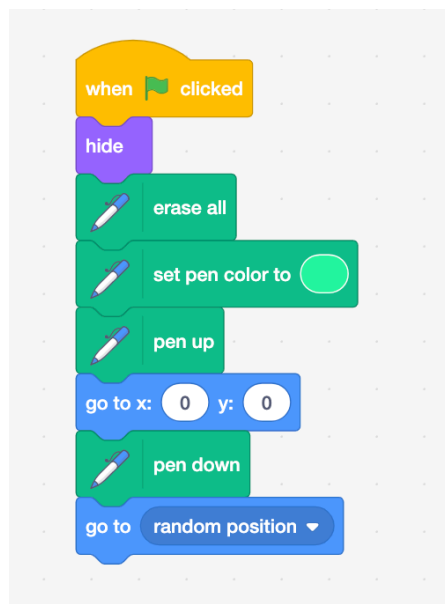<u>Mentor Notes for Scratch Pen Activities</u>

Make sure the Pen extension is installed first! Also if using the desktop version of Scratch, watch out for it being Scratch 2 rather than Scratch 3.
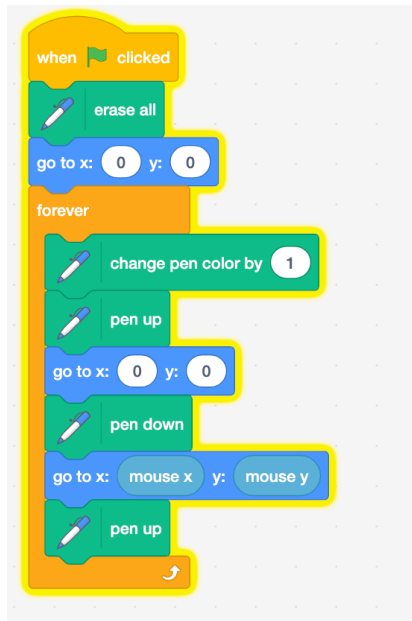
Playing with the Pen

Suggest starting with something like this and then getting them to play with the different pen functions, changing the colour and size and playing with moving to different coordinates or random positions and making more than one line.

Might be fun to get them to change the backdrop to black or another colour as looks more fun? The 'stars' backdrop in the library is a good one or can create a plain black one with the editor easily by just making a rectangle that fills the backdrop.

Adding a forever loop and randomness

This might be a good time to replace the cat sprite with a dot (or can keep hiding it). Then try gradually adding a forever loop, playing with the colours and adding some randomness.
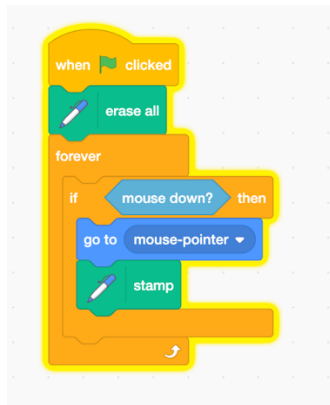
```
when ⚑ clicked
erase all
go to x: 0 y: 0
forever
    change pen color by 1
    pen up
    go to x: 0 y: 0
    pen down
    go to x: mouse x y: mouse y
    pen up
```

Stamping a sprite

Get them to replace the sprite with a shape e.g. a circle or ellipse.

```
when ⚑ clicked
erase all
pen up
forever
    go to random position ▾
    stamp
```
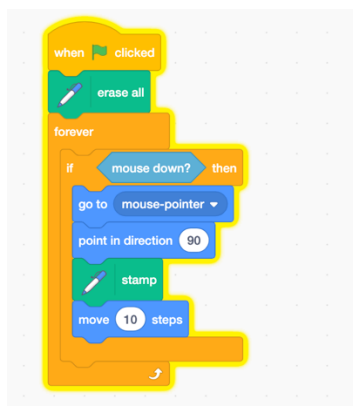
Get them to play around with this – how about changing the colour effect or the sprite each time? Or making it stop when the mouse is clicked? What happens if they leave out the pen up block?
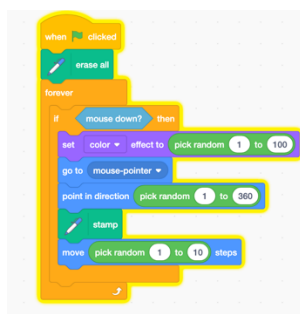
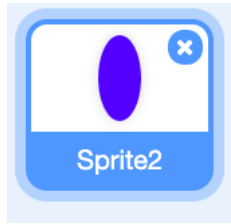## Using stamps to draw patterns with the mouse

Then try this

Then try changing the direction and number of step to be random and changing the colour.

Rotating sprites

Get them to create an oval sprite.

Then play with loops and rotating it. They can play with changing the numbers and also with different sprites. What if they add a circle on top of the ellipse? Can they make lots of these appear on the screen? What about making them different colours randomly?