

SCRATCH



Lesson 6 – Maze Games

Starter

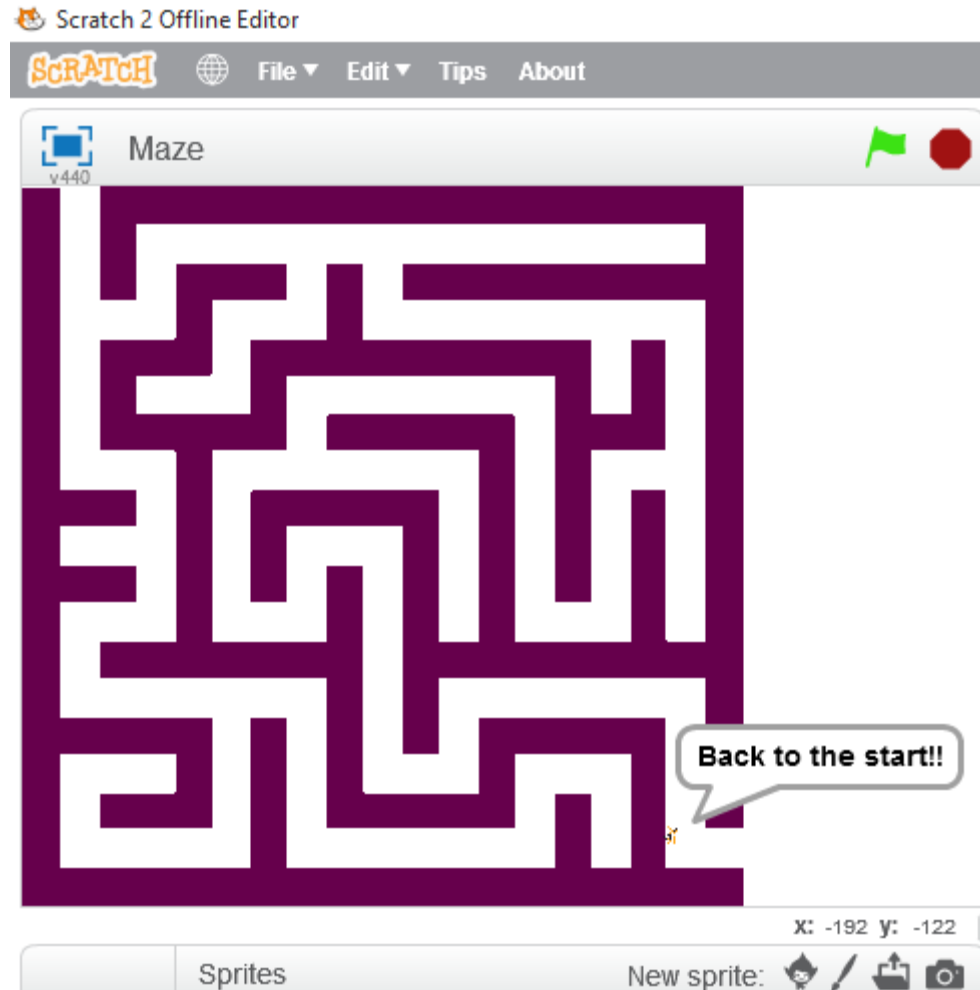
- **A practical maze?!?!**
- *STARTER - One student is blindfolded the rest form a maze. Another person has to direct the blind-folded student through the maze by giving them verbal instructions.*
- *Then repeat with one student 'dragging' a student through the maze – the leader is representative of the mouse dragging the Sprite.*

In Today's Lesson you will

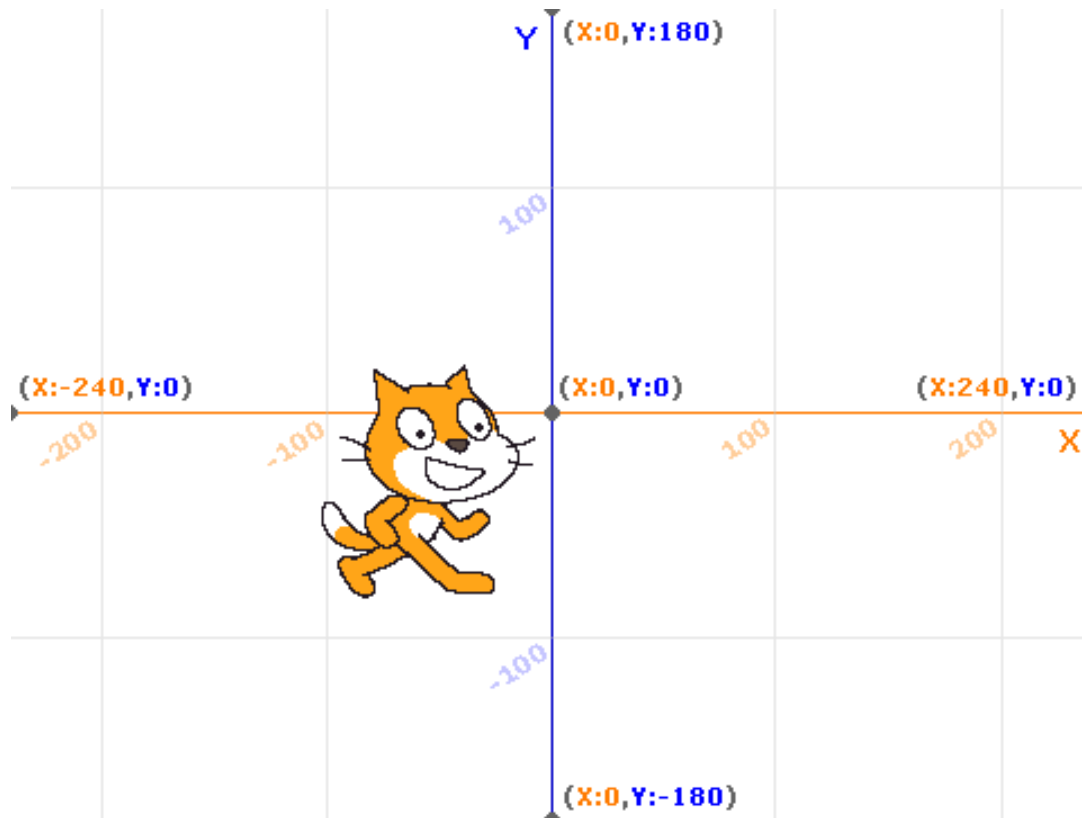


- Produce a simple *Maze Game*
- Learn how to make a Sprite follow a mouse
- Learn how to make a Sprite 'sense a colour'
- Learn how to move a Sprite to a specific coordinate

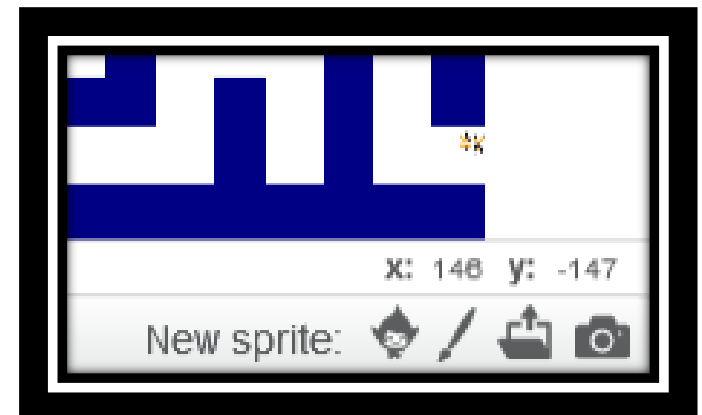
Let's have a look at the completed product



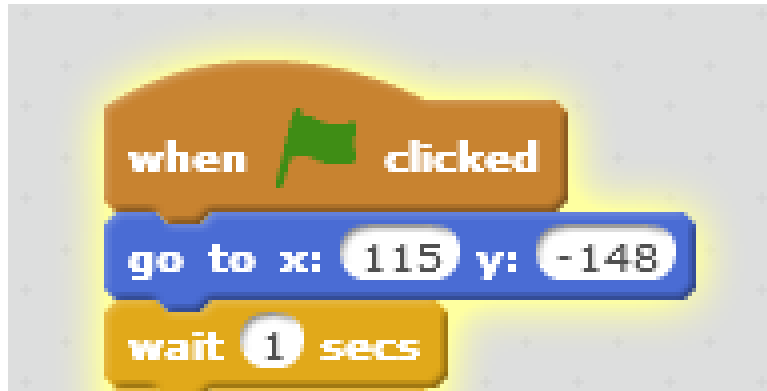
Set the Sprite to jump to the start of the maze



- When you hover over a position with the mouse – you can read and record the coordinates

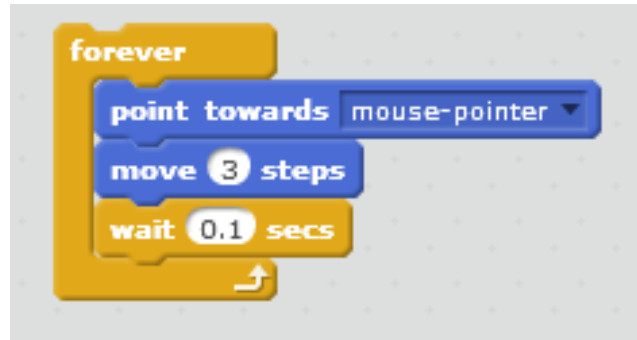


Set the Sprite to jump to the start of the maze



- What do you think these Scripts do?
- Why have we put in a one second wait?

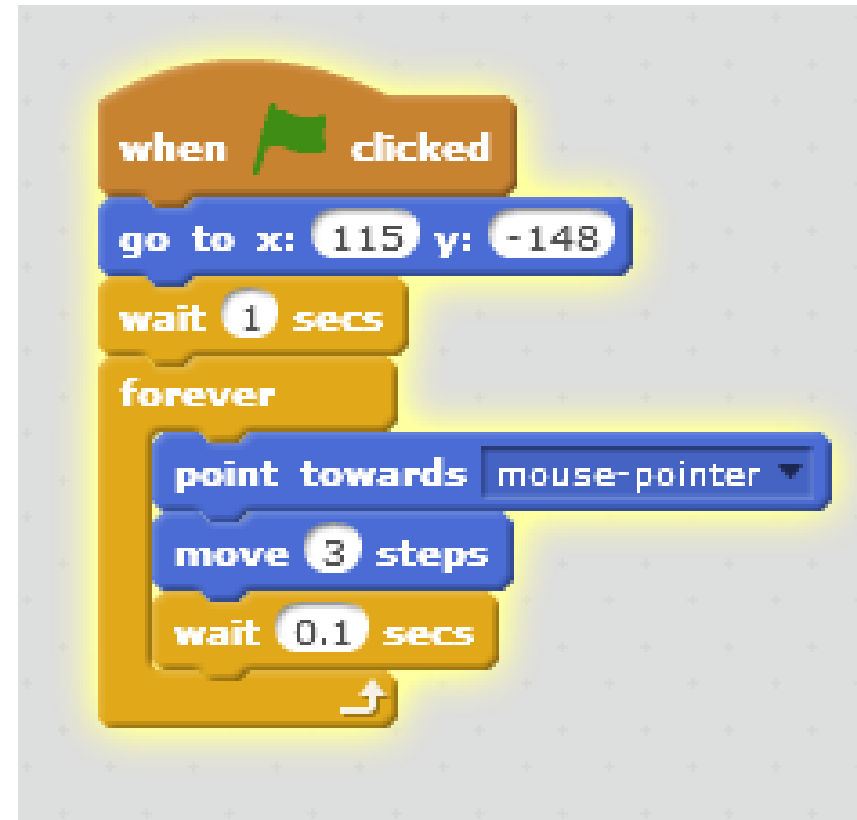
Setting the Sprite to follow the mouse



```
forever
  point towards mouse-pointer
  move 3 steps
  wait 0.1 secs
```

- What do you think this code does?
- Why have we put in the wait command?

Code Combined



```
when clicked
  go to x: 115 y: -148
  wait 1 secs
  forever
    point towards mouse-pointer
    move 3 steps
    wait 0.1 secs
```

If the Sprite hits the wall



- What do you think these Scripts do?
- *We can choose the colour in this IF THEN loop, by clicking on the coloured square and then with the Colour Dropper clicking on a different colour of the background*

The Combined Code



```
when green flag clicked
  go to x: 115 y: -148
  wait 1 secs
  forever
    point towards mouse-pointer
    move 3 steps
    wait 0.1 secs
    if touching color purple ? then
      play sound meow
      say Back to the start!! for 2 secs
      go to x: 115 y: -148
```

The image shows a Scratch script starting with a 'when green flag clicked' event block. It then moves the sprite to coordinates (115, -148) and waits for 1 second. A 'forever' loop follows, containing: 'point towards mouse-pointer', 'move 3 steps', 'wait 0.1 secs', and an 'if touching color purple ? then' block. The 'if' block contains 'play sound meow', 'say Back to the start!! for 2 secs', and 'go to x: 115 y: -148'. The script ends with a return arrow block.

Can you explain it
to your neighbour?

Activity

- Create your maze using the help sheet provided
- **Extensions**
 - Can you control the Sprite also using keyboard?
 - Can you use a Loop and another costume to make it appear as if your Sprite is walking through the maze?

Plenary



- We are going to extend these games next week
- What ideas do you have for making these games more fun and challenging?