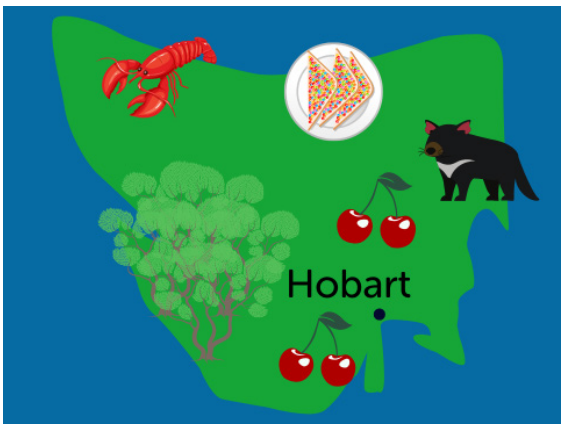
CODE OF ORIGIN

Tasmanian Quiz

Create a self correcting quiz about Tasmania that reveals a picture if the answers are correct.

INTRODUCTION



What you will need

HARDWARE

A computer capable of running Scratch 3

SOFTWARE

Scratch 3:
either online
rpf.io/scratchon
or offline
rpf.io/scratchoff

What you will learn

- How to **ask questions** for the player to answer
- How to use **branching** to determine next actions
- How to use **broadcast**

Starter Project

https://scratch.mit.edu/projects/873559196/

Additional notes for educators

Here is a link to the completed project
https://scratch.mit.edu/projects/873558519/

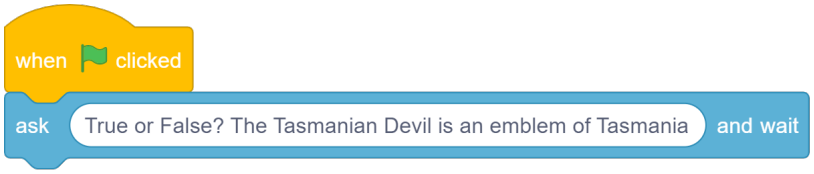
Read this blog post for information about the Code of Origin project by Code Club Australia.

STEP 1 - TASMANIAN DEVIL

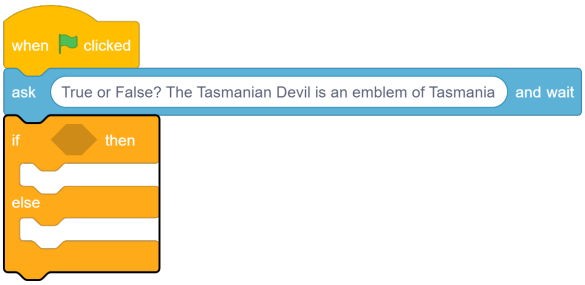
Open the starter project -https://scratch.mit.edu/projects/873559196/

Select the Tasmanian Devil sprite.

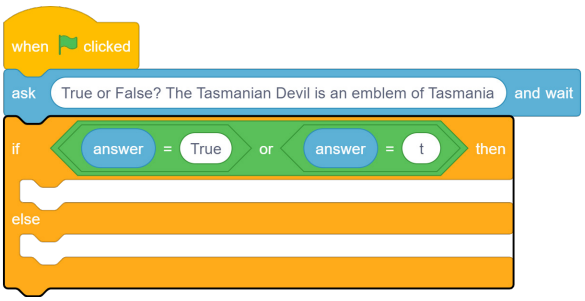
Start with the event when the flag is clicked. In this game, a question will be asked for the player to answer. Add an ask block with the provided question.



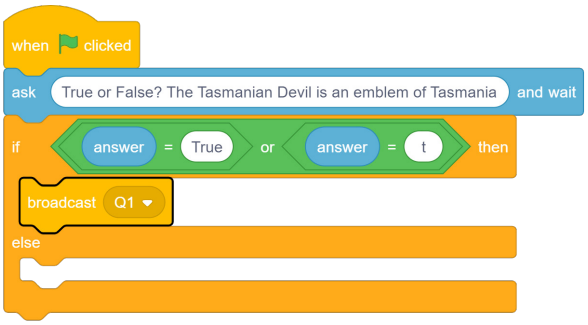
Under this, add an if then else block. We will code the program to know what to do for a correct answer and what to do for an incorrect answer. The first answer is true.



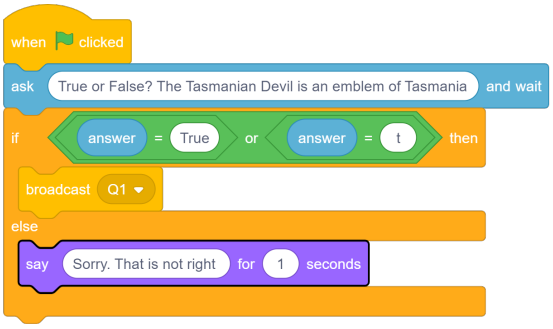
To make the game work the user may enter a word or a letter for their answer, so we are going to nest 3 operators together to tell the program what to do if the player answers true or t (the correct answer). Add in an 'or' operator first. Inside each end add an '=' operator.



Create a new broadcast called Q1. Add this to the top of the block. In some of the next steps, the column sprites will be coded to show when they receive these broadcasts.

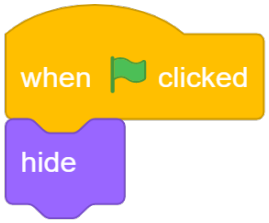


Next, add a say block in the else section. This tells the program what to do if the user does not answer correctly.

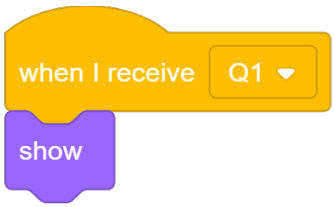


Click on the sprite column-1

This sprite needs two algorithms to tell it what to do. First add a when green flag is clicked block and tell the sprite to hide. When the game begins we don't want to be able to see it.



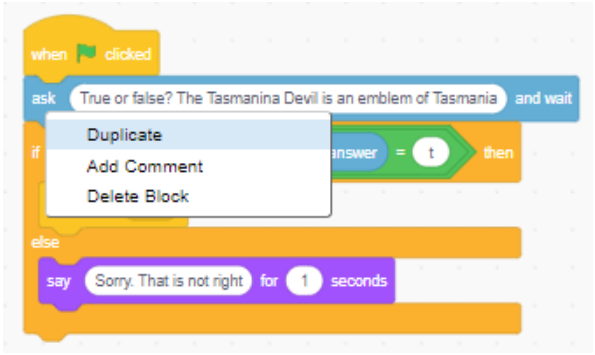
For the second algorithm start with the event when I receive and choose Q1. Then add a show block.



Test your code. Answer the question correctly and you should see the first part of the image appear. Test it a second time with an incorrect answer. Nothing should appear on screen and the Tasmanian Devil should tell you that you weren't correct.

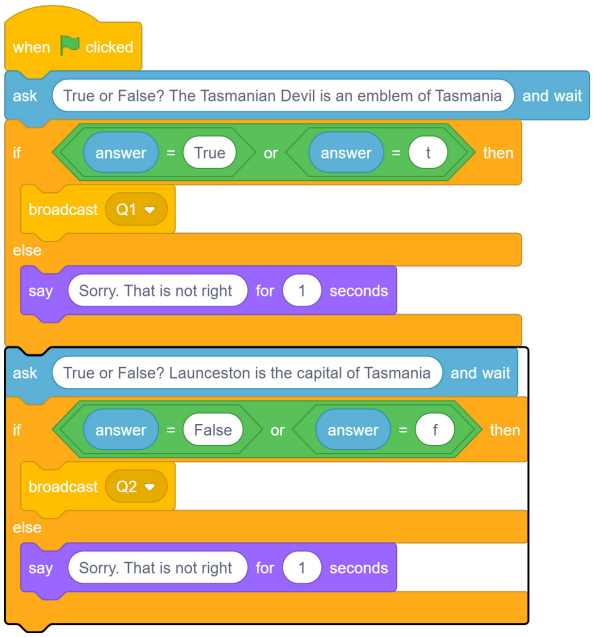
Select the Tasmanian Devil sprite.

The game has 5 questions that all follow the same sequence of coding blocks, just with some of the details changed. Hover your mouse over the ask block and right-click. Choose duplicate from the menu and add your new blocks underneath.



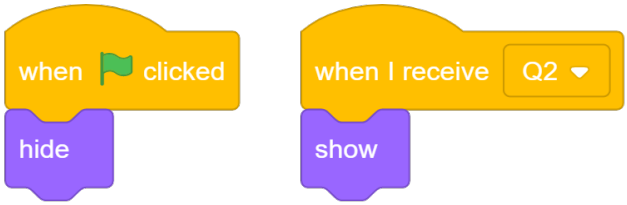
On your duplicated coding blocks make the following changes for the second question

- type new question in the ask block
- change the answers to reflect false being the correct answer for question 2
- create a new broadcast called Q2



Click on the sprite column-2

Add a when green flag is clicked block and tell the sprite to hide. Add a second algorithm with the event when I receive and choose Q2. Then add a show block.

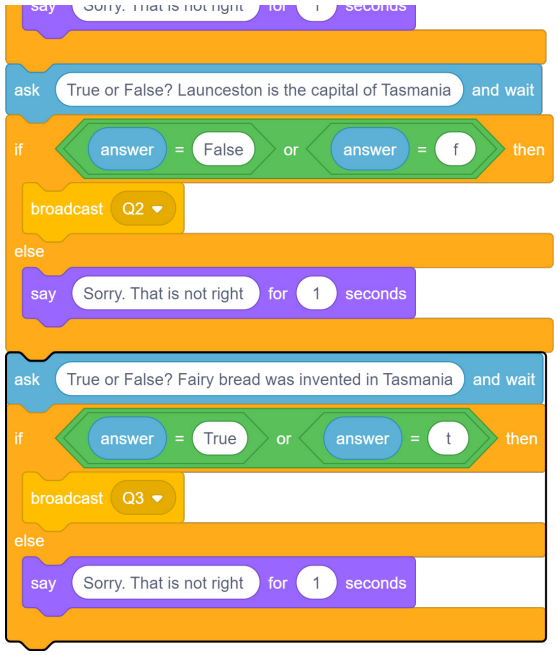


The rest of the project works the same. There are 3 more questions. We will duplicate the blocks to ask the questions and adapt the details. And then on the matching column sprite we will tell it when to hide and when to show.

Select the Tasmanian Devil sprite.

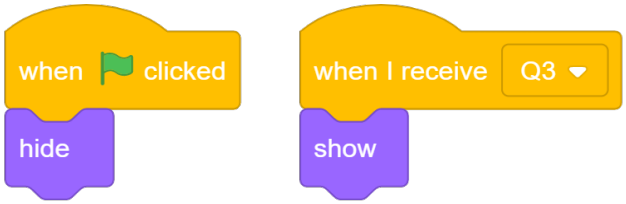
Duplicate another block of code starting at the ask block. On your duplicated coding blocks make the following changes for the third question

- type new question in the ask block
- change the answers to reflect true being the correct answer for question 3
- create a new broadcast called Q3



Click on the sprite column-3

Add a when green flag is clicked block and tell the sprite to hide. Add a second algorithm with the event when I receive and choose Q3. Then add a show block.

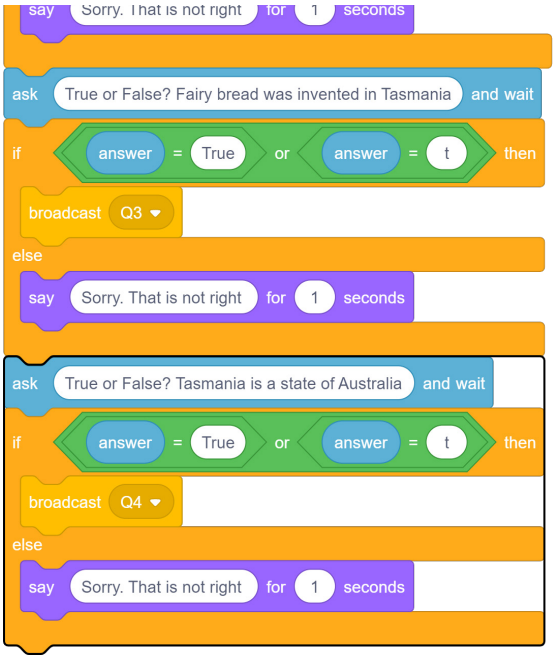


This is a great time to test your project and make sure it is working correctly for the first 3 questions.

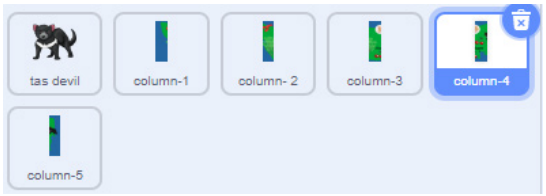
Select the Tasmanian Devil sprite.

Duplicate another block of code starting at the ask block. On your duplicated coding blocks make the following changes for the fourth question

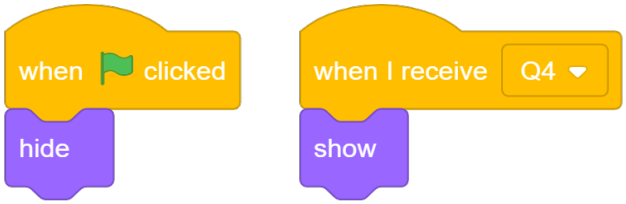
- type new question in the ask block
- change the answers to reflect true being the correct answer for question 4
- create a new broadcast called Q4



Click on the sprite column-4



Add a when green flag is clicked block and tell the sprite to hide. Add a second algorithm with the event when I receive and choose Q4. Then add a show block.



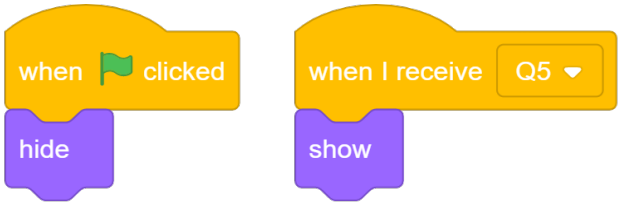
Select the Tasmanian Devil sprite.

Duplicate another block of code starting at the ask block. On your duplicated coding blocks make the following changes for the final question

- type new question in the ask block
- change the answers to reflect false being the correct answer for question 5
- create a new broadcast called Q5

Click on the sprite column-5

Add a when green flag is clicked block and tell the sprite to hide. Add a second algorithm with the event when I receive and choose Q5. Then add a show block.



Test your code. Your game is complete.

Challenges:

Providing answers

The current game requires the answers to be quite specific. If a player attempted to spell true but typed 'tru' and hit enter they would be told that are not right. How could you improve the answering blocks to make sure people aren't disadvantaged by misspelling a word? Or what could you do differently in the game so players know how to answer?

Celebration

The quiz works in a way that the player knows if they got the answers correct or not. If they made a mistake the first time, they could try again and get it all correct. Can you add something at the end of the quiz to celebrate if they get it all correct?

New levels

It would be great to extend the game with a second level of questions or a new challenge. What innovative ideas can you come up with?

Or perhaps you could recreate the quiz for another state or country.

Congratulations!

You have created a game that will help others learn about Tasmania.

Which state or territory will win the Code of Origin?