

# Teddywaddy Code Club

## Activity 1f

### Taco game

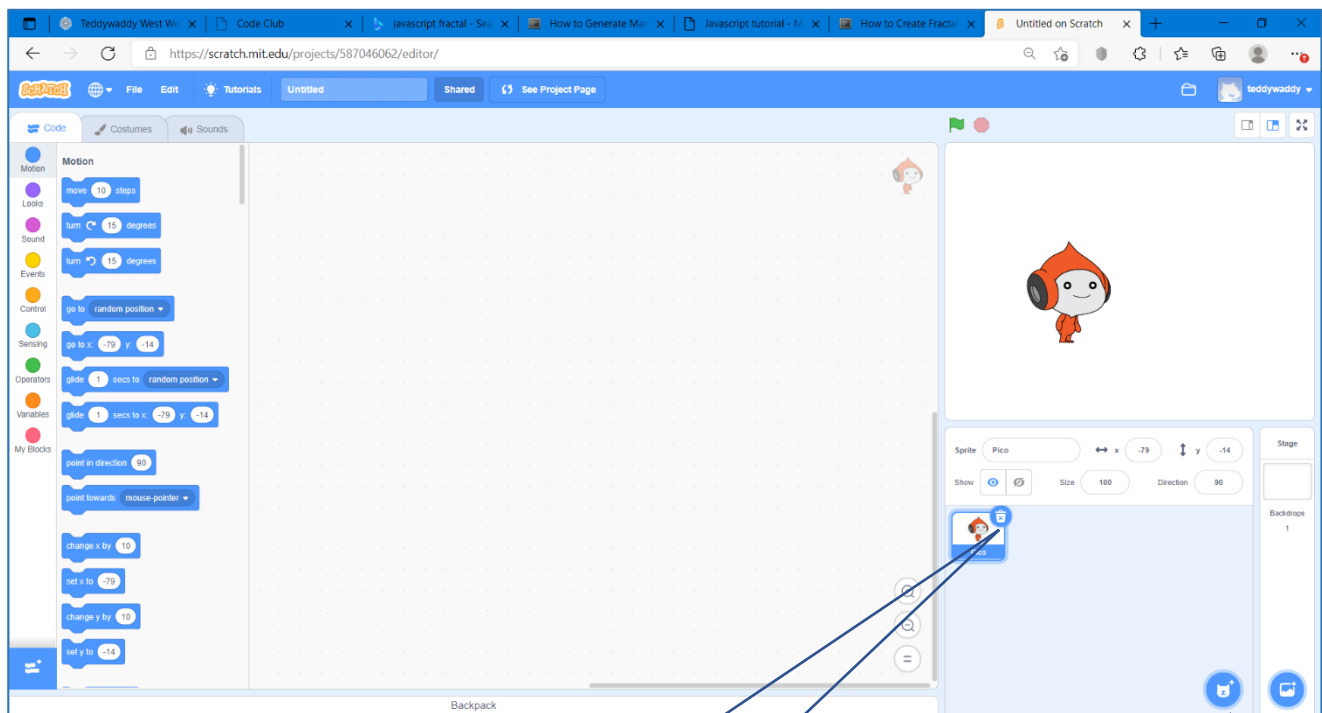


<https://scratch.mit.edu/projects/587733323>

# Taco game

When you open the scratch project it has a character already chosen (Pico), but you can change that to any character you like.

## How to change character

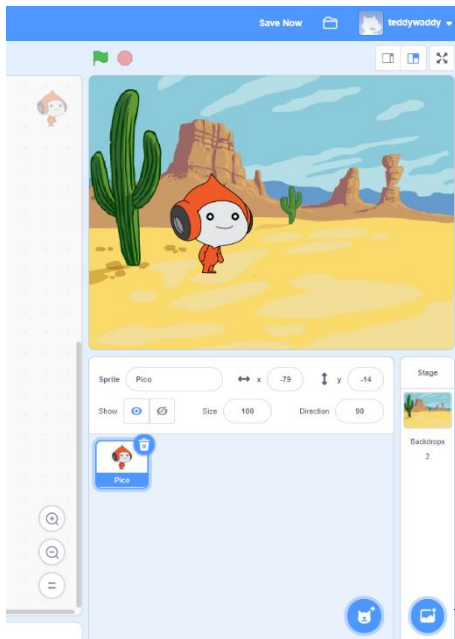


Delete the character sprite by pressing on the garbage can

Choose a different character

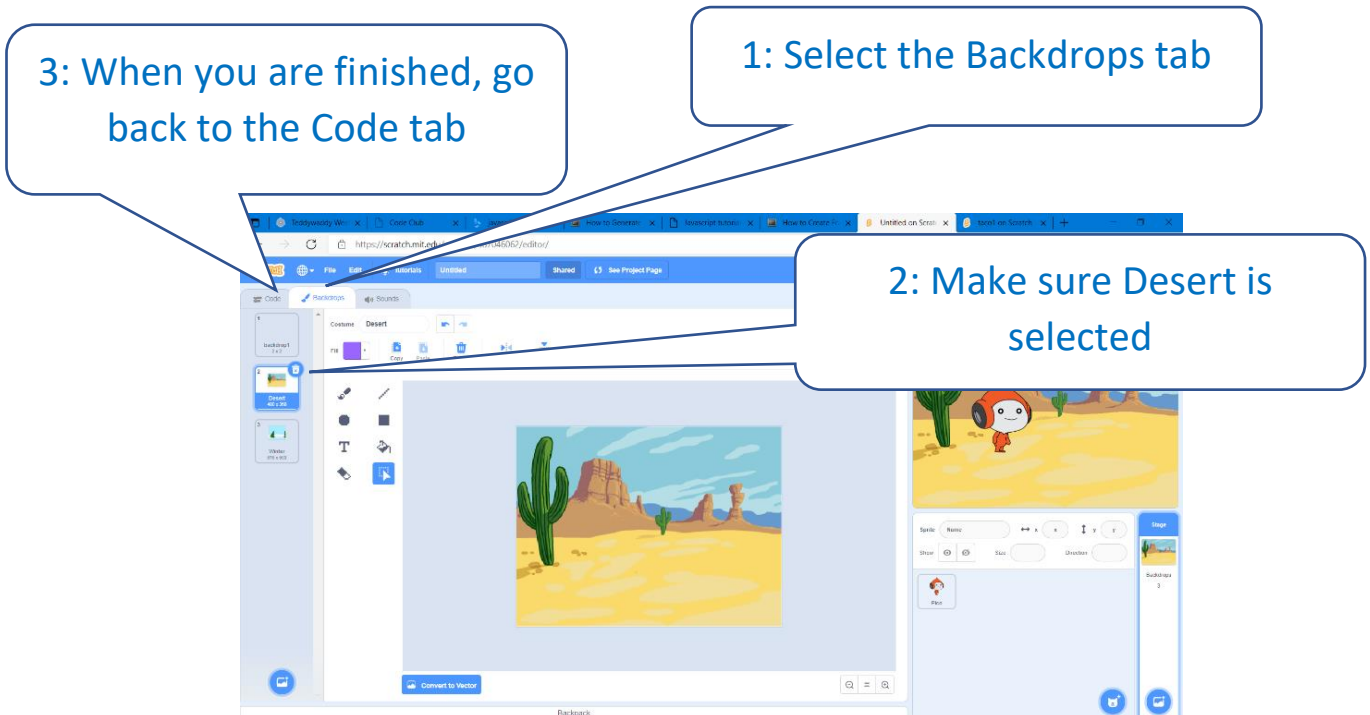
## Add a backdrop

We need two backdrops, Desert and Winter



Select the Desert backdrop  
Also add the Winter backdrop

Make sure the Desert backdrop is up first.



## Move the character with the arrow keys

2: Add the following blocks.

The screenshot shows the Scratch code editor with the following blocks:

- when up arrow key pressed, change y by 10
- when down arrow key pressed, change y by -10
- when left arrow key pressed, change x by -10
- when right arrow key pressed, change x by 10

1: Make sure the character is selected

The right side of the editor shows the stage with a desert backdrop and a character named Pico. The character's properties are: Sprite: Pico, x: -59, y: -84, Size: 100, Direction: 90. The Backdrops list shows 3 backdrops, with the Desert backdrop selected.

You should now be able to move the character around.

To make sure the game always starts with the Desert backdrop, also add the following code blocks.

The code blocks are:

- when green flag clicked
- wait 0.1 seconds
- switch backdrop to Desert

## Add the Taco

3: Place the Taco near the centre top of the backdrop

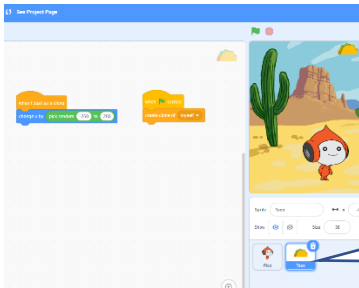
2: Set the size of the Taco to 30

1: Add the Taco

The screenshot shows the Scratch interface with a desert backdrop. A character named Pico is on the stage. A taco sprite is added to the stage. The Properties panel shows the sprite is named 'Taco', with a size of 30 and a direction of 90. The Stage panel shows the taco is positioned near the top center of the backdrop.

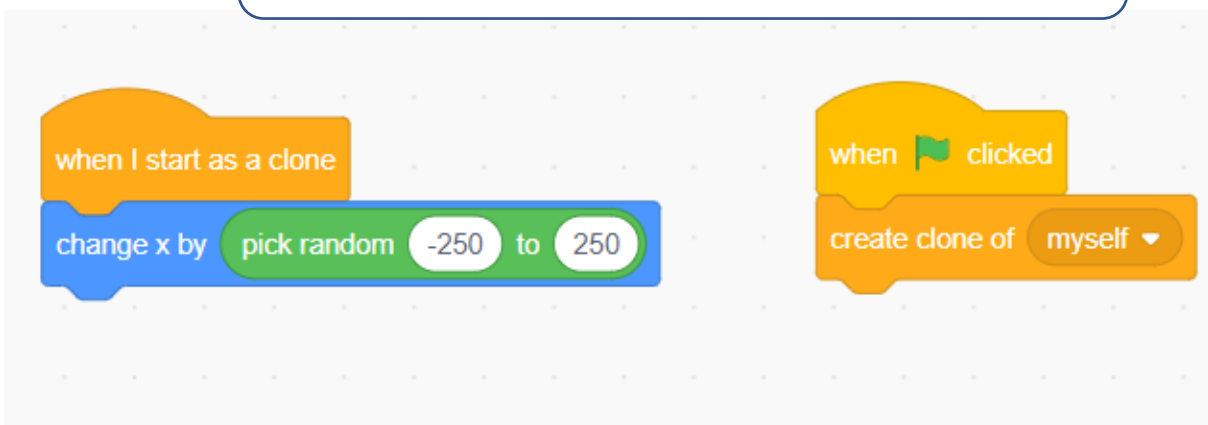
## Add a copy (clone) of the Taco


And make the new clone Taco appear at a different location



1: Make sure you have the Taco selected

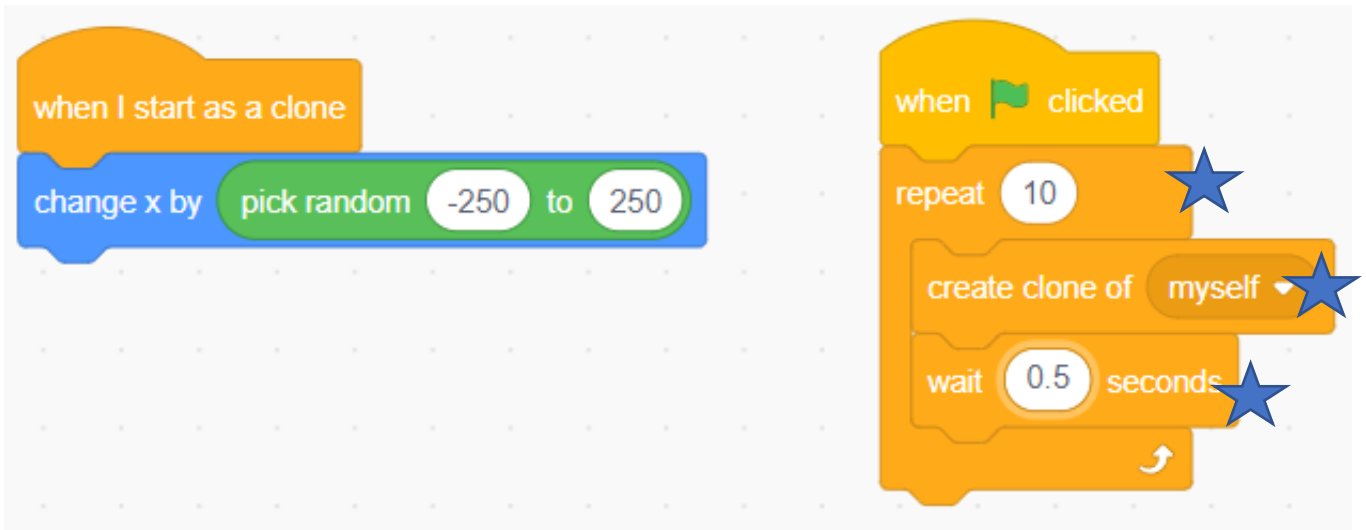
2: Add the following code blocks



Click the flag  a few times to see it working.

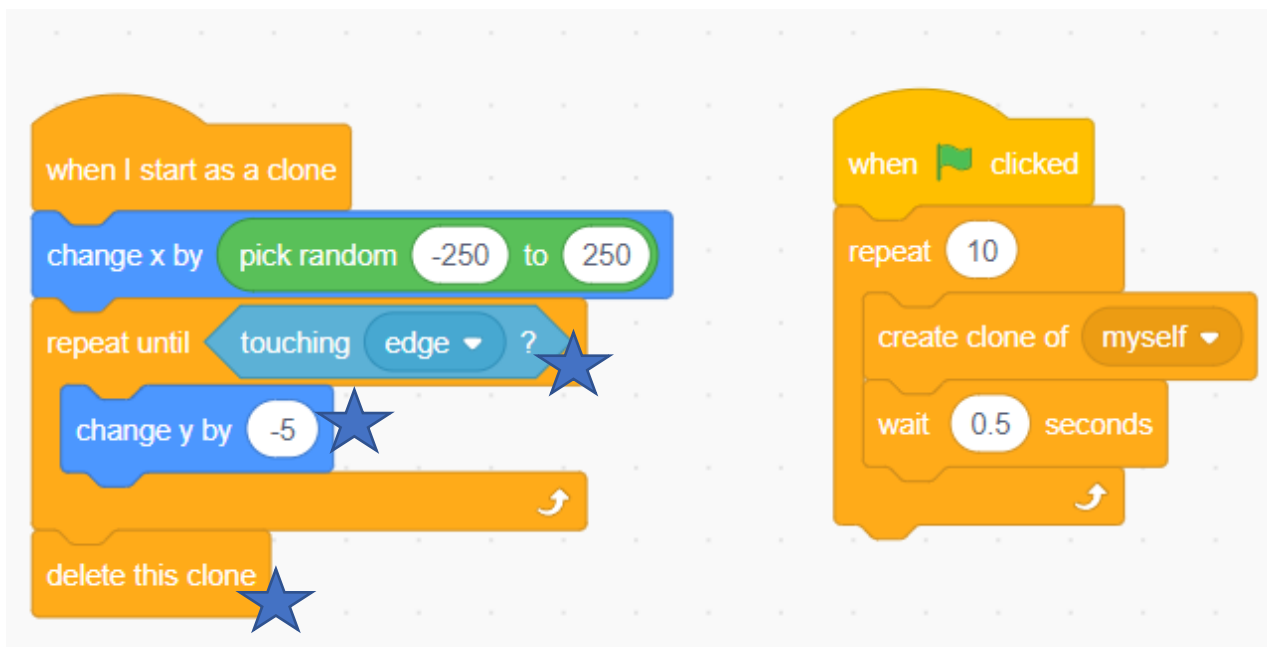
## Now add lots of Tacos

Change the Taco  code block



The image shows two Scratch code blocks on a grid background. The left block starts with a 'when I start as a clone' block, followed by a 'change x by' block containing a 'pick random' block with values '-250' and '250'. The right block starts with a 'when clicked' block, followed by a 'repeat' block with '10' iterations. Inside the repeat loop are three blocks: 'create clone of myself', 'wait 0.5 seconds', and a loop arrow.

## Now make the Tacos fall and disappear at the bottom



The image shows two Scratch code blocks on a grid background. The left block starts with a 'when I start as a clone' block, followed by a 'change x by' block with a 'pick random' block (-250 to 250). Below that is a 'repeat until' block with a 'touching edge?' block. Inside the repeat loop is a 'change y by -5' block. At the bottom is a 'delete this clone' block. The right block starts with a 'when clicked' block, followed by a 'repeat' block with '10' iterations. Inside the repeat loop are two blocks: 'create clone of myself' and 'wait 0.5 seconds', with a loop arrow at the bottom.

Click the flag  a few times to see it working.

Tacos should also disappear if they hit the character (Pico in this case).

Make sure you have the Taco selected.

1: Drag in the **or operator** – just to a blank area

2: Drag the touching block onto one side of the new **or operator** block

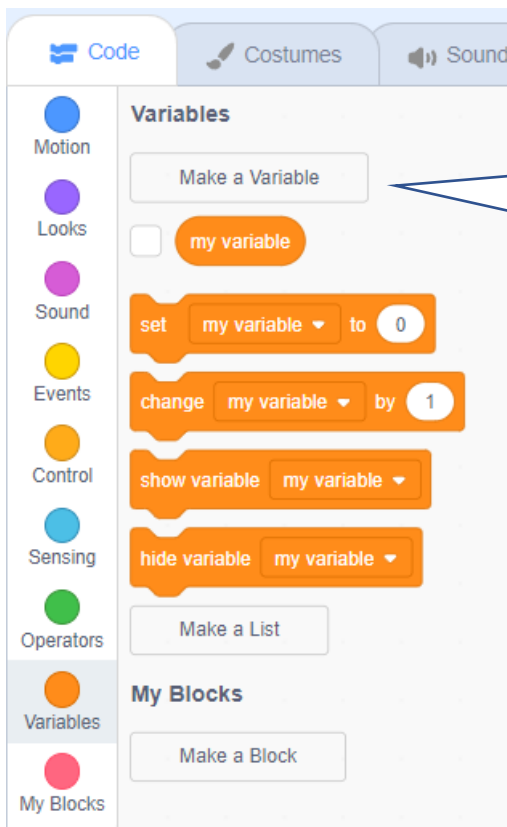
3: Then add another sensing block to the other side

4: Move the whole **or operator** block back to the repeat block

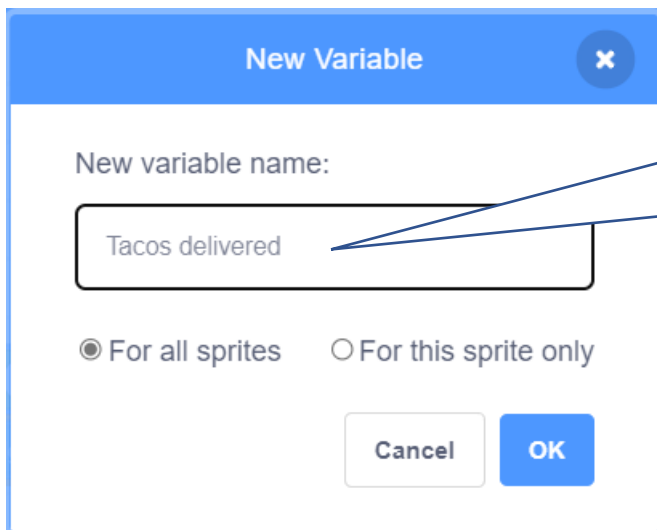
Click the flag  a few times to see it working.



## Keep count of the Tacos

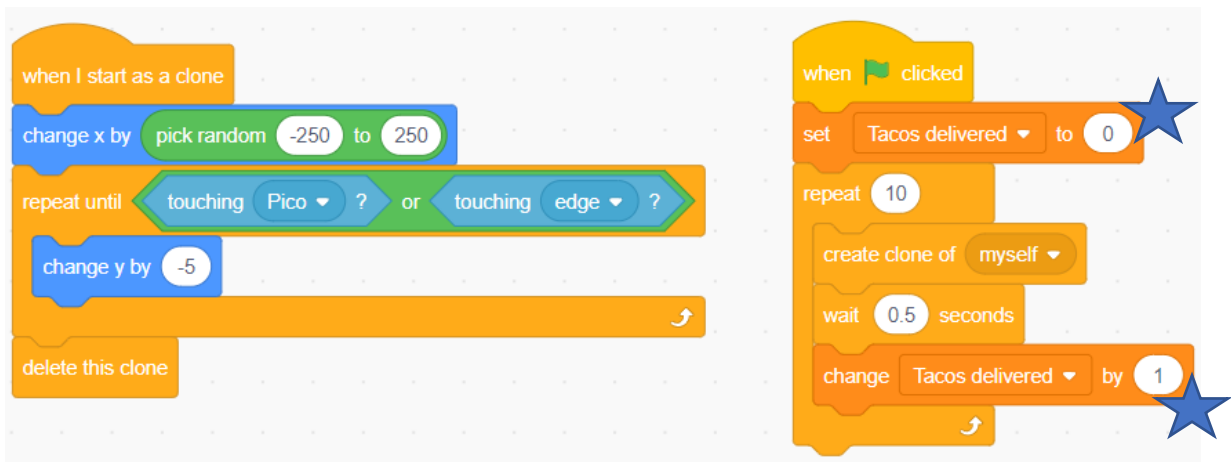



1: Click on  
Make a Variable



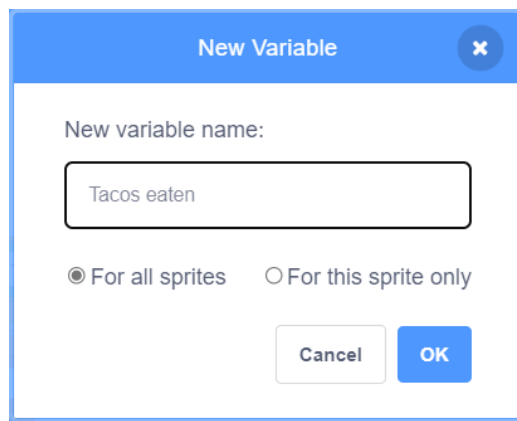
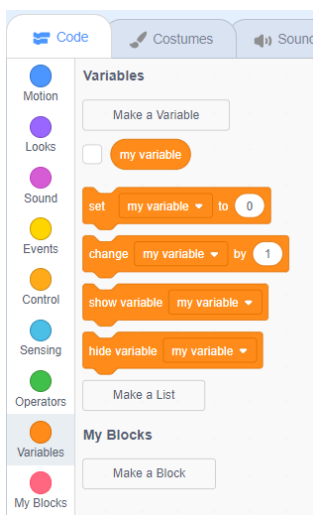
2: Use the name  
**Tacos delivered**  
and then click on OK

## Change the Taco code to count how many delivered



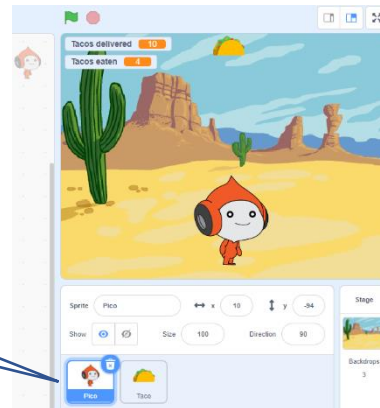
Click the flag  a few times to see it working. Can you move around to dodge the Tacos?

**Make another variable called Tacos eaten (this will be used to count how many Tacos hit the character).**




Add the **Tacos eaten** counter to the code

1: Make sure the character is selected



```
when green flag clicked
  wait 0.1 seconds
  switch backdrop to Desert
  set Tacos eaten to 0
  repeat until Tacos delivered = 10
    if touching Taco? then
      change Tacos eaten by 1
```

2: Add code blocks to do the counting

Click the flag  a few times to see it working.

### Challenges

- Can you dodge all the Tacos?
- Can you add another block to make the character get bigger each time they eat a Taco?

To win, the character must eat no more than two Tacos.

When all the Tacos are delivered, we need to check how many got eaten.

1: Make sure the character is selected



when green flag clicked

wait 0.1 seconds

switch backdrop to Desert

set Tacos eaten to 0

repeat until Tacos delivered = 10

if touching Taco ? then

change Tacos eaten by 1

if Tacos eaten > 2 then

switch costume to pico-d

play sound Baa until done

say I ate too much. Tacos win! for 5 seconds

else

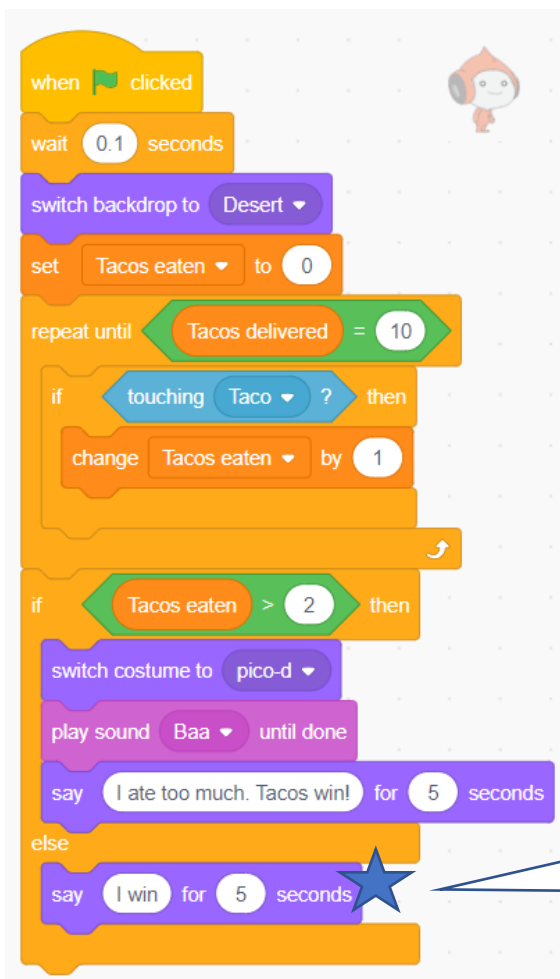
You could change the final costume so that the character has fallen over after losing

2: Add code blocks for losing the game

You can change the costume, the sound and the message to whatever you want.

## Add some more code for winning the game.

Make sure the character is selected.



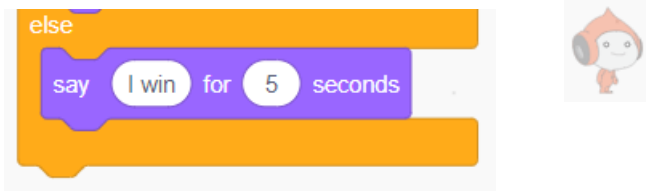
Add code blocks for winning the game. You could also change colours or backdrop and so on.

The winning code is also where you would start another level in the game.

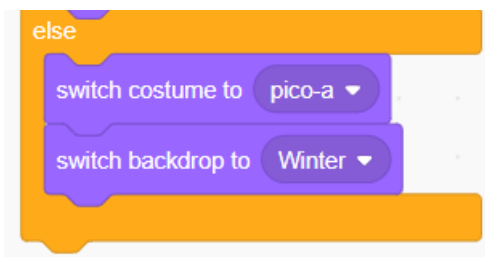
You can stop here or continue on to add another level.

## Change to the level 2 backdrop when the player wins

Change the winning code from this:



to this:



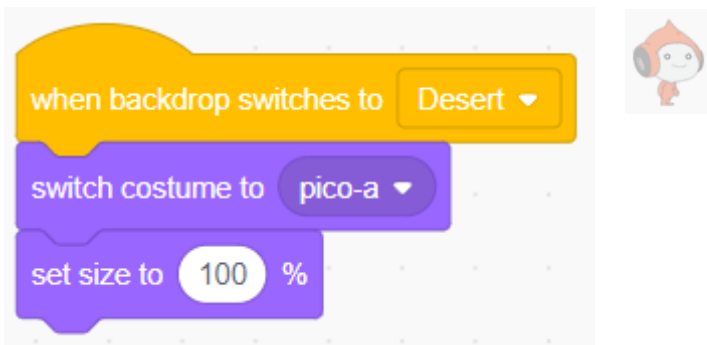
Now make the character jump up and down when they reach level 2.



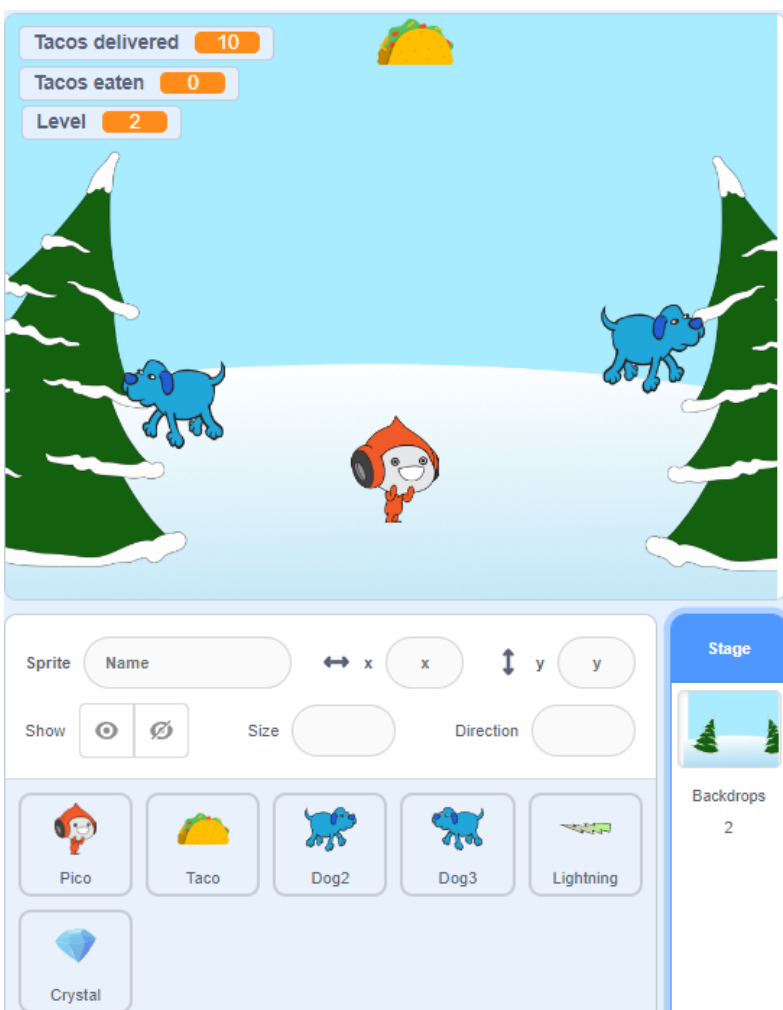
Change the **y:** numbers or the **glide** number to improve the jumping

**Make sure the character goes back to normal when the game restarts.**

Add this new code block to the character as well.



**Now add more sprites to the game for level 2**



Add two dogs, a crystal and a lightning bolt. You can flip characters in the Costume tab.

The dogs and character are 50% size.

The lightning is 30% size.

Place a dog over the top of the crystal.

Place a dog over the top of the lightning.

Add code to each dog to make them run away when touched by the character.

The goto numbers will be different for your dogs.  
The numbers are the starting position where you first placed them to cover the crystal and lightning.

```
when backdrop switches to Desert
hide
```

This is the code for the left dog.  
For the right dog, change both x values to just 15 (not minus).

```
when backdrop switches to Winter
go to x: -148 y: -40
show
wait until touching Pico
repeat until touching edge
  change x by -15
  switch costume to dog2-b
  change x by -15
  switch costume to dog2-a
hide
```

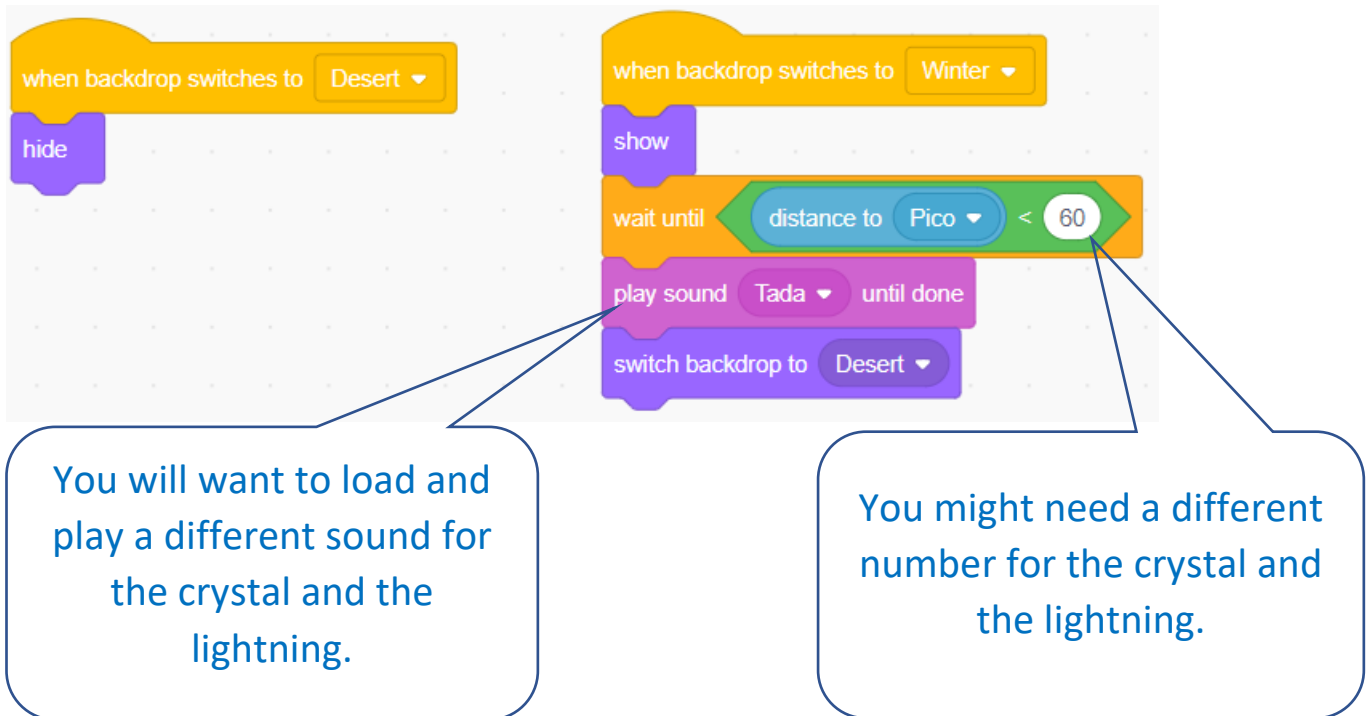




**Add code for winning or losing when the crystal and lightning are uncovered.**

The code is very similar for both.

Select the crystal, add the code and then select the lightning and do the code.



The image shows two Scratch code snippets. The first snippet is for the 'Desert' backdrop, starting with 'when backdrop switches to Desert' followed by a 'hide' block. The second snippet is for the 'Winter' backdrop, starting with 'when backdrop switches to Winter', followed by 'show', 'wait until distance to Pico < 60', 'play sound Tada until done', and 'switch backdrop to Desert'. Two callout boxes provide additional instructions: one points to the 'play sound' block in the second snippet, and the other points to the '60' value in the 'wait until' block.

You will want to load and play a different sound for the crystal and the lightning.

You might need a different number for the crystal and the lightning.

The whole game with two levels and some extra changes can be seen at <https://scratch.mit.edu/projects/556401606/fullscreen/>