

Introduction

SAMPLE

You are going to code your micro:bit to read the future! Simply ask the micro:bit a question, and press a button to find out the answer!



Step 1: Scrolling text

Let's start by scrolling some text instructions on your micro:bit.

✓ Activity Checklist

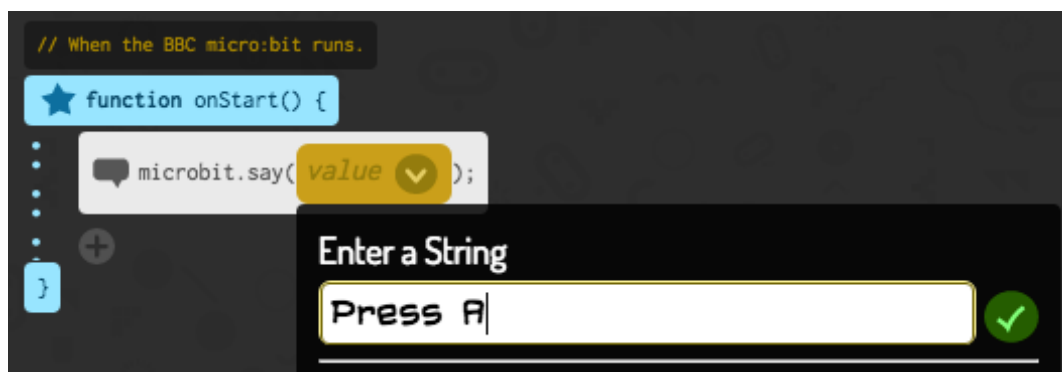
- ☐ Go to jump.to/cc/mb-new to start a new project in the Code Kingdoms editor. Call your new project 'Fortune Teller'.
- ☐ Drag the `say` block inside your `onStart` event.



- ☐ To add some text, click the down-arrow, and choose 'String'.



- ☐ Add your instructions into the text box.

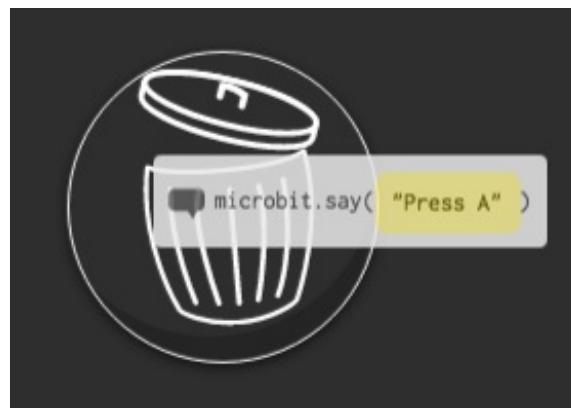


This is how your code should look:

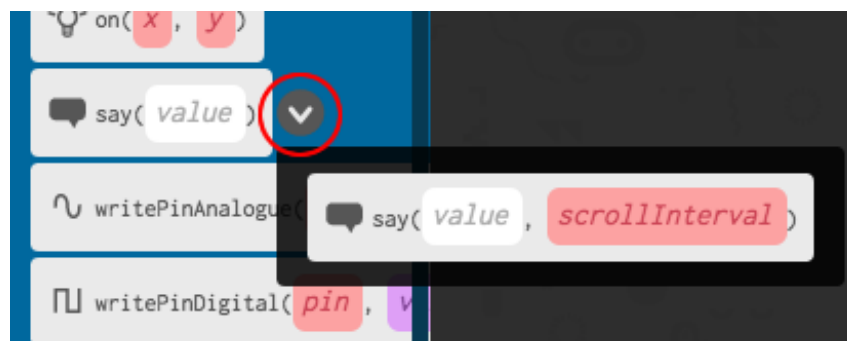


- ☐ Test out your code. You can test it out in the editor or on the micro:bit itself.
- ☐ The text in your `say` block scrolls quite slowly across the screen. To speed it up, you'll need to use **another version** of the `say` block.

Delete your `say` block, so that your `onStart` event is empty.

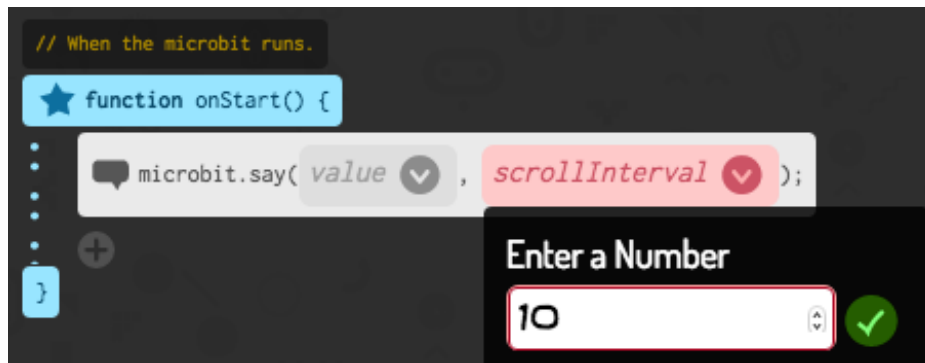


- ☐ Click the down arrow next to the `say` block and you'll see another a second block appear. Drag this block into the `onStart` event.



- ☐ This version of the `say` block lets you decide how long (in milliseconds)

to wait between scrolling. Type `10` into the text box.



Save your project

Challenge: Fixing the scrolling text!

If you test your code again, you'll see that this time the text scrolls too quickly. Can you change the number in your `say` block so that the text scrolls at a good speed.

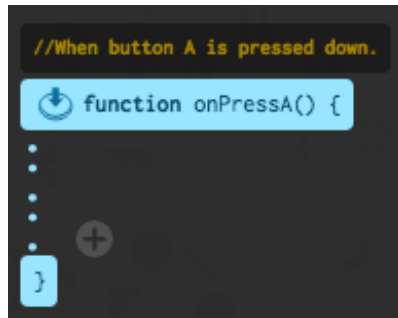
Save your project

Step 2: Making a decision

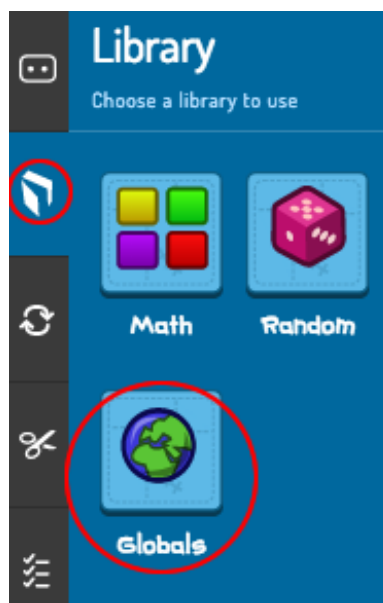
Let's get your micro:bit to make a decision by randomly choosing a number `0` for 'No' and `1` for Yes).

✓ Activity Checklist

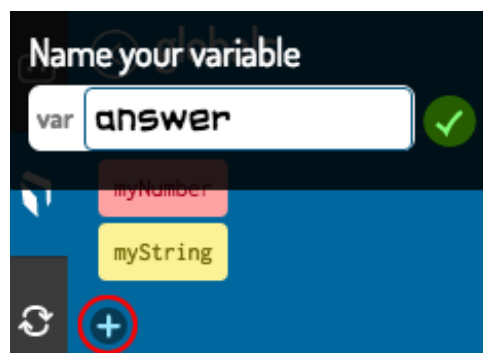
- ☐ Add a new `onPressA` event to your code.



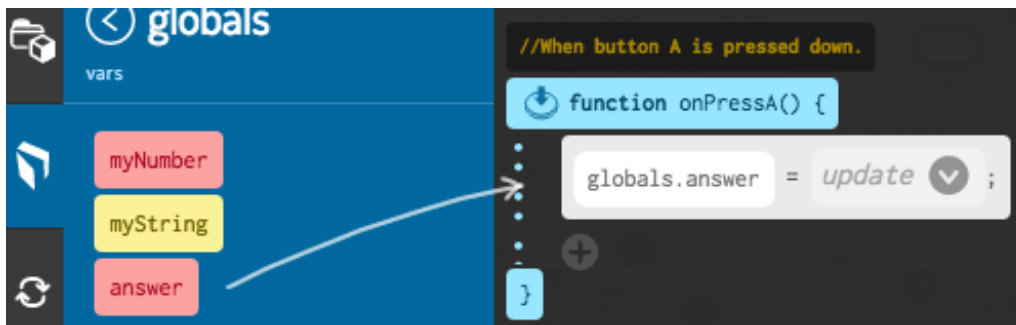
- Let's create a new variable to store the answer. Click the 'Library' icon and then click 'Globals'.



- Click the **+** to create a new variable called **answer**.

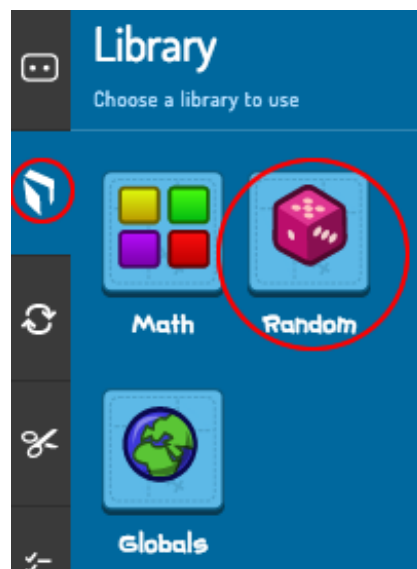


- Drag your new **answer** variable into your **onPressA** event.

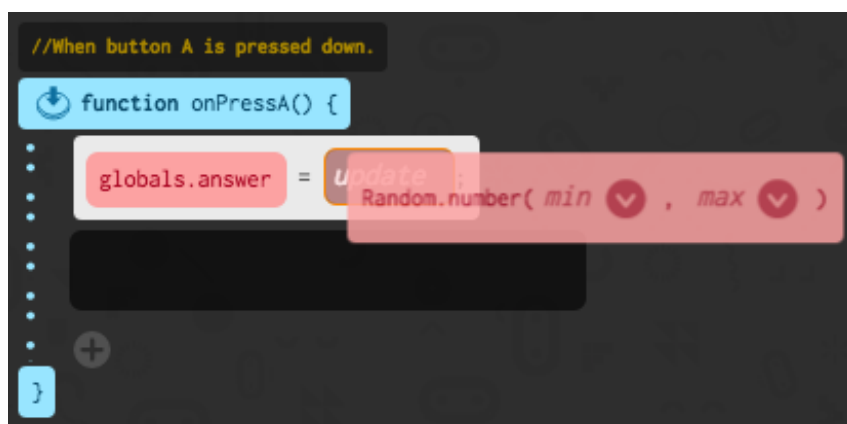


As you can see, the `=` in the block means that you can set the answer to display.

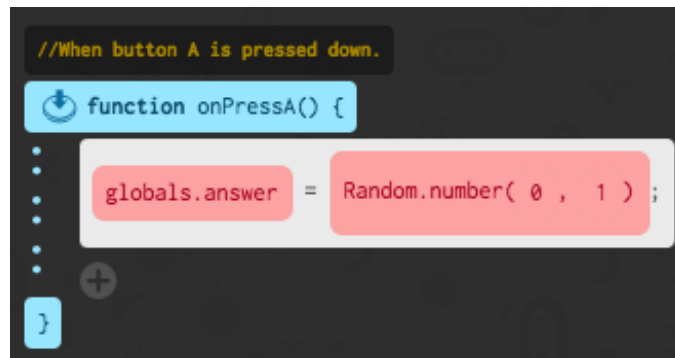
- ☐ Click the 'Library' icon, and click 'Random'.



- ☐ Drag the random `number` block on top of the word `update`.

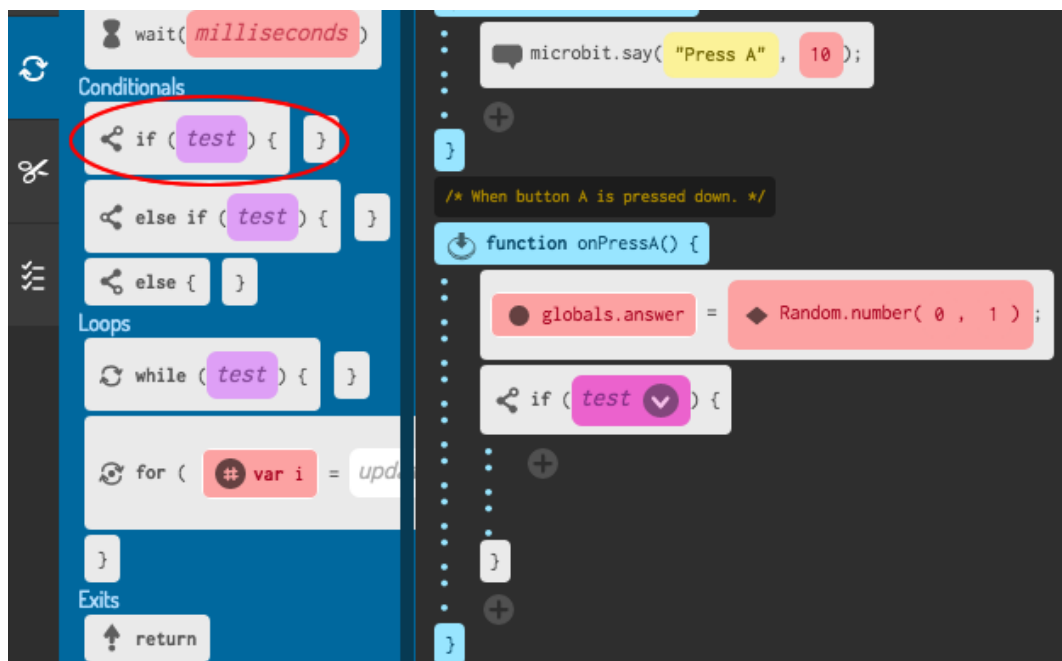


- ☐ Tell the random block to choose a number between 0 and 1. Here's how your code should look:

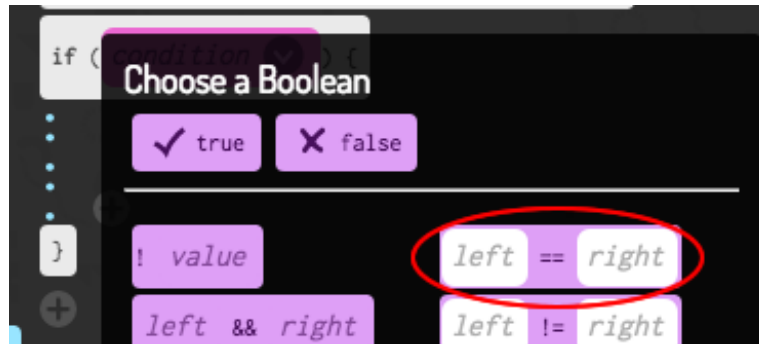


- ☐ Next, you want to display the word `No` on the micro:bit only if the `answer` is 0.

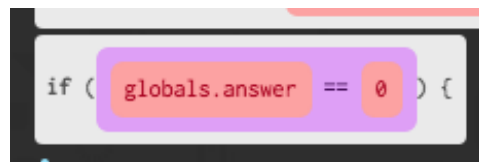
To do this, click the 'Language' tab and then drag an `if` block onto the bottom of your `onPressA` event.



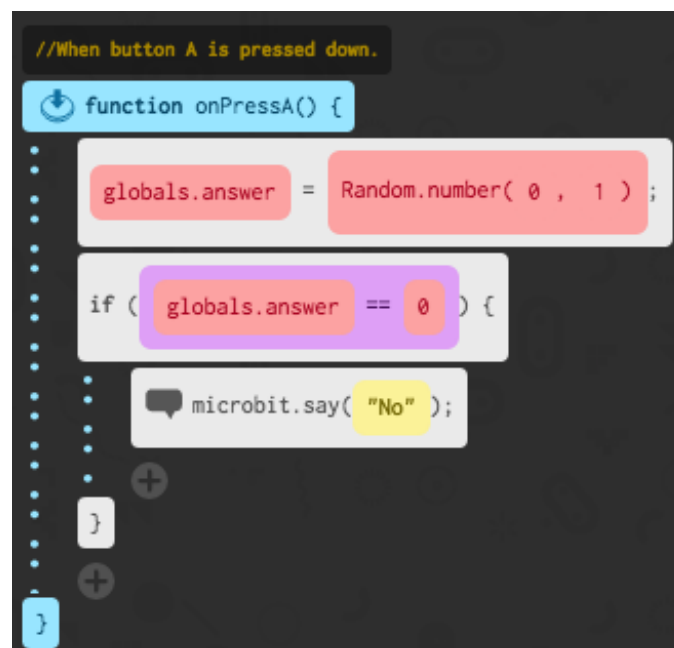
- ☐ Click the down arrow on the `if` block and click `left == right`.



- Drag your `answer` variable onto the left side of the `if` block, and type `0` into the right side.



- Any code inside the `if` block will only run if the `answer` is 0. As 0 is `No`, let's add a `say` block.



- Test your code.

- Sometimes the `answer` will be 0, and the micro:bit should say

‘No’.

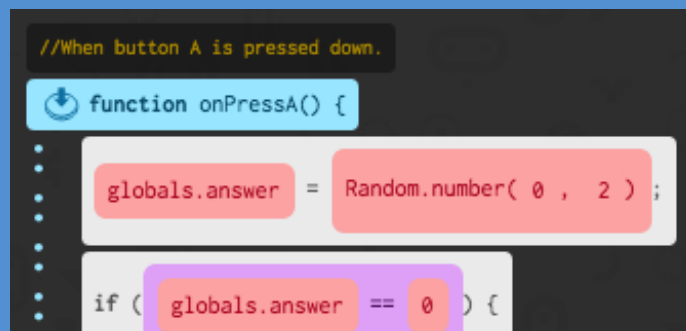
- Sometimes the `answer` will be 1, and nothing will happen!

Save your project

Challenge: Multiple answers

Can you add code so that ‘Yes’ is displayed on your micro:bit if the answer is 1? You can even change the text shown to something more interesting than just ‘Yes’ and ‘No’!

You can even make your micro:bit say something like ‘Maybe’ or ‘Ask again’ if the answer is 2. To get this working, you’ll also need to change your code to choose a random number between 0 and 2!

A screenshot of a Scratch code editor showing a script for a micro:bit. The script starts with a comment '//When button A is pressed down.' followed by a 'function onPressA()' block. Inside the function, there is a 'set global answer to Random number from 0 to 2' block. Below that, there is an 'if' block with the condition 'global answer == 0' and a corresponding 'say No for 2 secs' block.

```
//When button A is pressed down.  
function onPressA() {  
  set global answer to Random number from 0 to 2  
  if ( global answer == 0 ) {  
    say No for 2 secs  
  }  
}
```

Save your project

Challenge: Shake your micro:bit

Can you code your micro:bit to make a decision when it is

shaken instead of when a button is pressed?

Save your project