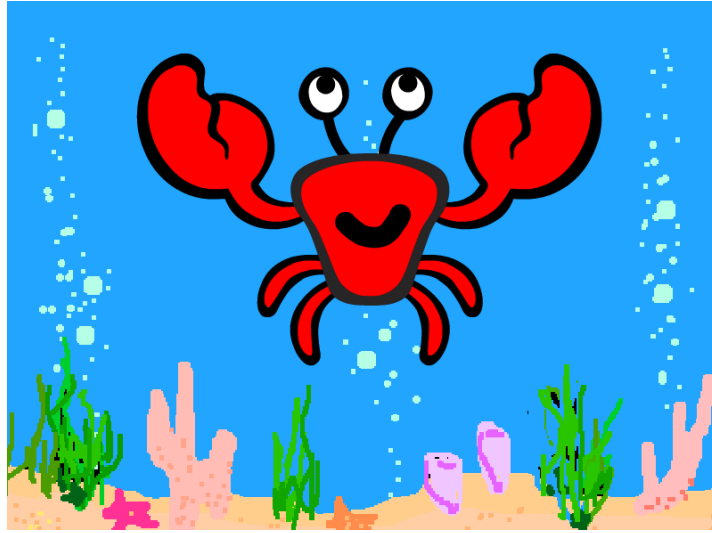


ANIMATE THE CRAB



Project Tutorial

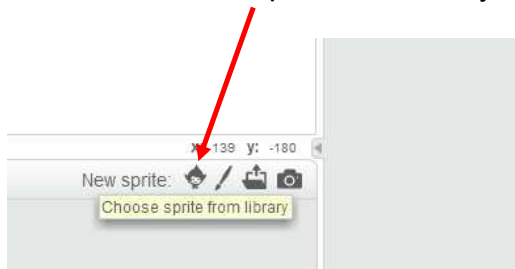
Step 1: Setting the scene

Let's make the crab dance

- Start a new Scratch project, and delete the cat sprite so that your project is empty. You can find the online Scratch editor at jumpto.cc/scratch-new.

From the sprites library, add the crab sprite:

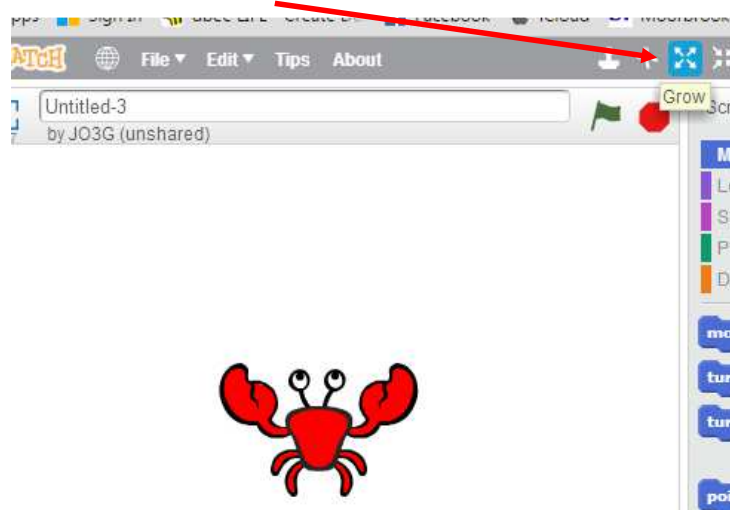
- Click 'Choose sprite from library'



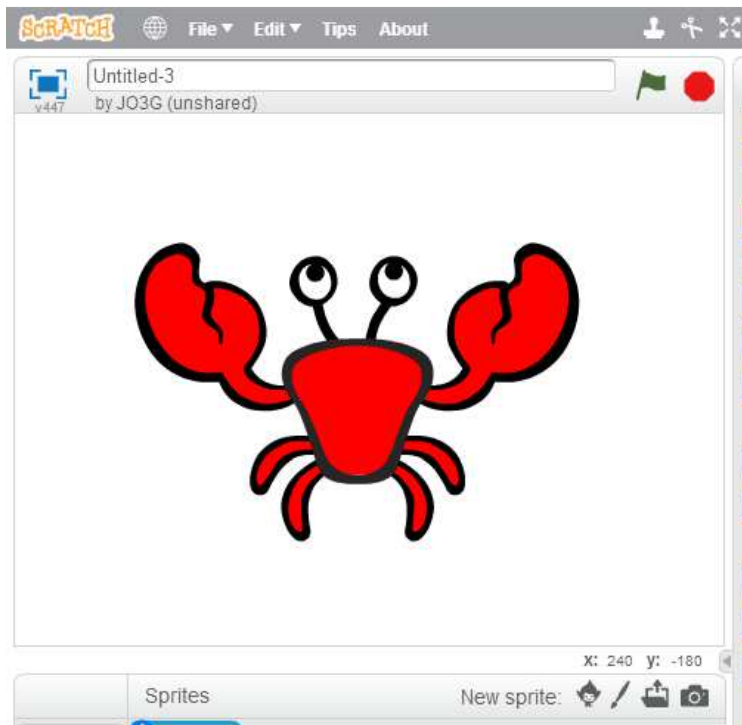
- Select the Animals category – then choose the crab sprite



- Click the 'Grow' button and click on the crab sprite a few times to enlarge it

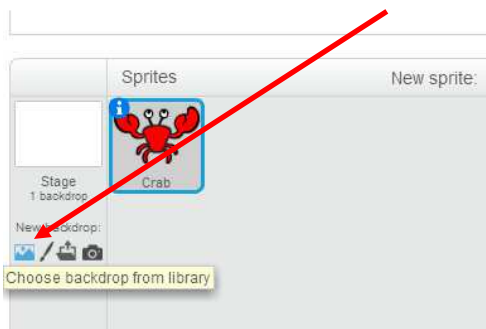


- Your crab sprite should now look something like this:



Now we need to add a backdrop to make the animation more interesting

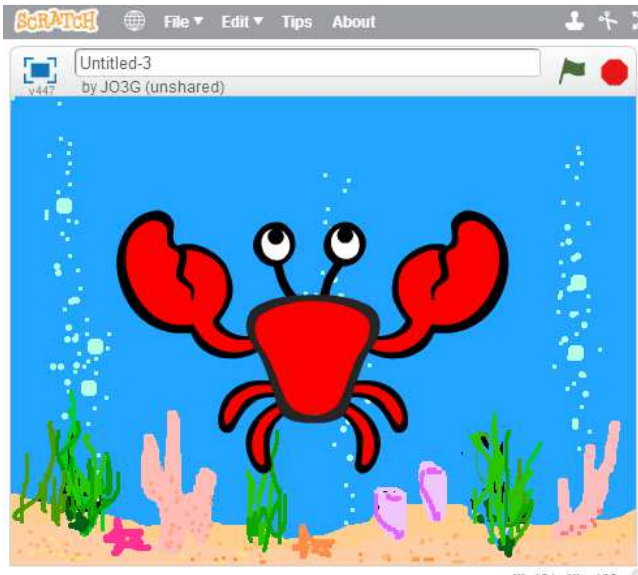
- Click on the 'Choose backdrop from library' button



Select the Nature category – then choose one of the underwater backdrops



- Your stage area should now look something like this:

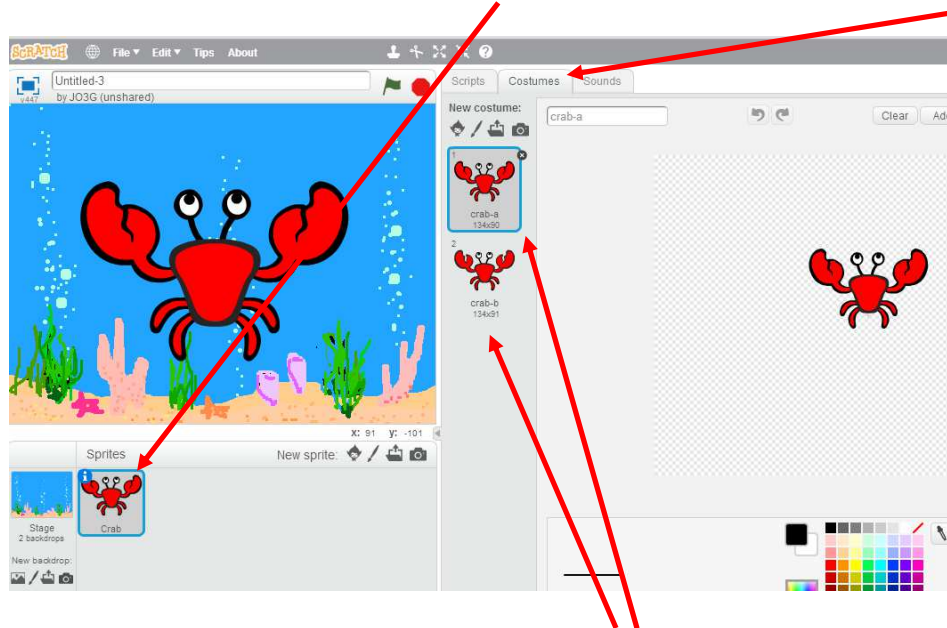


Save your project

Step 2: Using a loop

One way of animating the crab is by changing costumes

- Make sure you have the crab sprite selected, then click on the 'Costumes' tab:



You will notice that the crab sprite has two costumes.

A costume is usually just the same character with slight differences. In this case the crab's nippers are open in the second costume. Let's see how this works:

- Click back onto the 'Scripts' tab and add the following code:



The **repeat** block is used to repeat something lots of times, and is also known as a loop.

- Click the flag to test code.
- To make the crab work his nippers quicker change the **wait** time to less than one second (try 0.5 or even 0.25)

What is happening here is your code is quickly changing between the two costumes to give the impression of movement.

The **forever** block is another loop, but this time one that never ends.

- Change your code as below to see how this works:



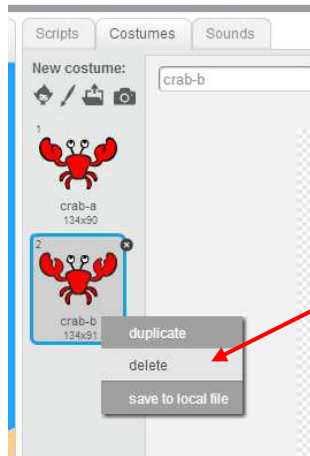
- Click the flag to test your code. You'll have to click the stop button (next to the flag) to end this animation.

Save your project

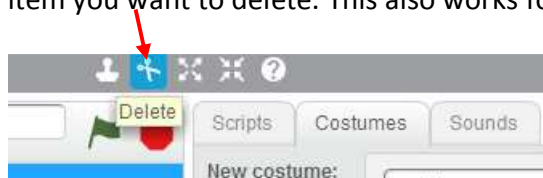
Step 3: Creating new costumes

Let's make some costumes of our own.

- Make sure you have the crab sprite selected, then click on the 'Costumes' tab:
- Delete the 'crab-b' costume by right-clicking and selecting 'delete'.

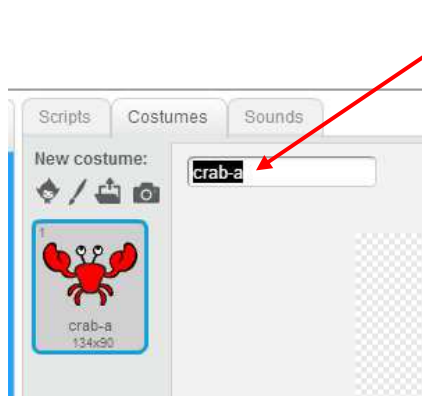


You can also delete by clicking on the 'Delete' button on the top menu, then clicking on the item you want to delete. This also works for sprites and blocks of code.



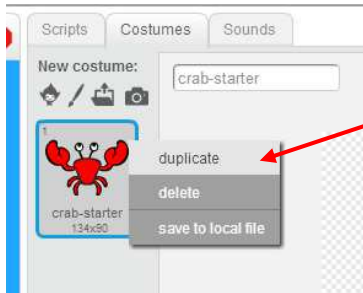
We are now going to make some new costumes:

- Click on the 'crab-a' costume and rename it 'crab-starter'.
- Delete the 'crab-a' in the text box and type the new name in the box.



Make a copy of 'crab-starter' costume

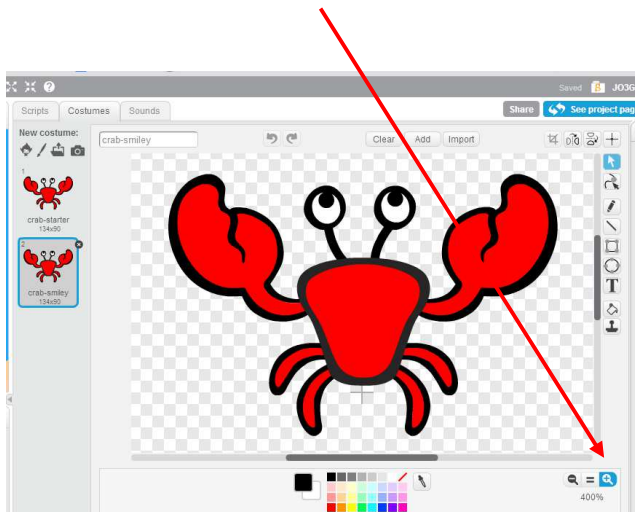
- Right-click the 'crab-starter' costume and select 'Duplicate'



- Rename the new costume 'crab-smiley'

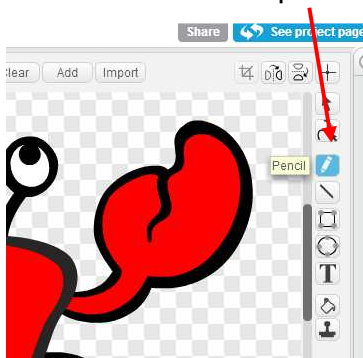
Let's give the crab a smile:

- Use the zoom+ button to make the crab bigger in the drawing window

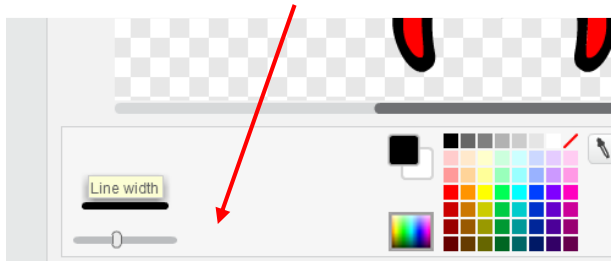


Note – this does not make the crab sprite bigger in the stage area.

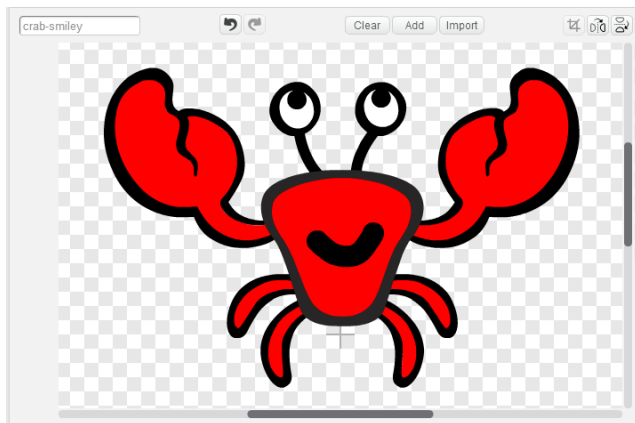
- Click on the 'pencil' button on the drawing toolbar



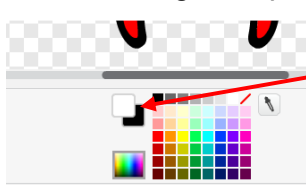
- Use the slider bar to make the line thicker



- Use the 'pencil' tool to draw a smile on your crab. Something like this:



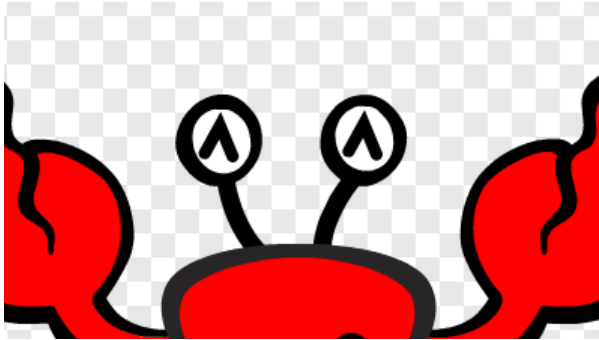
- Duplicate 'crab-smiley' the same way as above
- Rename this new costume 'crab-elated'
- Change the pencil colour to white by clicking here:



- Using the pencil tool, now draw over the pupils in the crab's eyes (you might need to make the pencil a bit thinner, and zoom in closer, to do this)



- Change the pencil back to black and draw upside-down Vs in the eyes.



Create two or three more costumes with different expressions.
Here are some ideas:



Save your project

Step 4: Animating the crab

Let's add some code to get that crab moving!

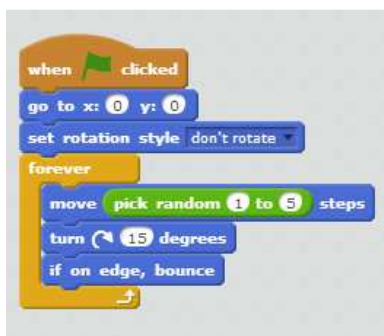
- Click back on the 'Scripts' tab and add the following code to your crab sprite:



- Change the **wait** time back to 1
- Click the flag to test your new code

Now, let's add some more code to move your crab around randomly:

- Add this block of code:

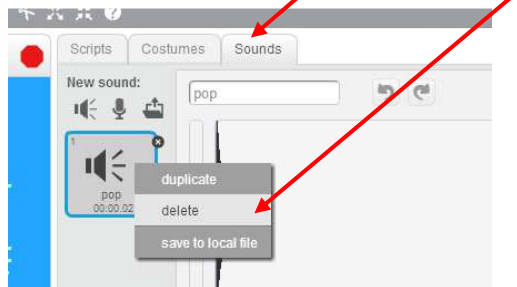


Save your project

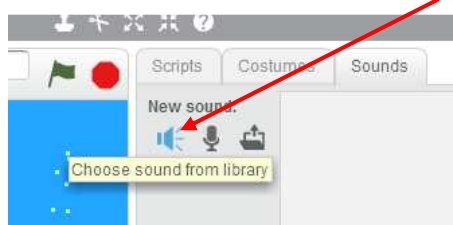
Step 5: Add some music

Finally, if you have sound on your computer, let's add some music

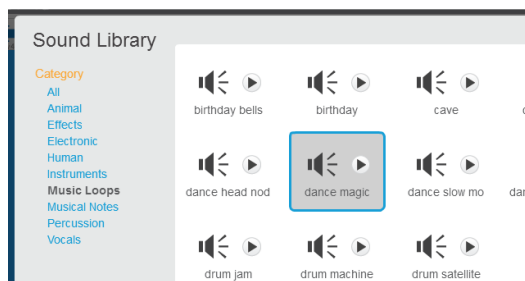
- Click on the 'Sounds' tab and delete any sounds already there



- Click on the 'Choose sound from library button'



The 'Music loops' category is probably best for this project.



- Find a sound you like and click OK
- Now, click back on the 'Scripts' tab and add the following code:



Save your project