Micro:bit Coding Christmas Music

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 can use my voice, musical instruments and music technology to experiment with sounds, pitch, melody, rhythm, timbre and dynamics. (EXA 2-17a)
Inspired by a range of stimuli, and working on my own and/or with others, I can express and communicate my ideas, thoughts and feelings through musical activities. (EXA 2-18a)

Learning Intention	*Success Criteria*
We are learning to code Christmas Music on the Micro:bit.	- I can understand some simple music concepts such as notes names, note lengths and rests. - I can understand how to use the different music blocks on MakeCode. - I can create a well known Christmas Song on the micro:bit using the notes.

Resources	Learners will need: • 1x micro:bit, 1x USB Cable, 1x Battery Pack and 1x device (iPad or Laptop). • You may want learners to use headphones when creating their music!!
Timing	1hour
10-15mins	**Introduction** Watch an introductory video from Mr Morrison. This looks at some very brief music theory about note names, octaves (why there's different notes with the same name), note lengths and rests. It then has an around 8 minute detailed coding tutorial for Jingle Bells using MakeCode.
15-20mins	**Part 1 – Coding Jingle Bells** I would suggest Jingle Bells is a good place to start for learners to build the skills they need for creating other songs. You can use the slide and video as prompts for this. Full Code can be found HERE.
As long as you wish!	**Part 2 – Coding another Christmas Song.** I have included 6 commonly known Christmas songs of differing difficulty in the PowerPoint. These include some flat and sharp notes (black keys) and the ^ notation just means the note is in the higher octave. All the songs come from the NoobNotes website HERE where you can find more Christmas and non-Christmas songs. *(I have not deemed this website suitable for all children which is why I have copied the lyrics. Please use your discretion as some of the songs there may have themes or language not suitable for younger learners.)* **(Extension)** This lesson is very easy to extend by asking learners to create another piece of Christmas music on the micro:bit. They could also add pictures with the LEDs to accompany the music. Finally they could create their own piece of music.
10mins	**Ending the lesson (Plenary)** After celebrating and listening to the classes creations there are optional plenary discussion questions. Have a great Christmas!