Basic coding

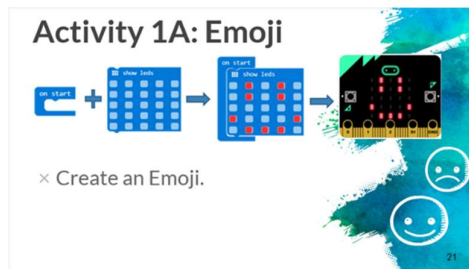**Programme: ALP**   **Level:**   Secondary 2

Theme / Challenge Statement:

Summary

Students are exposed to the microbit for the first time, after learning about the basics of coding through online programmes such as the hour of code.

Activity 1A: Emoji
× Create an Emoji.

Prior Knowledge:	Students should already know: 1. simple coding using "blocks" 2. Electric circuits 3.
Learning Objectives:	By the end of the lesson, students should be able to: 1. Use the microbit to display information using the LED 2. create a customised emoji to display on the LED 3.

Time	Teacher Activities	Purpose	Resources Needed
Introduction/Pre-activity			
10 Min	Introduction to the microbit. What is the microbit, what are the features on the microbit, what the microbit can do.	To let the students have a better understanding of what the microbit can do.	Video Handouts Powerpoint slides
Lesson development/Main activities			
10 Min	Introduce the layout of the online coding platform. https://makecode.microbit.org/ Distribute microbit	To explain how the platform works	laptops Microbit
5 Min	Explain how to : Create new projects, save files, Transfer hex files to mirobit.	To teach students how to transferring information to the microbit.	laptops Microbit

Lesson Plan

30 Min	Activity 1A: create an emoji Activity 1B: tick cross using buttons A and B	To use the 5 x 5 LED display on the microbit. To use buttons A and B to display different images.	laptops Microbit
Closure and consolidation/Post-activity			
5 Min	Collection of materials		

Please send this template, together with any additional resources, e.g. Powerpoint slides, worksheets and .hex file, to: digital_maker@imda.gov.sg.

Contributed by:

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Name of Teacher (Optional):

Date: 26 Jan 2018