# Activity 4: Scratch
Using time to sequence events

You can program more than one sprite within an animation in Scratch. Use the steps below to animate a conversation between a shark and a starfish.

1 Right-click on the cat and click on **delete** to remove it. Now click on the **Choose sprite from library** icon and then click on **Animals**. Select **Shark** and click **OK**. Go back to the library and choose **Starfish**. Click **OK**.

> We need two sprites so they can talk to each other.
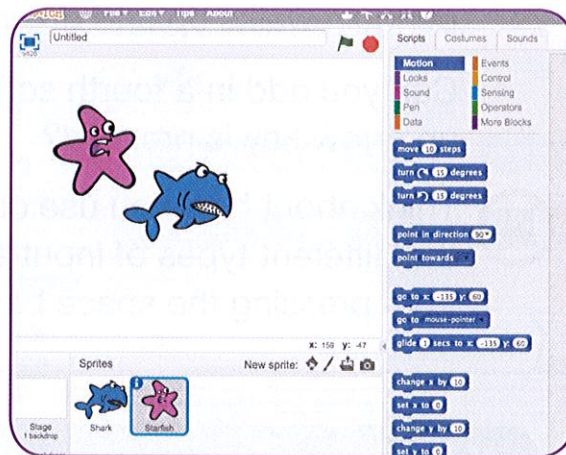
2 Click on the **Choose backdrop from library** icon and click on the **Nature** theme. Select **underwater3** and then click **OK**.
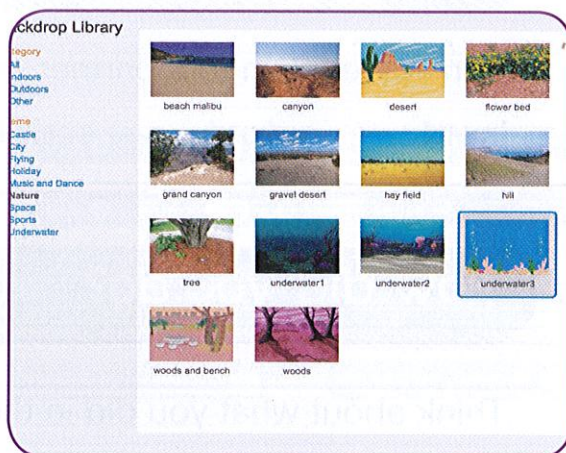
3 Select the starfish sprite in the *Sprites* box and then click on the **Scripts** tab. Click on **Events** and drag a **when ⚑ clicked** block into the scripts area. Now click on **Motion** and snap a **glide...** block underneath. In the **x** box, type **180**. In the **y** box, type **0**.
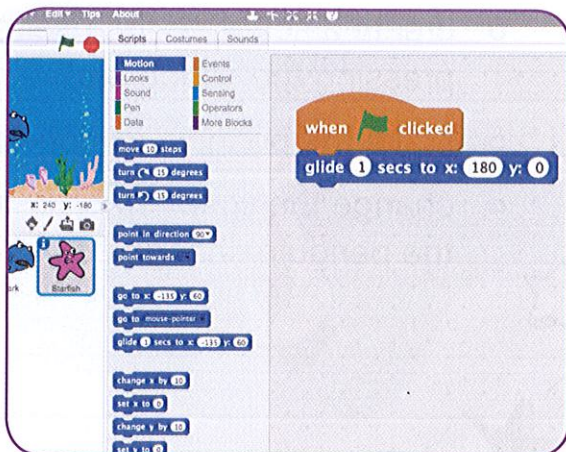
4 Click on **Looks** and drag across a **say Hello! for 2 secs** block. In the **secs** box, type **1**. Now click on **Control** and drag across a **wait 1 secs** block. Go back to **Looks** and snap on another **say...** block. In the first box, type **You look grumpy!**.
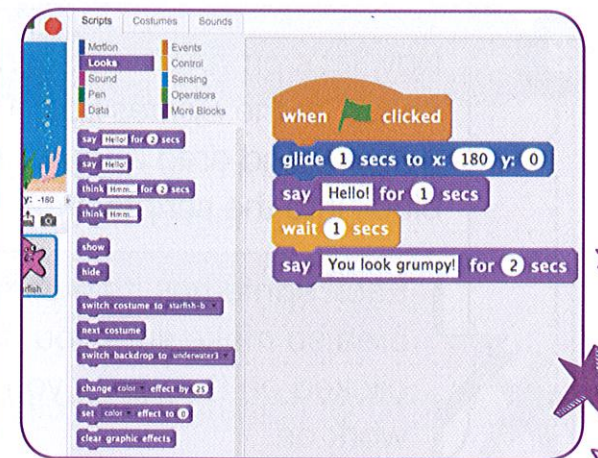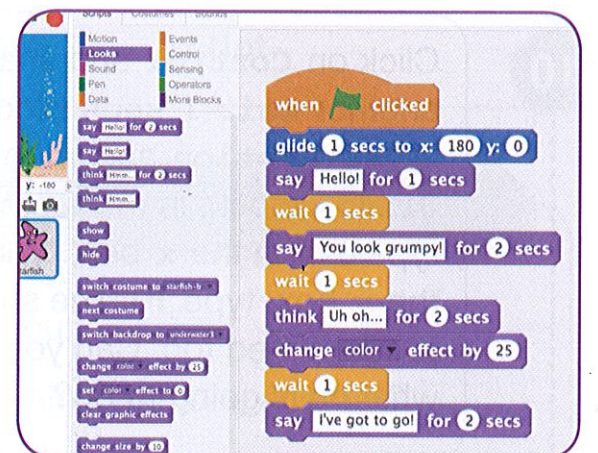
5 Go back to **Control** and drag across another **wait 1 secs** block. Then go back to **Looks** and snap a **think Hmm... for 2 secs** block on. Type **Uh oh...** in the first box. Then snap a **change color effect by 25** block underneath too.
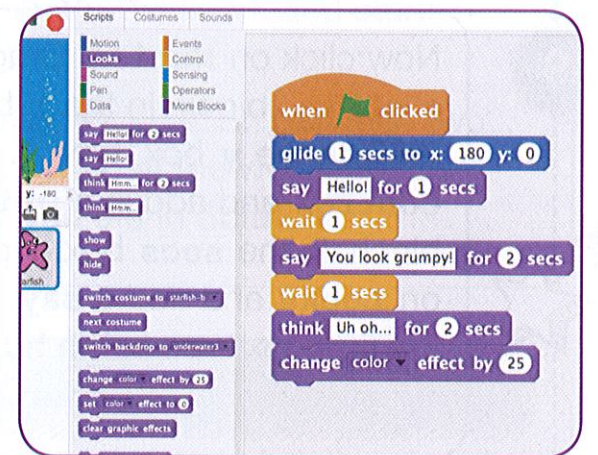
6 Click on **Control** and snap on another **wait 1 secs** block. Then go back to **Looks**. Snap on another **say...** block but this time type in the first box **I've got to go!**.
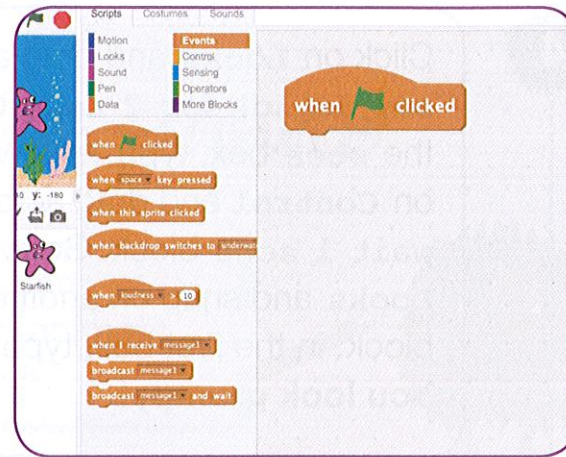
7 The starfish script is almost done! Just click on **Motion** and snap on a **glide...** block. In the **secs** box, type **0.2**. In the **x** box, type **180**. In the **y** box, type **270**. The script for the starfish is now ready. Read over it. What do you think it will do?
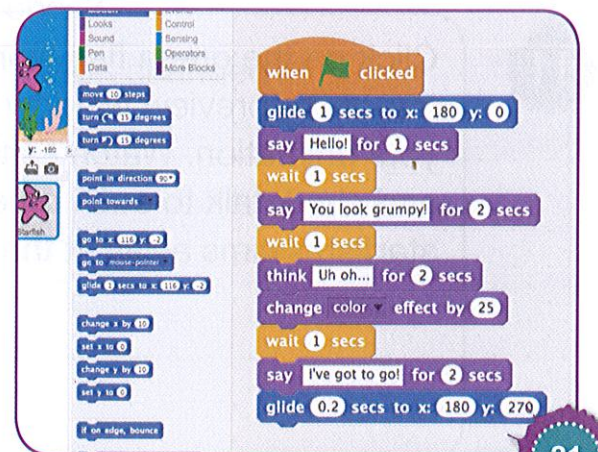
8 Now let's program the shark. Click on **Shark** in the *Sprites* box. Then click on **Events** and drag a **when ⚑ clicked** block into the scripts area.

Each sprite has its own scripts area so make sure you have clicked on the sprite you want to work on.

9 Now click on **Motion**. Drag across a **glide…** block. In the **x** box, type **-180**. In the **y** box, type **0**. Click on **Control** and add in a **wait 1 secs** block. In the **secs** box, type **5**. Click on **Looks** and add a **say…** block. In the first box type in **I'm hungry…**.
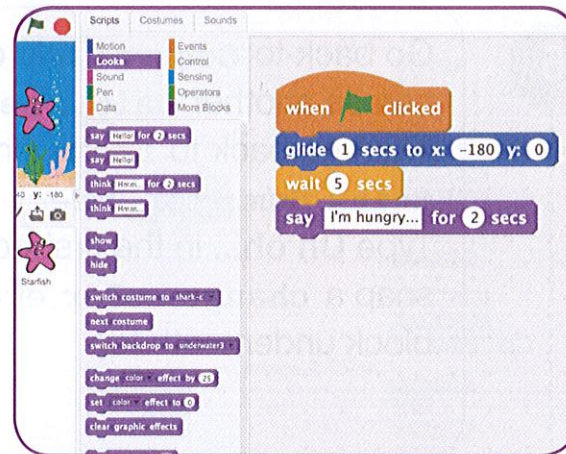
10 Click on **Control** and snap on another **wait 1 secs** block. Finally, click on **Motion** and snap on a **glide…** block. In the **secs** box, type **0.5**. In the **x** box, type **-50**. In the **y** box, type **10**. The shark is now programmed too. Can you predict what he is going to do?
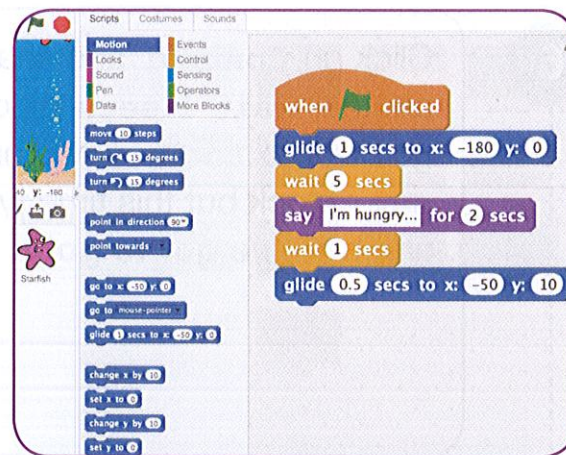
11 Click on the green flag icon ⚑ at the top of the preview window to begin your animation. Watch as the starfish and shark talk to each other and the starfish swims away at the end.
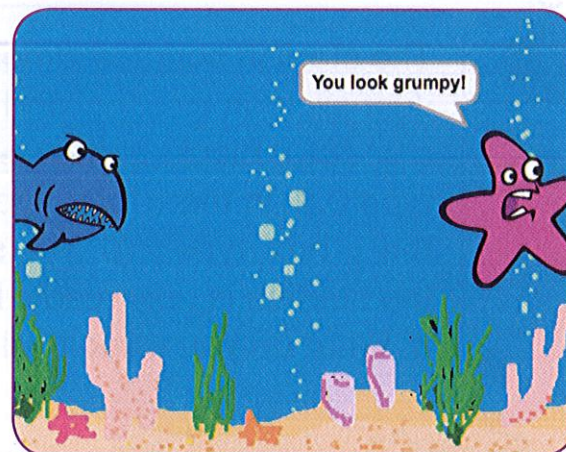
Now try this …

o Can you add some more **say…** and **wait…** blocks and make the conversation between the shark and starfish a bit longer?

o Can you use the **switch costume to…** block to use the other costumes both sprites have?

o Can you change the ending so the shark follows the starfish as he swims away?

o Can you add in a third sprite, perhaps a fish, for the shark and starfish to talk to?

🚫 Can you write down two scripts that code a conversation between two friends? They can be talking about what they did at the weekend. Use the commands **wait…** and **say…** just like you did in Scratch.

Key words

Can you explain to a partner what these words mean?

sequence   **conversation**   **program**   **script**

How did you do?

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

o create an animation with two sprites interacting with one another?

o change the script to make the conversation longer?

o change the script to include costume switches?

o change the script so the ending of the animation changed?

o add in a third sprite?