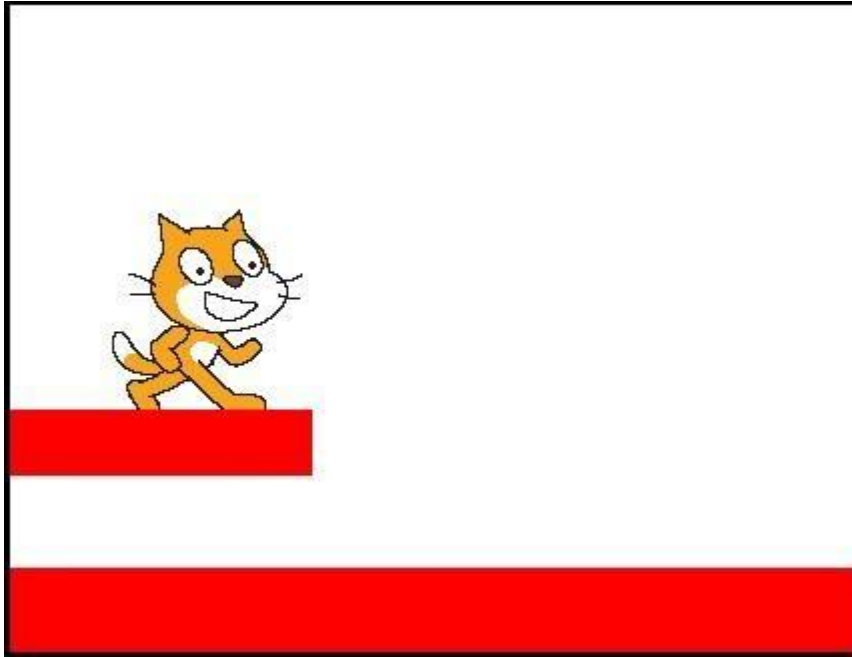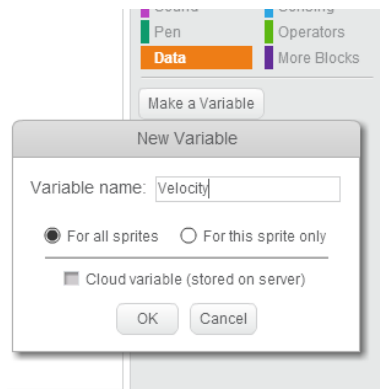# 9

GRAVITY CAT

This is a very simple exercise that introduces gravity.

1. To start, create a variable called 'Velocity', which we will use in a program to create gravity.

2. Now click on **'Create new Sprite'** and create a new Sprite that is simply a rectangle of solid colour. Choose whatever colour you like. Enlarge this sprite so it fills the bottom of your screen. This will act as the ground in your game.
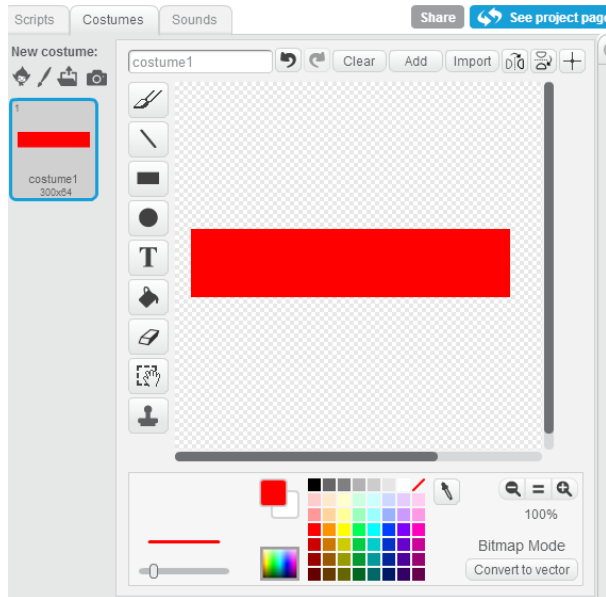
3. Now give the cat sprite the script below. What this script does is it makes the cat jump every time you press the 'up' arrow by increasing the Velocity variable by 15. This will only happen when the cat is touching a particular colour, in this case the colour will be the colour of the ground Sprite you just crated. Then by setting the Velocity value to -1 and changing the Y value to be equal to the Velocity value, this will act like gravity and make the cat fall back down to the ground.

The final two **'If'** blocks allow the cat to move backwards and forwards, creating movement.

4. Next we add platforms for the cat to jump on. Create a new sprite that is just a solid rectangle of the same colour as the ground in your game. Give this new Sprite the script below. This script makes the platform move from right to left on your screen. When it reaches the left hand side of the screen, it will disappear and return at the right hand side of the screen. Every time it returns, it will return at a different height. This is why we use the **'Pick Random'** operator – it will always pick a different random area for the platform to return.
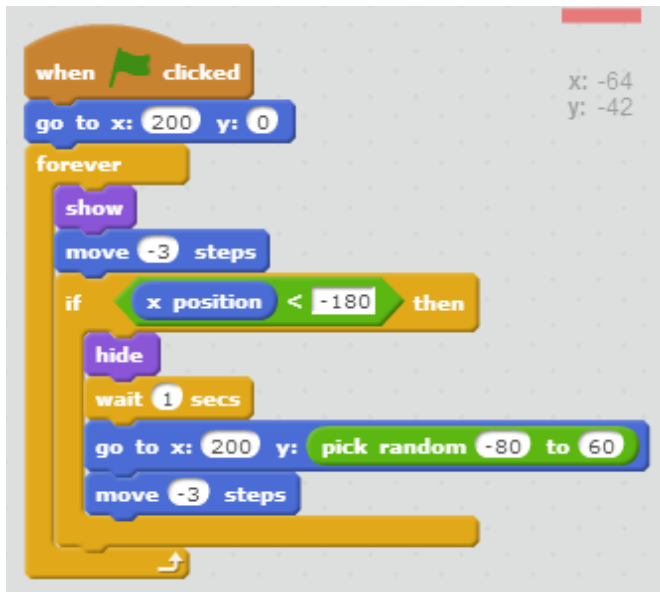
Now you are finished! The cat will now jump up and fall back down just like in real life. Try adding new things to make your game a bit more exciting!