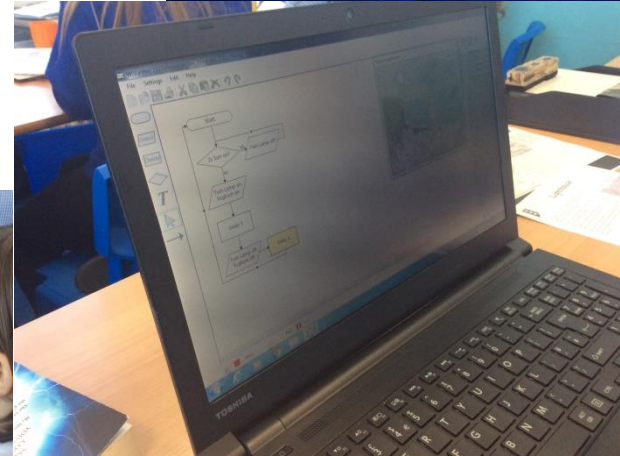
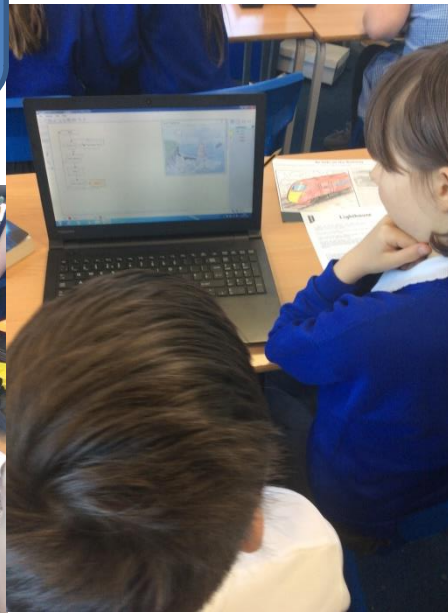
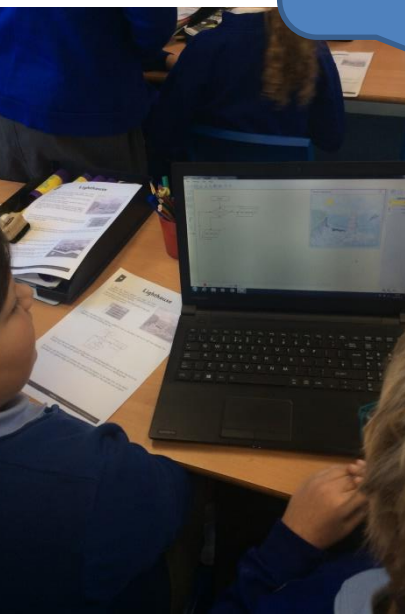


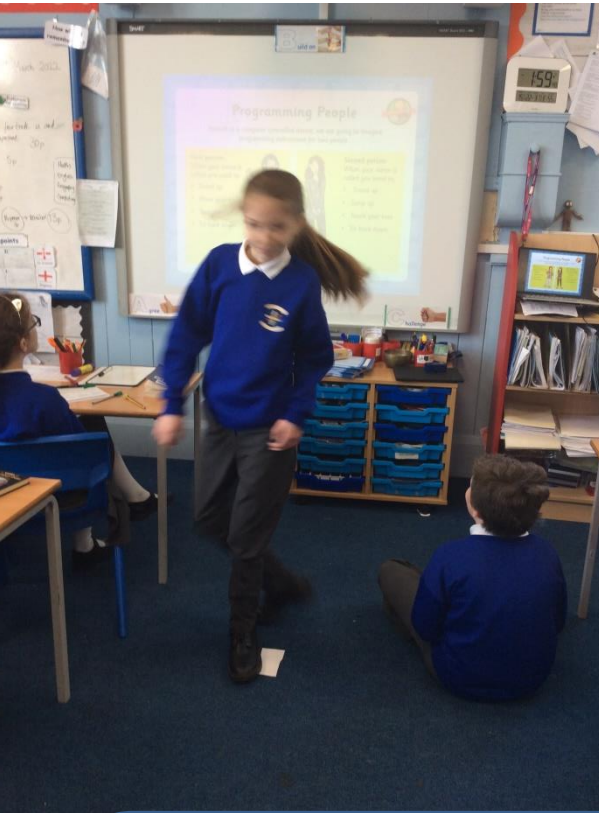


This week we added a new box into our flowchart – the decision box. From this box we then had two possible outputs depending on the answer to the question in the box. We used a mimic to program a lighthouse and then as a challenge, a greenhouse.



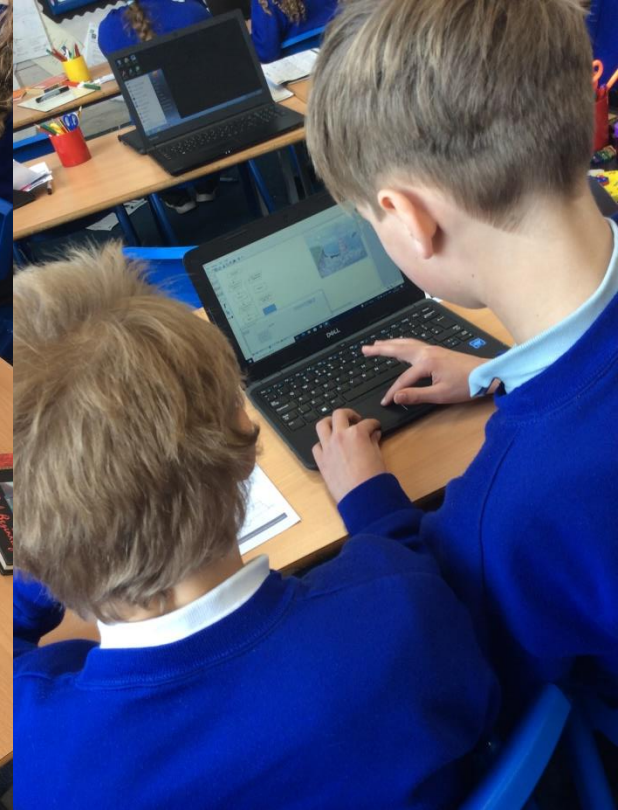
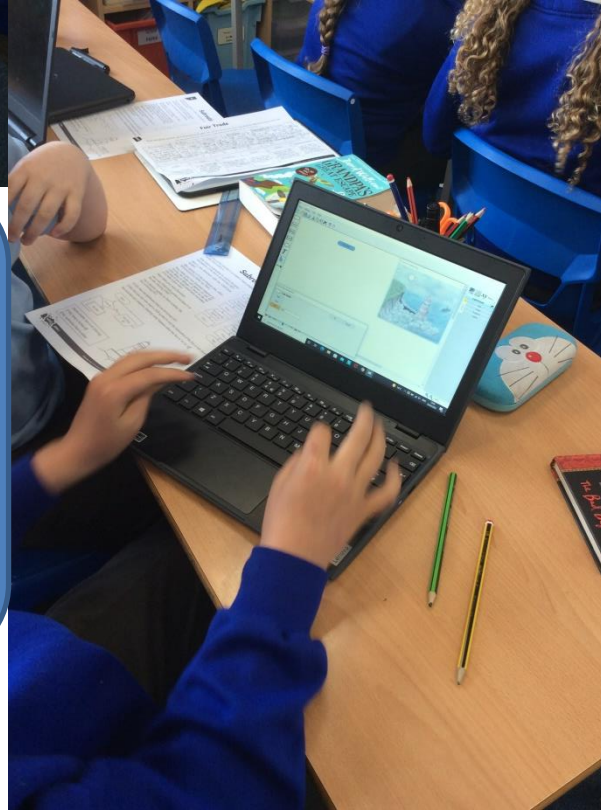
The decision box is a rhombus. The question must have a yes or no answer.





In this lesson we learnt about subroutines. We tried it first with people and then added it into our mimic.

A subroutine is when if something is happening, this should also happen.

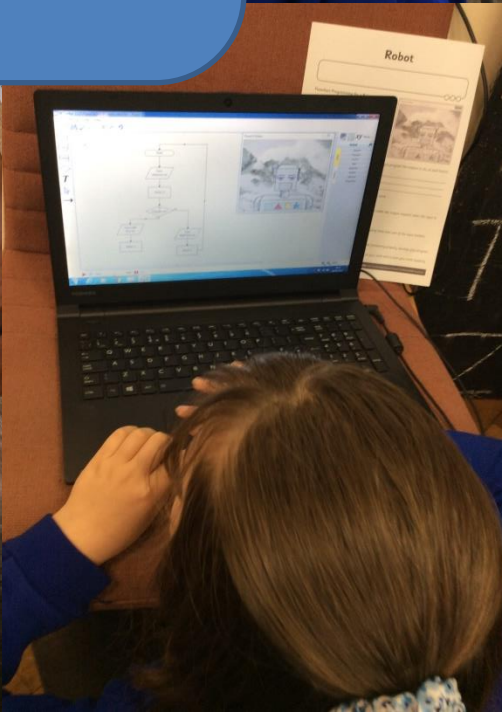
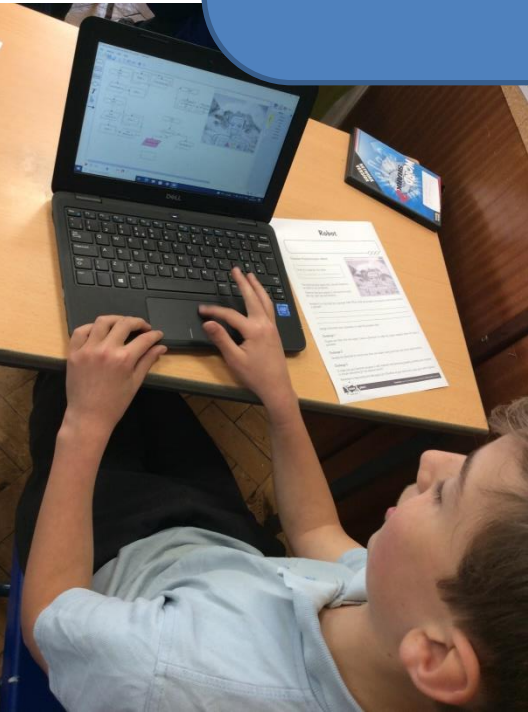




For our final lesson we used a new mimic about a robot to program in our own way and show off the skills we had learnt.



We had to think hard about how to use the decision box.





What I have learnt before:

To use Blockly

To program Beebots

To use repeating loops

Forever facts

Traffic lights, central heating on a timer and electric kettles are examples of computer controlled systems

Flowcharts as algorithms can be used to control devices

A flowchart can be designed to call a subroutine

Skills

To create a program to control a simple sequence

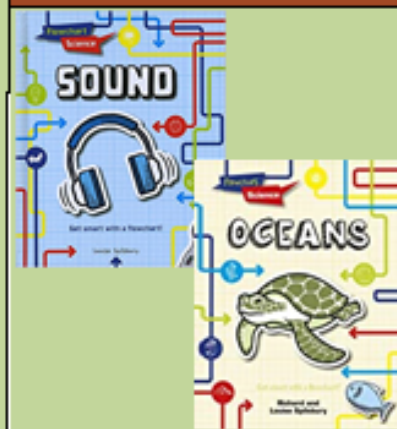
To create flowcharts for multiple inputs and outputs

To program inputs and outputs

To use decisions and subroutines

Cultural Capital: The real life knowledge that links is: Knowing where flowcharts are used in real life. The jobs it can be used in are: entertainment, engineering, physical sciences

Exciting Books



Our Endpoint

To design, write and debug my own flowchart program for a given task

Subject Specific Vocabulary

flowchart	A diagram that shows a process, system or computer <u>algorithm</u>
algorithm	A set of instructions for a computer, split into little steps
output	Information that comes out from a computer
input	Data provided to a computer
simulation	Using computers to imitate real-world scenarios
control	The ability to run something on a computer
subroutine	A sequence of program instructions that perform a specific task
symbol	An object that stands for something else
process	A series of actions that are carried out to achieve a particular result
decision	Making a choice