

Cast spooky spells

Code your own magic wand.

What you will need:

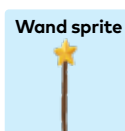
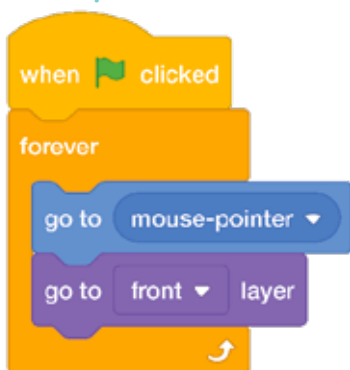
- A computer
- Scratch

How does it work?

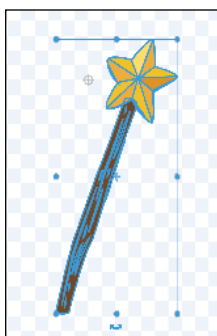
This project uses a free, online coding language called Scratch. This activity teaches you how to broadcast and receive messages, to transform a sprite into a toad (and back again). Take the project further and try shrinking and growing your fairy sprite.



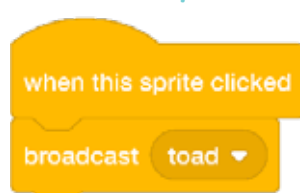
Choose your wand



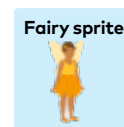
- 1 Go to tinyurl.com/SN-spells to open up the starter project in Scratch.
- 2 Click on the "Choose a Sprite" button and select the wand sprite.
- 3 Build the script above. A script is a stack of coding blocks that makes a set of instructions. You do this by dragging colour-coded blocks, from the list on the left-hand side of the screen, and snapping them together in the central coding area. This script makes the wand follow the mouse pointer.
- 4 Now click on the green flag to test your project. The wand should track the mouse pointer wherever it goes on the stage.
- 5 Click on the wand sprite and then select the Costumes tab (top left-hand side).
- 6 Using the select tool (pointer) click and drag a rectangle around the wand. Select the group tool. Rotate your wand using the arrows underneath the wand, and then reposition it so that the star sits slightly lower and to the right of the central target symbol.



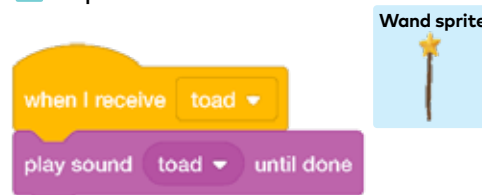
Transform a fairy into a toad



- 1 Click the toad sprite and build the script above. Select New message from the drop-down menu and type "toad".

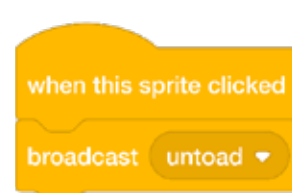


- 2 Now, click the fairy sprite and build the two scripts above.

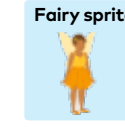


- 3 Click the wand sprite and select the Sounds tab at the top left of the screen. Click on the "Choose a Sound" button and search for "croak". Rename it "toad" and then build the script above.
- 4 Cast a spell by pressing the toad button. The fairy should turn into a toad and croak.

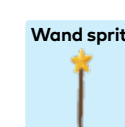
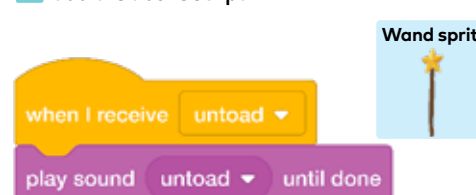
Turn a toad back into a fairy



- 1 Select the untoad sprite and build the script above. Select New message from the drop-down menu and type "untoad".



- 2 Now, select the fairy sprite again, and add the above script.



- 3 Finally, select the wand sprite and go to the Sounds tab. Right-click on the "toad" sound and select duplicate from the drop-down menu. Rename the sound "untoad". Then click the reverse symbol so the sound plays backwards.
- 4 Go back to the Code tab, and add the script above, selecting "untoad" from the drop-down menu.
- 5 Test your magic spells. Press the green flag. By clicking the toad and untoad buttons with your wand, you should be able to transform the fairy into a toad and back again. Remember to say your special magic word!