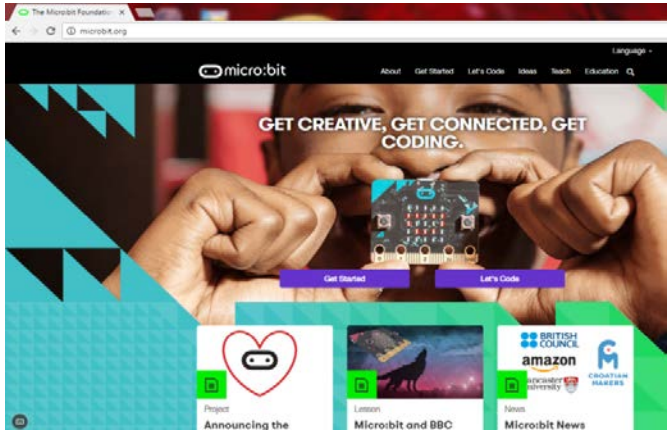
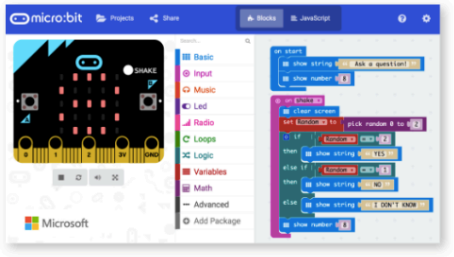
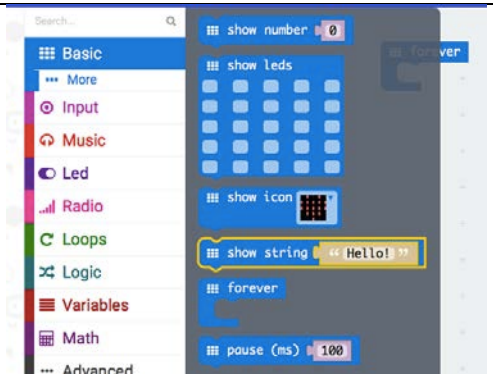
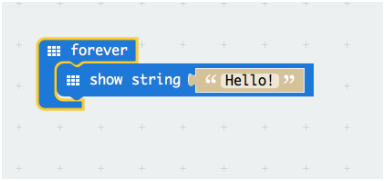
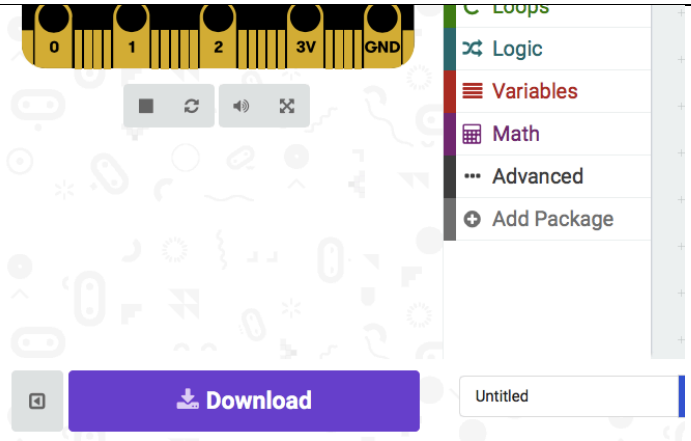
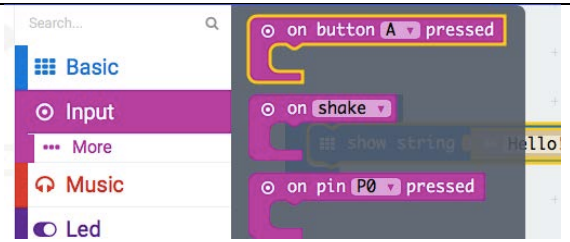
Contributed by Beacon Primary School (CAA 12 April 2017)

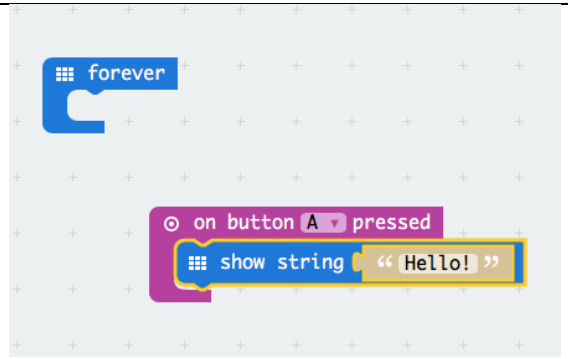
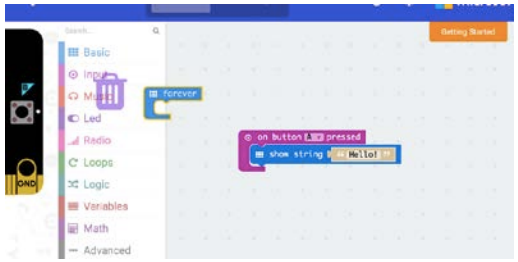
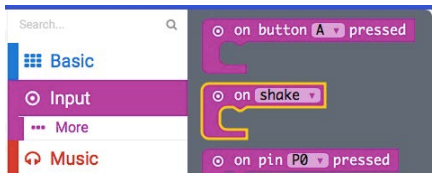
Level:	Primary 2		
Name of Module:	Micro:bit (Enrichment programme)		
Lesson Title:	What's My Name?		
Lesson Number:	1	**Duration:**	60 min
Objective(s) of Lesson:	After completing the lesson, students will be able to code the micro:bit 1. To display a string of text moving across the 5x5 LED 2. To use an input function (button press or shake) to output a string of text on the 5x5 LED		
SEL	Relationship Management - Respect and appreciates his/her friends - Appreciates and accepts differences in opinions		
Resources:	Laptop (with internet access), micro:bit		

Time and Activity	**Description**	**Remarks**
Introduction to Coding 1 min	Coding allows us to programme computers to do tasks. It can be something simple like setting the school bell to ring every 30 minutes, lights coming on when the place is too dark, or even games! All your computer games that you play are made through code! Coding is another form of language, used by computers. With computers, they have different languages. Some use text, some use pictures and others use blocks that join together. Today we will be using a "Block Editor".	

Introduction to hardware 4 minutes	Students to be in pairs. 1 computer to each pair 2 sets of micro:bits to each pair Introduce parts of the microbit - The main board - USB cable (power and programming) - Battery for power If the USB cable is plugged in, there is no need to connect the battery.	*Students may need some practice connecting the battery and USB cable to the main board.* *Teachable moments: In pairs, students may always provide help to each other. Highlight such behaviour and emphasise that more of such positive behaviour should happen during the lesson.*
Preparation 5 min	1. Students to log in to the URL **microbit.org** 2. Click on "Let's Code"	

	3. Select Javascript Block Editor "Let's Code".	 **JavaScript Blocks Editor (PXT)** Micro:bit's new JavaScript editor makes it easy to program your micro:bit in Blocks and JavaScript, along with great new features like peer-to-peer radio. Let's Code Reference Lessons
Activity 1: My name is… 5 minutes	1. Click the "Basic" Tab in the middle. 2. Select **Show String "Hello"** and drag it to the right coding page. 3. Drag **Show String "Hello"** into **Forever.** 4. The simulator on the left should show "Hello!" constantly. *(if not, students might have dragged it into **On Start**, let them troubleshoot with another pair)* 5. Allow students to change the text in **Show String** to their own name, or how they would like to be called.	 

Programming micro:bit 10 min	1. Click “Download”, a file will be downloaded to the downloads folder (may be different on various devices) 2. Connect the micro:bit via the USB cable. It will show up as a “thumb drive” named **“MICROBIT”**. 3. Drag the downloaded file into “**MICROBIT**”. An orange light on the micro:bit will start blinking. 4. Once the orange light stops blinking, the micro:bit is programmed. Students should see their name displayed on the 5x5 LED. 5. Students can disconnect their programmed micro:bit and connect the battery to walk around with their new “Name Tags”. (if time permits)	
Activity 2: Inputs 10 minutes	An “input” means to do something to the device, or micro:bit 1. Click the “Input” tab in the middle. 2. Select **On button A pressed** and drag it to the coding page. 3. Click and hold the **show string** and drag it into the **On button A pressed**. 4. Housekeeping, drag the **Forever** to the left and a	

	bin will appear, let go. T: What do you think we just did to the code? How different is it? T: Try it out in the simulator. 5. Download into the micro:bit and try it out. 6. Get students to try changing the **on button A pressed** to **On shake** (found in the "Inputs" tab)	  
Activity 3: My favourite animal. 10 minutes	1. Ask students to think of their favourite animal. 2. Change the string to show that animal 3. Download 4. Go around and ask someone to guess their	

	favourite animal 5. "Shake" to show the answer!	
Conclusion 10 minutes	T:We just played a simple game using the micro:bit. What did we use to tell the micro:bit what to do? S: Coding. T: Yes, so coding is another form of language that allows devices like your phones, computers and the micro:bit to take instructions. T: Did you also learn something about your friend today? S: I learnt that my friend's favourite animal is _____. T: Is it also your favourite animal? T: We have different interests and opinions, and we should appreciate our friends and their opinions. We can't all be like same things.	
Pack up 5 min	Return all equipment and materials.	