

SCRATCH TUTORIAL: QUIZ

DIGITAL CONTENT CREATION > 3.4 PROGRAMMING

TARGET GROUP	AGE GROUP	PROFICIENCY LEVEL	FORMAT	COPYRIGHT	LANGUAGE
School drop outs, Students (primary school), Students (secondary school)	Children, Teenagers	Level 2	Activity sheet	Creative Commons (BY-SA)	English, French

In this workshop, participants will learn how to create their own online quiz using the Scratch programming tool. This quiz will be designed with multiple-choice answers so that users can simply click on the displayed answers to choose the right one.

General Objective Knowledge acquisition, Testing

Preparation time for facilitator less than 1 hour

Competence area 3 - Digital content creation

Time needed to complete activity (for learner) 0 - 1 hour

Name of author Dan Beltran

Support material needed for training Computer with Scratch or internet connection

Resource originally created in French

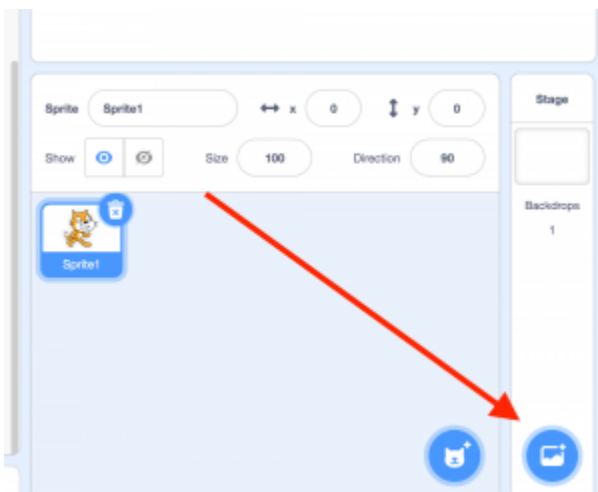
WORKSHOP DIRECTIONS

1 Introduction

The goal of this tutorial is to create a quiz involving multiple questions and answers. These will appear on the screen and the player will have to click the button corresponding to the right answer.

2 Choosing a backdrop

We will first create a backdrop. Choose the backdrop in the bottom right of the creation screen.

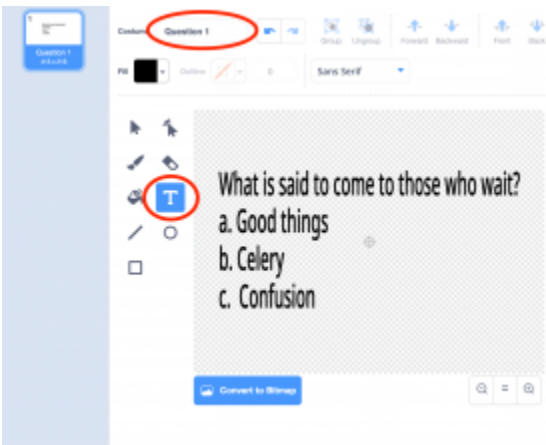


3 Making the questions

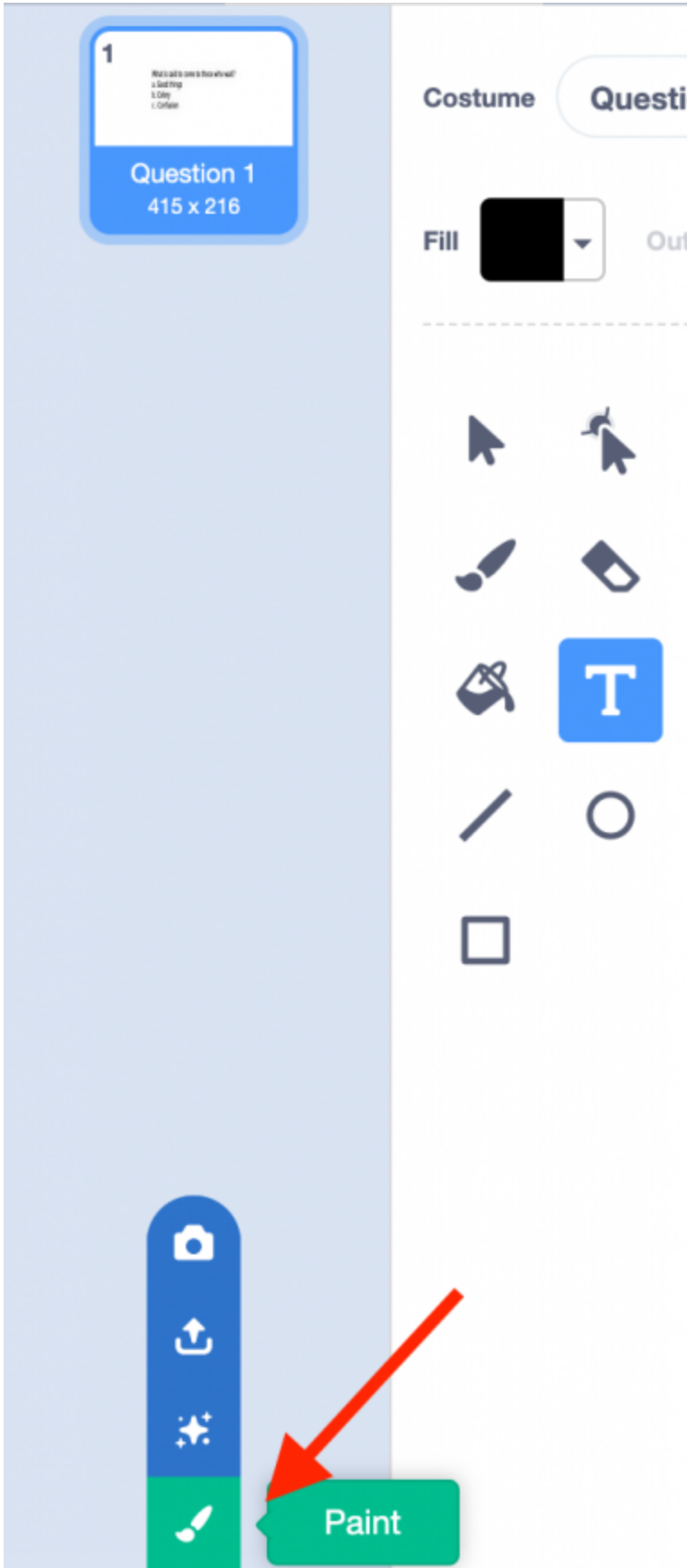
To make a question, create a new sprite by hovering over the icon near the bottom right of the screen and then clicking on 'Paint'.



The question will be one of the sprite's costumes. Under the 'costumes' tab, click the T icon to add text. Then write a question and three possible responses (only one should be correct). Name the costume 'Question 1'.

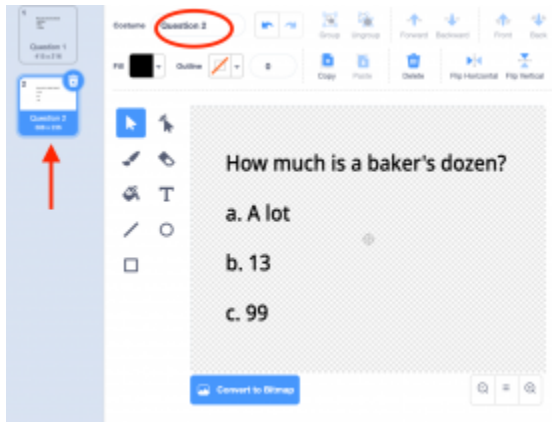


Add as many questions as you want by adding more costumes to the same sprite. To do this, stay under the 'Costumes' tab and go to the icon on the bottom left.

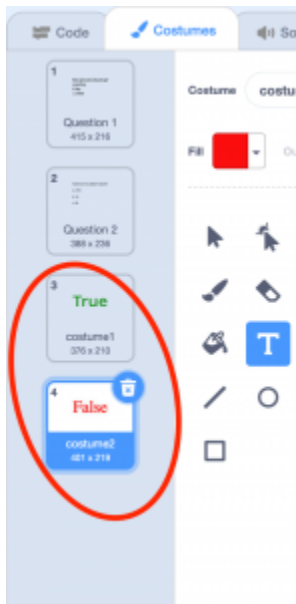


The screenshot displays a digital workspace interface. On the left, a blue-bordered card titled "Question 1" with dimensions "415 x 216" is visible. The card contains a small image of a document with text. To the right of the card is a toolbar with two columns of icons. The top row includes "Costume" and "Questi". Below this is a "Fill" control with a black and white slider and a dropdown arrow, followed by the text "Out". A dashed horizontal line separates the top controls from the drawing tools. The drawing tools include a mouse cursor, an eraser, a pencil, a highlighter, a text tool (a blue square with a white 'T'), a line tool, a circle tool, and a square tool. At the bottom left, a vertical toolbar contains icons for a camera, an upload arrow, a starburst, and a paintbrush. A red arrow points from the bottom right towards the paintbrush icon, which is highlighted with a green tooltip labeled "Paint".

As before, write a question using the text tool and rename the costume.



Now you need to create two costumes - 'true' and 'false' - this time by using coloured text (so that true and false are different colours). In this example, the questions are black, true is green and false is red.



4 Animating the first question

Click on the sprite. Under the 'Code' tab, copy the below blocks. These will start the game with the right

```
when green flag clicked
  switch costume to Question 1
  show
  wait until key a pressed? or key b pressed? or key c pressed?
```

or c.

Code explanation: when the green flag is

clicked, the sprite changes to the costume 'Question 1' and so the first question appears. The script stops until the player press a, b or c on the keyboard. Now the connection needs to be made between the key pressed and the right answer. Add the following blocks:

```
if key a pressed? then
  switch costume to True
  wait 1 seconds
else
  switch costume to False
  wait 1 seconds
```

Code explanation: if the player press 'a' (the right answer in this example), the costume changes to 'true' and stays in this state for 1 second. If the player chooses either of the other 2 possibilities, the script changes the costume to 'false' and waits 1 second. Integrate the code you have written so far to

```

when clicked
  switch costume to Question 1
  show
  wait until key a pressed? or key b pressed? or key c pressed?
  if key a pressed? then
    switch costume to True
    wait 1 seconds
  else
    switch costume to False
    wait 1 seconds
  
```

finish the first question.

5 Animating the second question

The code for the second question is identical

```

wait until key a pressed? or key b pressed? or key c pressed?
if key b pressed? then
  switch costume to True
  wait 1 seconds
else
  switch costume to False
  wait 1 seconds
  
```

ANSWER

is b. The blocks to be used are as follows:

Add

these the previous code and add the extra blocks so the second question is displayed, as follows:

```
wait until key a pressed? or key b pressed? or key c pressed?  
if key a pressed? then  
  switch costume to True  
  wait 1 seconds  
  switch costume to Question 2  
else  
  switch costume to False  
  wait 1 seconds  
  switch costume to Question 2  
wait until key a pressed? or key b pressed? or key c pressed?  
if key b pressed? then  
  switch costume to True  
  wait 1 seconds  
  switch costume to Question 2  
else  
  switch costume to False  
  wait 1 seconds  
wait until key a pressed? or key b pressed? or key c pressed?
```

Code explanation: after waiting 1 second, the

computer will display the second question. It will wait for the player to choose 1, 2, or 3.

6 Going further

Some tips to improve the game:

- Choose a theme and think about the kinds of questions to include
- Add a point count which increases when the right answer is given
- Find a way to indicate the correct response when the wrong one is given before moving on to the next question
- Display a question count so the player knows how far they have progressed
- With an audience familiar with Scratch, challenge them to improve the code used for the example. Here are a few hints: avoid block repetitions, execute the costume-related actions more efficiently, use messages.