Coding a Snow Globe – micro:bit Christmas Lesson

Working towards outcomes of the Curriculum for Excellence:
I understand the instructions of a visual programming language and can predict the outcome of a program written using the language. (TCH 1-14a and TCH 2-14a)
I understand how computers process information (TCH 1-14b and TCH 2-14b)

Learning Intention	*Success Criteria*
We are learning to create a snow globe with the micro:bit.	- I can identify the accelerometer on the micro:bit and explain its purpose. - I can use the shake and LED blocks in MakeCode to create a snow globe. - I can add extra blocks to my code to improve my snow globe.

Resources	Learners will need: • 1x micro:bit, 1x USB Cable, 1x Battery Pack and 1x device (iPad or Laptop).
Timing	1hour

5-10mins	**Introduction** Watch an introductory video from Mr Morrison. This demonstrates the snow globe program, talks about inputs and then takes learners step by step through creating the code.
15-20mins	**Part 1 – Simple Snow Globe Code** Learners follow the tutorial to create the code. You can use the slide and video as prompts for this. Full Code can be found HERE. Learners should download and test their code.
15-20mins	**Part 2 – Snow Globe with Fade.** To extend the learning part 2 looks at adapting the snow globe to include the LEDs fading away. Watch the video which discusses 'brightness' then provides a tutorial to add the extra blocks of code (Full Code HERE). Learners should then download and test their code. **(Extension)** This lesson is very easy to extend by asking learners to change the animations or add longer sounds.
5-10mins	**Ending the lesson (Plenary)** After celebrating the classes' creations there are optional plenary discussion questions. Have a great Christmas!