

ASCII Codes

Subject: Computer Studies

Level: Sec 2

Unit: 3

Topic: 3

Summary

Students learn about ASCII codes and their use in computing. They write a program on the microbit to show uppercase letters of the alphabet when button A of the microbit is pressed and lowercase letters of the alphabet when button B of the microbit is pressed. Buttons A and B will follow their own sequence and start from the letter A and a respectively and move onto the next letter every time the buttons are pressed .

Prior Knowledge:	Students should already know: <ol style="list-style-type: none"> 1. How to program buttons on the microbit 2. How to use variables for program control
Learning Objectives:	By the end of the lesson, students should be able to: <ol style="list-style-type: none"> 1. understand how ASCII codes work 2. how ASCII codes are useful in computing

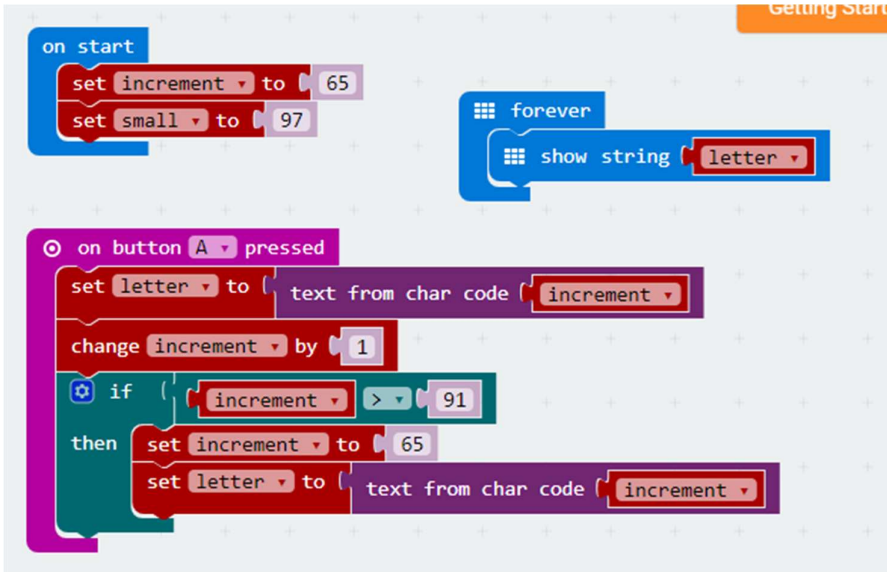
Time	Teacher Activities	Purpose	Resources Needed
Introduction/Pre-activity			
10 mins	Briefing / Video about ASCII codes and their use	To learn about ASCII codes and their use in computing	Online sites, video etc.. https://www.youtube.com/watch?v=gt9KLXj3do https://www.youtube.com/watch?v=PJzmOBbS3Xc
Lesson development/Main activities			
10 mins	Explain microbit program using variables, buttons for control to display upper/lower case letters		
20 mins	Students to code the program in the website https://makecode.microbit.org/# and test it out on the microbit		Microbit code

Lesson Plan

Closure and consolidation/Post-activity			
20 mins	Try to modify program to make button B follow button A to display that particular letter in lowercase	To learn that the difference between upper and lowercase letters are always the same	ASCII table
	<i>(Optional post-class activity)</i>		

Additional Remarks:

Program to be used :



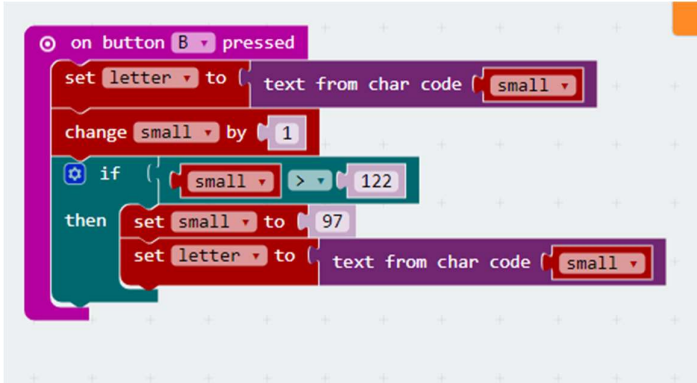
Getting Started

```

on start
  set increment to 65
  set small to 97

  forever
    show string letter

on button A pressed
  set letter to text from char code increment
  change increment by 1
  if increment > 91
    then
      set increment to 65
      set letter to text from char code increment
  
```

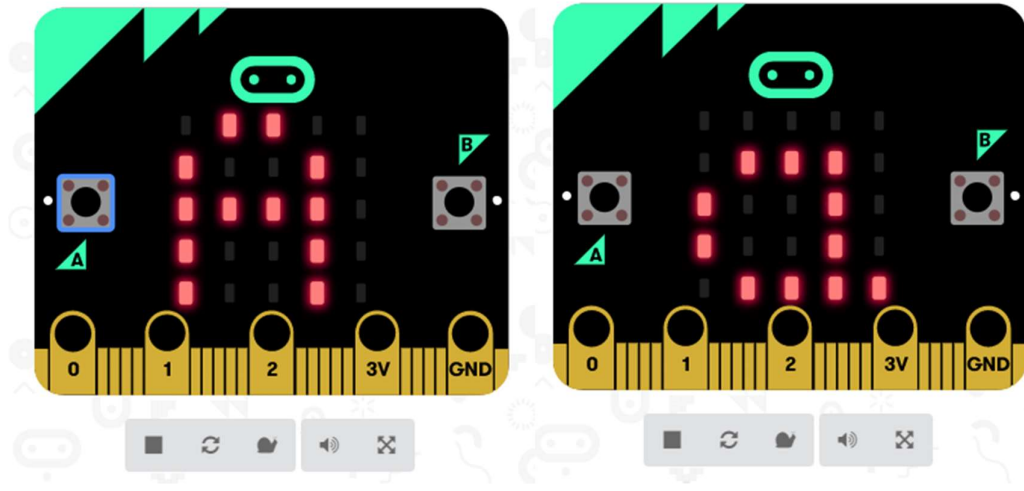


```

on button B pressed
  set letter to text from char code small
  change small by 1
  if small > 122
    then
      set small to 97
      set letter to text from char code small
  
```

Lesson Plan

Results :



Contributed by:

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Date: 15/11/2017