

Activity 1: Scratch Programming a sprite

In this activity you will build a script for an animation of a bat. First you will make the bat move between two points on the screen, then you will make the bat talk and finally you will add a screaming sound effect!

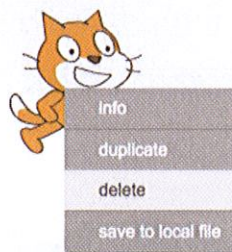
Use Scratch at www.scratch.mit.edu. Click **Create** to start!



1

Start by right-clicking on the cat 'sprite'. Click **delete** to remove the cat sprite (he is not needed for this animation).

Scratch has a whole library of different characters (called sprites) to choose from.

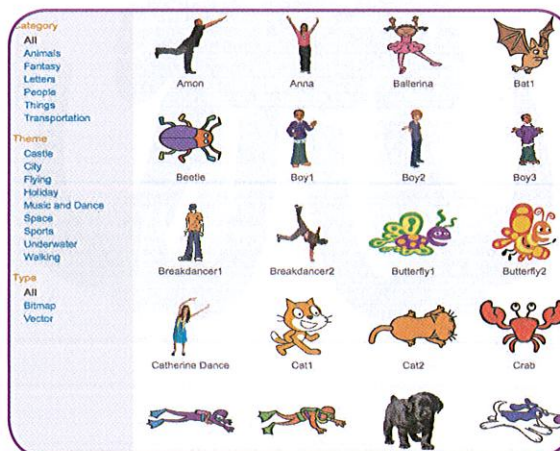


Sprites

New sprite:

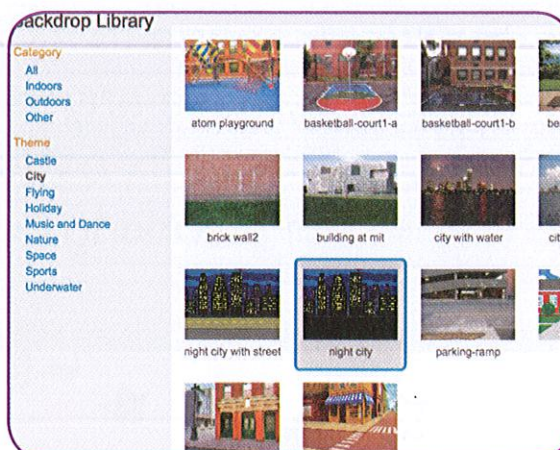
2

Now let's choose a sprite to animate. Click on the **Choose sprite from library** icon. Click on **Bat1** to select it and then click on **OK**. Bat1 should now be in your *Sprites* box.



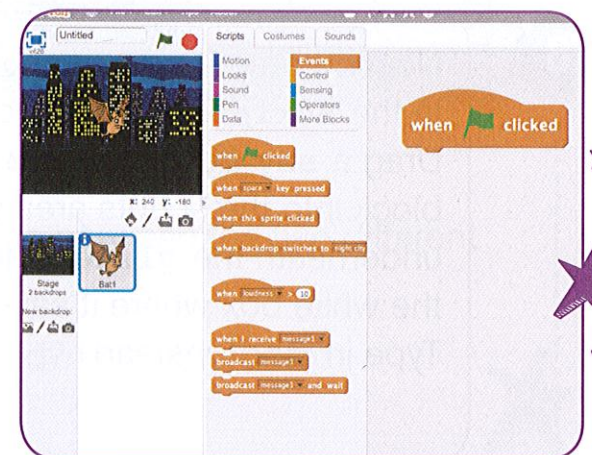
3

Click on the **Choose backdrop from library** icon in the bottom left corner of the screen to bring up the *Backdrop Library*. Click on **City** in the *Theme* menu on the left. Now click on **night city** to select it and then click on **OK**.



4

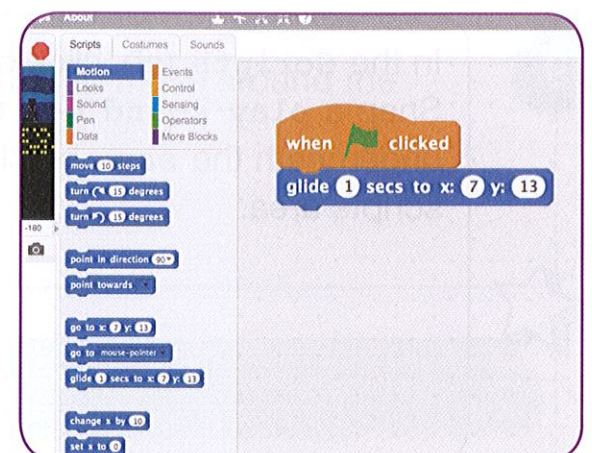
In the *Sprites* box, click on the **Bat1** sprite. Your sprite will appear in the grey scripts area on the right. Now click on the **Scripts** tab at the top. We will build a sequence of commands for the bat called a program. Click on **Events**. Drag the **when clicked** block into the scripts area.



5

In the **Scripts** tab, click on **Motion**. Drag a **glide 1 secs to x: ... y: ...** block into the scripts area and place it underneath the **when clicked** block so they 'snap' together.

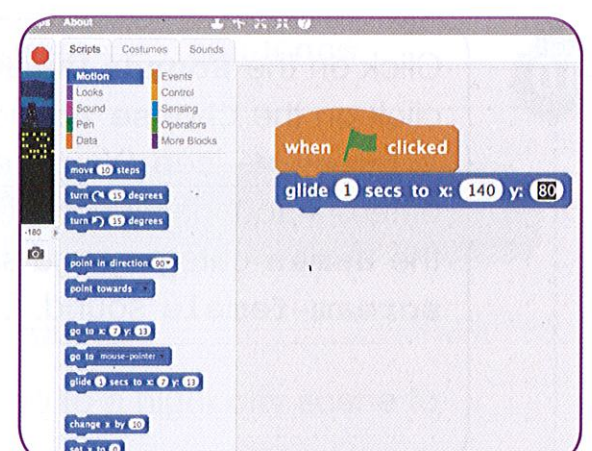
The sprite will follow the commands in the sequence that you order the blocks in.



6

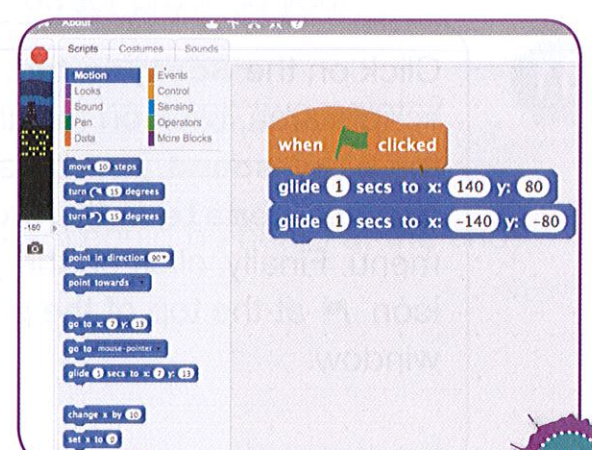
Click in the white **x** box and type in **140**. In the **y** box, type **80**.

These numbers show the position that the bat will glide to. The x-number shows the horizontal position and the y-number is the vertical position. These are called coordinates.



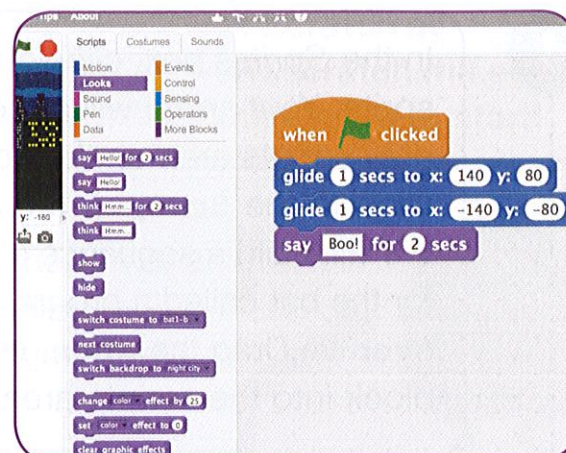
7

Drag another **glide...** block into the scripts area. Snap it underneath the first **glide...** block. Click in the white **x** box and type in **-140**. In the **y** box, type **-80**. Click on the **when clicked** block to preview the bat moving between the two points.



8

Now it's time for some sound effects. In the **Scripts** tab, click on **Looks**. Drag a **say Hello! for 2 secs** block into the scripts area and snap it underneath the **glide...** blocks. Click the white box where it says *Hello!*. Type in **Boo!** instead.



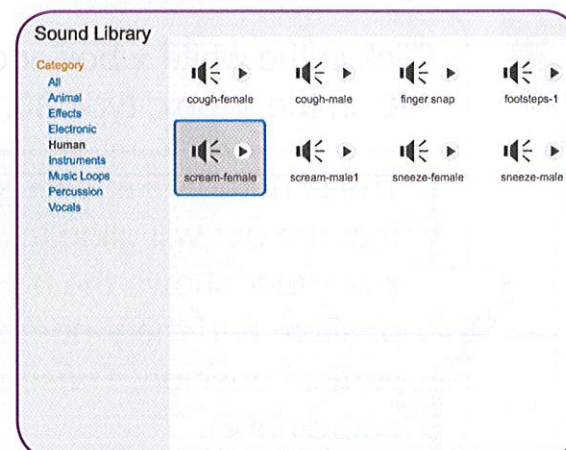
9

In the **Scripts** tab, click on **Sound**. Snap a **play sound pop** block underneath the **say...** block in the scripts area.



10

Click on the **Sounds** tab and then click on the **Choose sound from library** icon. (You can choose different sounds as output.) Click on the **Human** category and select the **scream-female** sound. Click on **OK**.




11

Click on the **Scripts** tab. In the scripts area, click on the arrow in the **play sound pop** block. Choose **scream-female** in the drop-down menu. Finally, click on the green flag icon at the top of the preview window.



Now try this ...

- Can you change what the bat says in the speech bubble?
 - Can you change how quickly the bat moves between the two different places on screen?
 - Can you change the sound effect at the end? Can you record your own?
 - Can you add some more **glide...** blocks so the bat moves between four different points instead of two?
-  Write a sequence of commands for a partner to move around the classroom as if they were a sprite.

Key words

Can you explain to a partner what these words mean?

command **script** **sprite** **program** **sequence**

How did you do?

Think about what you did in this activity. Did you:

- change the sprite to a bat and the backdrop to a night city scene to suit your animation?
- sequence the blocks in your script in the correct order so your animation worked?
- follow the steps to program the sprite to move between two points?
- change what the bat said by adjusting the **say...** block?
- change the **play sound...** block so a scream could be heard at the end?