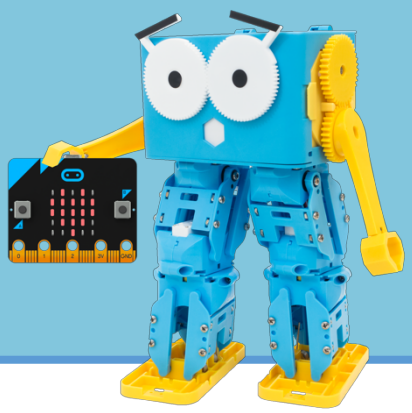
Lesson 1.19 – Marty Micro:Bit Bingo



Education Level: Second Level (Age 7-11)
Lesson Duration: 45 minutes

Prerequisite Knowledge: Lessons 1.1-1.14
Device Compatibility: Laptop, PC or Tablet

Lesson Overview
We will explore a new way of programming Marty through interacting with the BBC Micro:Bit – a micro controller that has been built to help introduce physical computing and coding to young people. In this lesson, students will be experimenting with some of the different functionalities that the Micro:Bit has on offer to see how they can then use Marty and the Micro:Bit together.

Learning Objectives
- Describe what the Micro:Bit is and some of the basic functionalities that it has
- Explore the different ways that we can interact with the Micro:Bit
- Describe how we can program and control Marty using the Micro:Bit

Key Vocabulary
- Micro:Bit
- Functionality
- Movement
- If Statements
- Events
- Explore

Resources & Equipment
- Marty the Robot
- Marty Workbook (Lesson 1)
- Laptops/Computers/Tablets
- Access to the Scratch 3 editor
- BBC Micro:Bit
- Scissors
- Glue/Sellotape
- Marty dice worksheet
- Micro:Bit dice worksheet

Additional Reading
- Educator's Guide
- Introduction to Programming with Marty using Scratch
- BBC Micro:Bit Quick Start Guide for Teachers (https://microbit.org/guide/quick/)

Learning Plan & Activities
1. Hand out some Micro:Bits to students so that they can see and touch the device
2. Discussion of what the Micro:Bit is, what it is made up of and some of the things that we can use it for
   a. Ask students to complete activities in their workbook such as fill in the blanks and labelling the diagram
   b. Go over as a class to make sure everyone has got all the information
   c. Final task in workbooks of thinking about the different things that we can use the Micro:Bit for
3. Break students up into small groups of 2-3 and give each a copy of both the Marty and Micro:Bit dice worksheets
   a. Students should cut out and glue together the dice so that they have 2 dice – one with Marty movements and one with Micro:Bit movements
4. In groups, students should take it in turns to

a. Roll the two dice
b. Create a small program using Scratch to do as the dice say (for example, when the Micro:Bit is shaken, Marty should walk forwards)
c. Other members of the group must test and check the program
d. Tick off the two actions/movements in that students workbooks
e. Repeat with the next student in the group
f. Note that if the student gets actions/movements that they have already ticked off then they can skip it but that is their turn over for that round!

5. The game ends once all students in the group have ticked off all 12 actions/movements listed in their workbooks

Additional Challenges

- Student groups could race each other to see who is the first to tick off all the action/movements
- Get students to create their own dice for the Micro:Bit or Marty or even just for general Scratch blocks

Curriculum Benchmarks

Curriculum for Excellence – Technologies Benchmark Guide

● = Fully Addresses Benchmark ○ = Partially Addresses Benchmark

Curriculum Organiser	Benchmark Covered	Lesson 1.19
Digital Literacy	TCH 0-01a	●
	TCH 0-02a	●
Technological Developments in Society & Business	TCH 0-05a	●
Craft, Design, Engineering and Graphics	TCH 0-09a	●
	TCH 0-11a	●
	TCH 1-12a	○
Computing Science	TCH 0-13a	●
	TCH 1-13a	●
	TCH 2-13a	○
	TCH 3-13a	●
	TCH 3-13b	○
	TCH 4-13a	○
	TCH 0-14a	●
	TCH 0-14b	●
	TCH 1-14a	●
	TCH 1-14b	●
	TCH 2-14a	○
	TCH 3-14a	●
	TCH 0-15a	●
	TCH 1-15a	●
	TCH 2-15a	●
	TCH 3-15a	○
	TCH 4-15a	○

National Curriculum – Computing, Design & Technology

● = Fully Addresses Benchmark ○ = Partially Addresses Benchmark

Curriculum Organiser	Benchmark Covered	Lesson 1.19
Computing	1-a	●
	1-b	●
	1-c	●
	1-e	●
	2-a	●
	2-b	●
	2-c	●
	2-f	○
	3-a	●
	3-b	●
	3-d	○
	4-a	○
	4-b	○
Design & Technology	1.1-b	●
	1.2-a	●
	2.3-b	●