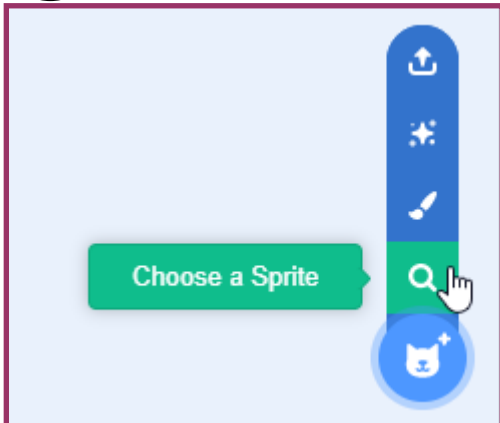


# Creating a Virtual Pet

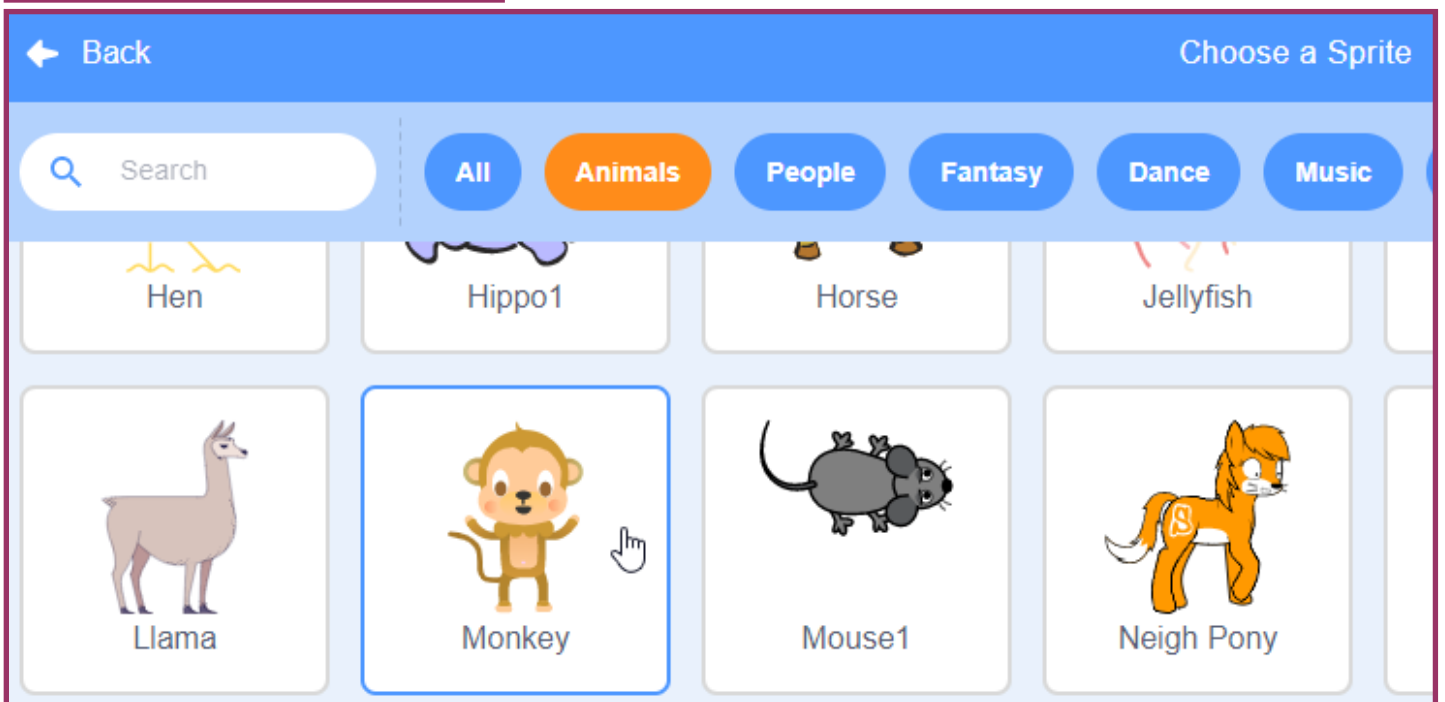
1

Choose your Pet **Sprite**



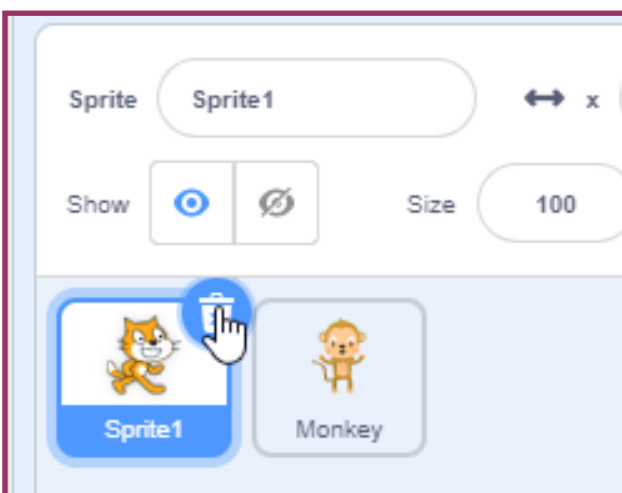
As you go through this guide try to use your own images and coding ideas.

DO NOT simply copy the example. Bonus marks are available if your Pet can play a real tune or song rather than just make a noise!



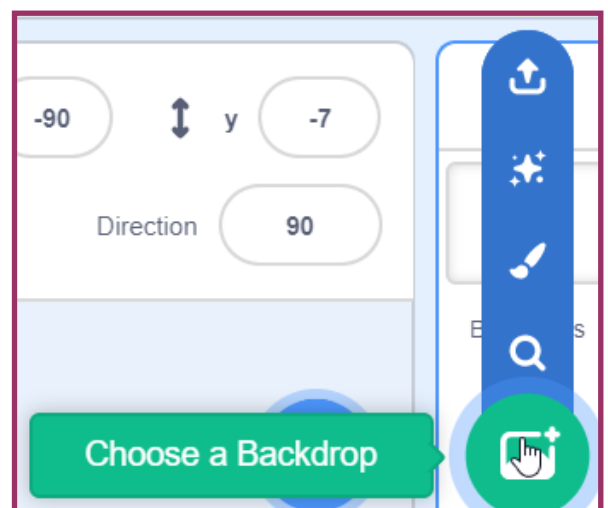
2

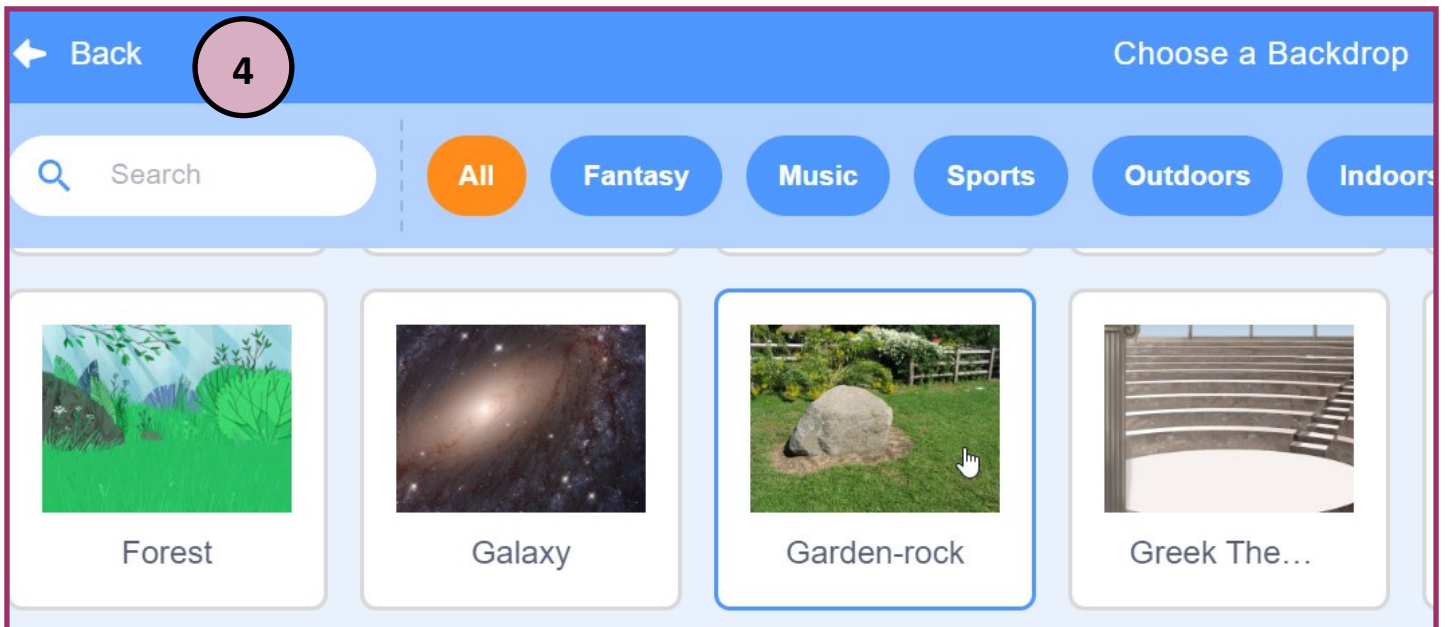
Delete the original Sprite



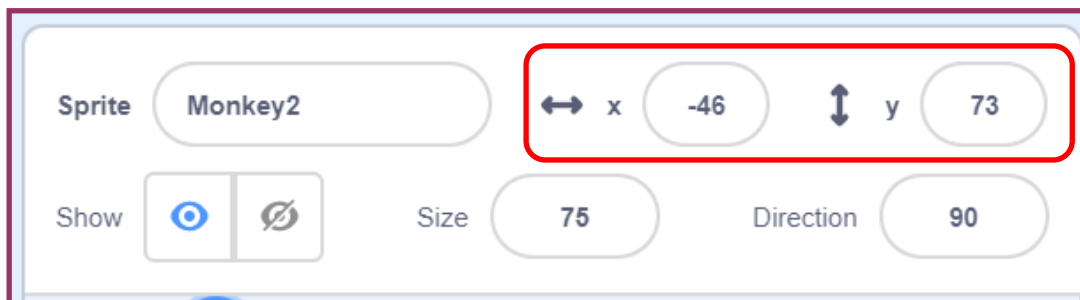
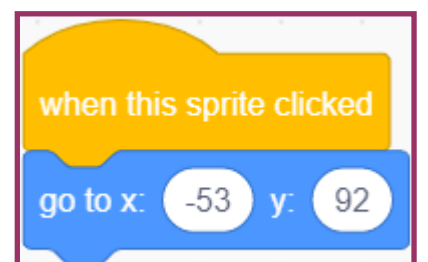
3

Choose a **Backdrop** (the environment where your Pet will live)

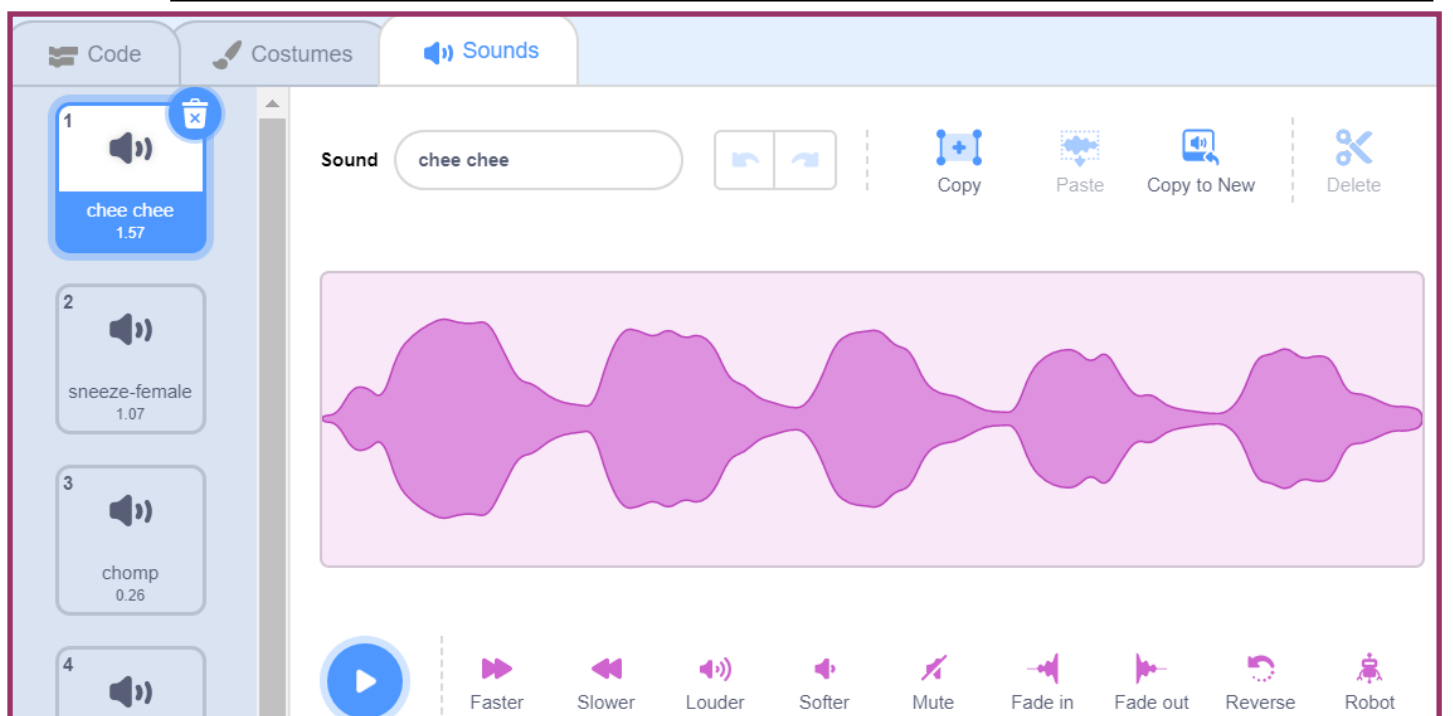




5 Move your Pet on the **Stage** to where you want it to start. Make sure the Pet is still selected and then drag the **Go To Block** into the **Code window** to set that position. (You can check the co-ordinates in the information box below the stage)

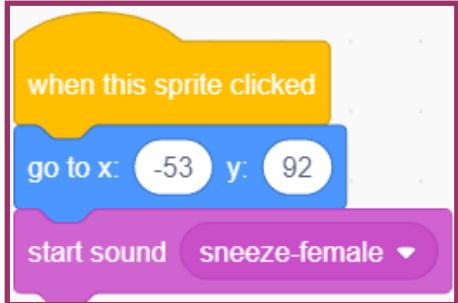


6 Now get your Pet to make a **Sound** when you click on it. Start off by choosing a Sound from the **Sounds Tab**.



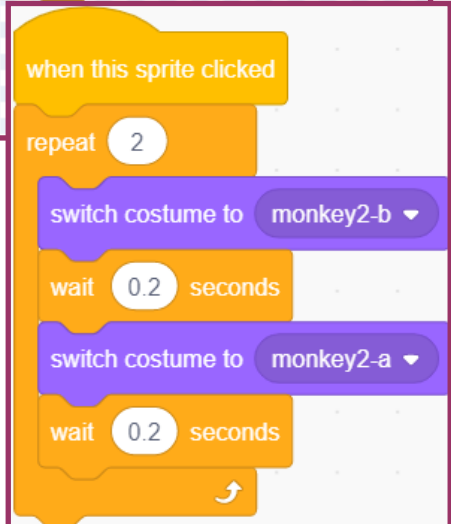
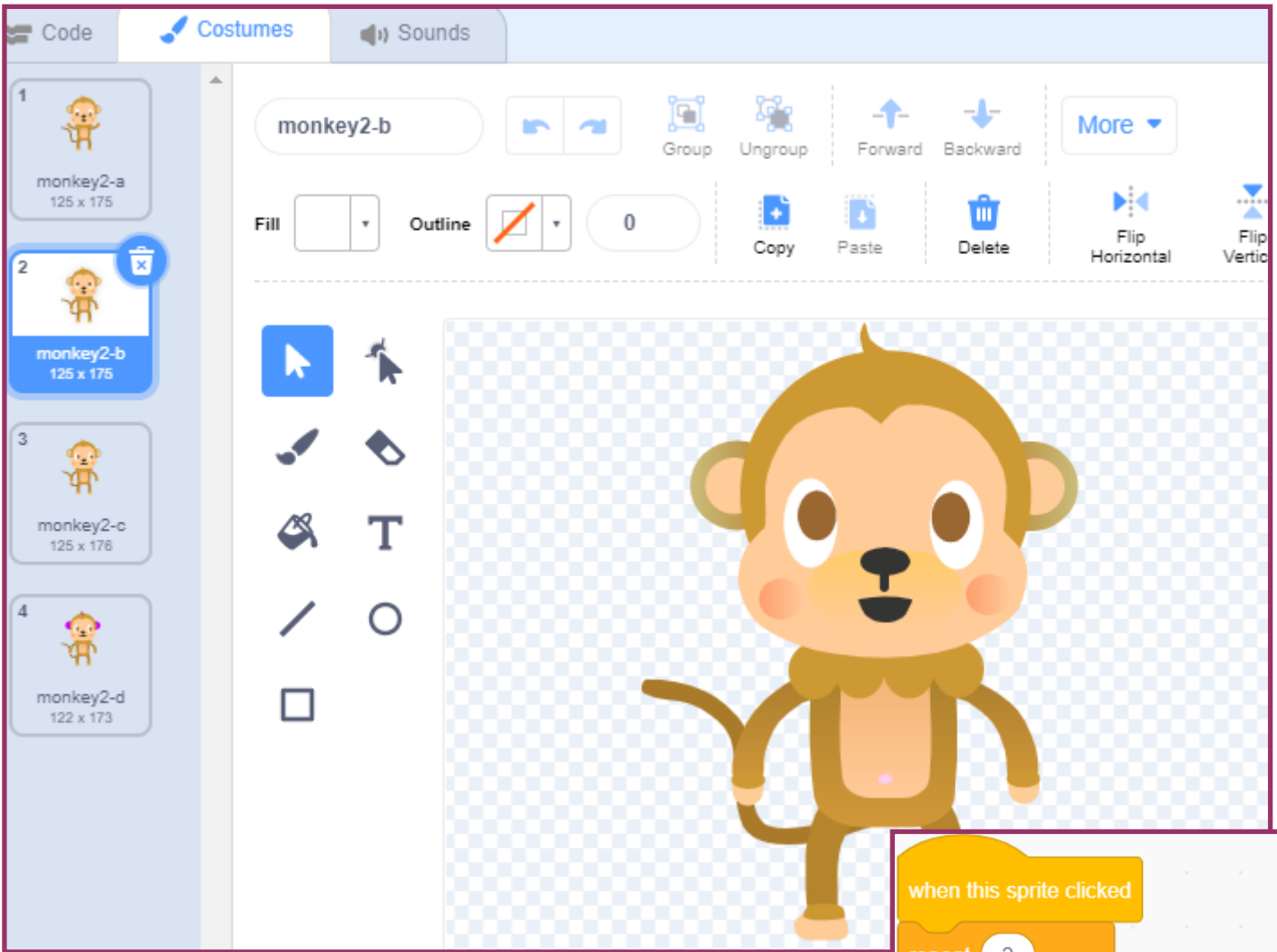
7

Make sure you have the Pet selected (*so you are adding code to the correct Sprite*) and then use the **start sound** block to add your sound. Try clicking on your Pet to check that it makes the sound! The **say** block allows your Pet to speak!



8

If your Pet has more than one **Costume**, you can animate its movement by switching between costumes. You can even create additional costumes yourself by duplicating, renaming and editing an existing costume.



9

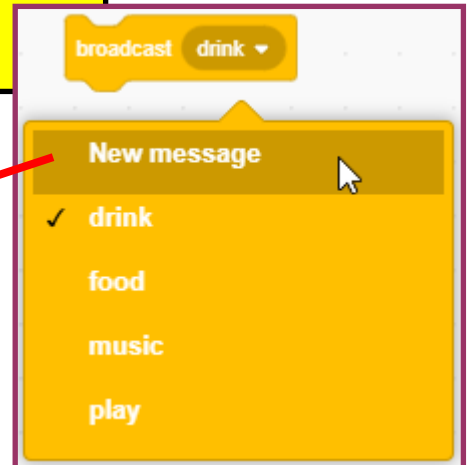
Use the **switch costume to** change costumes.

10

To **feed** your Pet, choose a Food Sprite. When we click on the Food Sprite we want our Pet to move to the food and then make an eating noise. To do that the food Sprite will Broadcast a signal to the Pet to do something. To do that you need to put attach the following code to your Food Sprite. To create an appropriate name e.g. **food**, use the drop down menu on the broadcast block and choose New Message.



```
when this sprite clicked
broadcast food
go to front layer
```

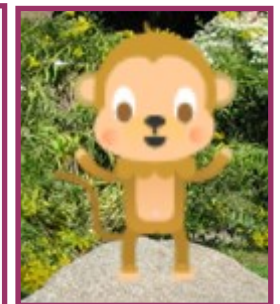


New Message dialog box with 'New message name:' field containing 'food' and 'OK' button.

11

You now need the Pet to **'listen'** for the broadcast and then move to the Food. This code will be attached to the Pet **NOT** the food sprite. **Note:** The **go to front** code attached to the **food sprite** (step 10) means that the food will appear to be in front of the Pet.

```
when I receive food
glide 1 secs to x: -167 y: -118
start sound chomp
wait 0.5 seconds
```



Adding another glide command at the end of the code allows the Pet to move back to its starting point after it has eaten.

```
glide 1 secs to x: -167 y: -118
```

12

We now want the Pet to be able to **play**, for example by jumping on a Trampoline. First find a toy sprite. Then, as you did with Food, **broadcast play**.



```
when this sprite clicked
broadcast play
```

13

You now need to get creative in terms of how your Pet will play. For example if you wanted the Monkey to jump up and down on a Trampoline, you might use code like.

```

when I receive play
  glide 1 secs to x: 134 y: -31
  repeat 4
    change y by 100
    wait 0.3 seconds
    change y by -100
    wait 0.3 seconds
  glide 1 secs to x: -58 y: 96

```

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Playing an instrument? Click on the Drum!



```

when this sprite clicked
  broadcast Drum

```

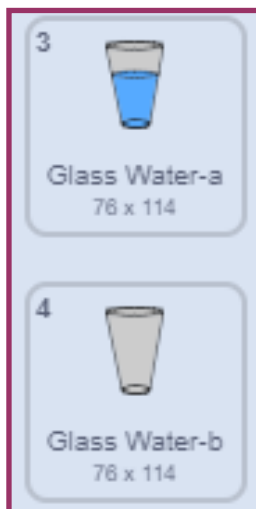
```

when I receive Drum
  glide 1 secs to x: -114 y: -47
  repeat 3
    switch costume to monkey-a
    play sound Drum Roll until done
    switch costume to monkey-b

```

Why not record your own music?

Or get your Pet to **drink** some water! Remember, if you change Costumes you can make it look like the water disappears when it is drunk. What noise does a monkey make when it drinks?



15

Use **Variables** to monitor your Pet so you know when to play with him, feed him or let him have a drink.

For example, go to **Variables** and make a new one, perhaps you could name it Hungry

The image shows three screenshots from the Scratch interface illustrating how to create a variable. The first screenshot shows the 'Variables' panel with the 'Make a Variable' button highlighted in a red box. A red arrow points from this button to the second screenshot, which is a 'New Variable' dialog box. In this dialog, the 'New variable name:' field contains 'Hungry' and the 'For this sprite only' radio button is selected. A red arrow points from the 'OK' button to the third screenshot, which shows the 'Variables' panel again, but now with 'Hungry' listed as a variable with a checked checkbox, and 'my variable' listed below it with an unchecked checkbox.

Add this code to your **Pet**

The image shows a sequence of Scratch code blocks. It starts with a 'when green flag clicked' block. This is followed by a 'set Hungry to 1' block. Below that is a 'forever' loop containing two blocks: a 'wait 10 seconds' block and a 'change Hungry by 1' block. A red arrow points from the 'Add this code to your Pet' text to the top of this code block sequence.

If you want your Pet to be less Hungry after it eats, add this code to your **when I receive food**

The image shows a single Scratch code block: 'change Hungry by -1'. A red arrow points from the text above to this block.

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You could also monitor if your Pet is thirsty, sleepy or bored?

Is your design unique?  
Is it different to this guide?  
Have you got a friend to test it, to make sure it all works correctly?