



arm

# Making Music: Iteration



arm School Program

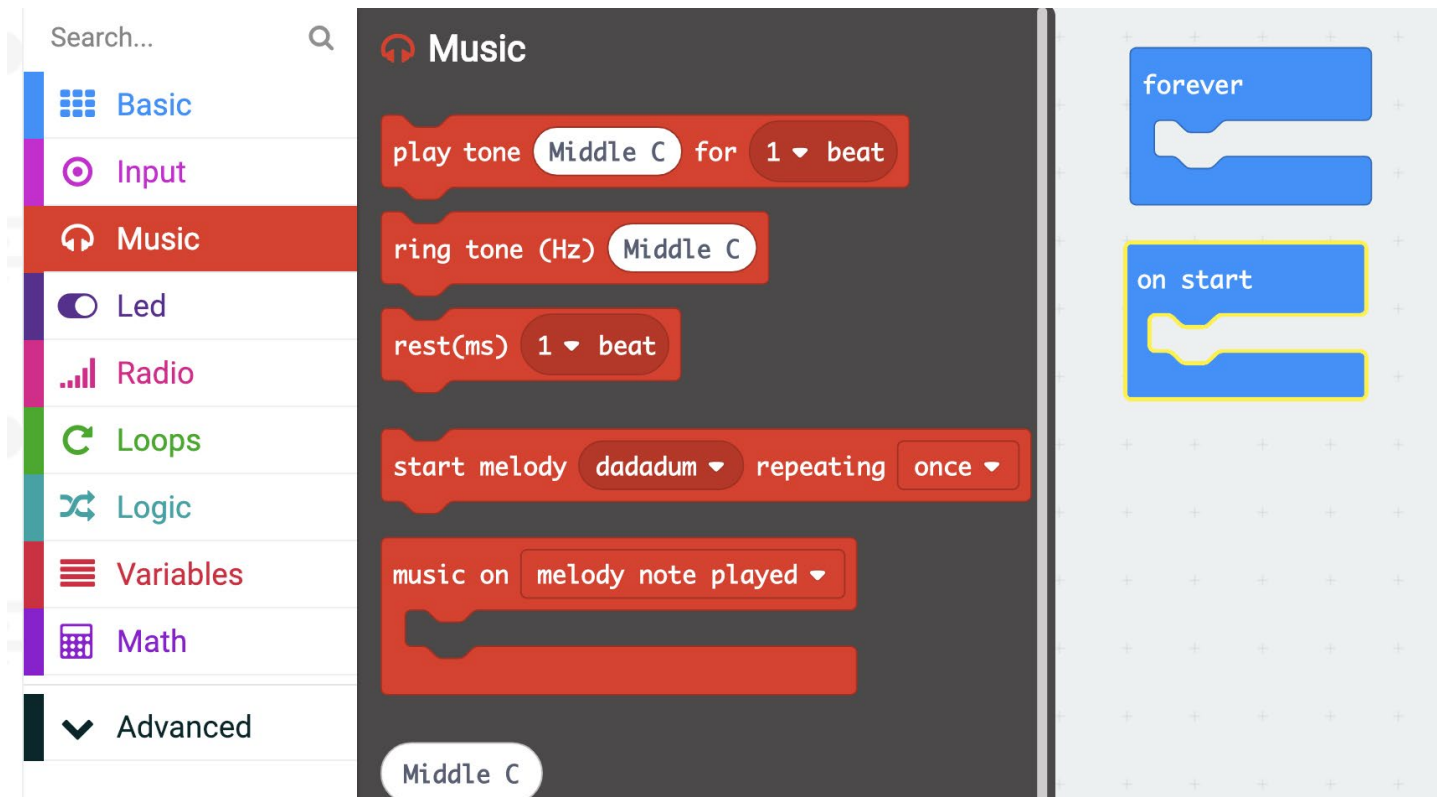
Lesson 13

# Writing Efficient Code

- When we write computer programs quite often we need to repeat certain instructions
- Think about a platform game:
  - When the character or sprite moves it repeats the same instruction over and over
  - Rather than writing the same line of code over and over we can make it **loop** (repeat)
  - This makes it much faster to code and more **efficient**
- The use of loops in computer programming is called **iteration** – the process of repeating something

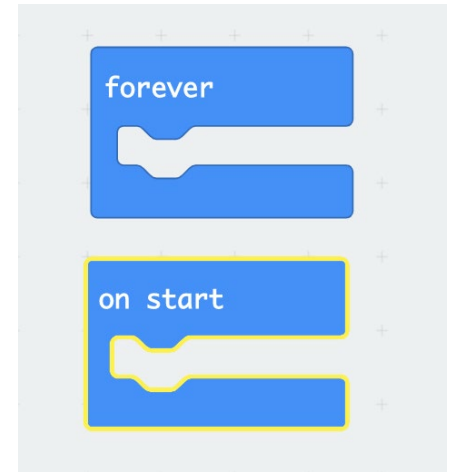
# Using the micro:bit to Make music

- Today you are going to produce your own piece of music using the MakeCode website
- You are going to use the **Music** category



# The micro:bit and Loops

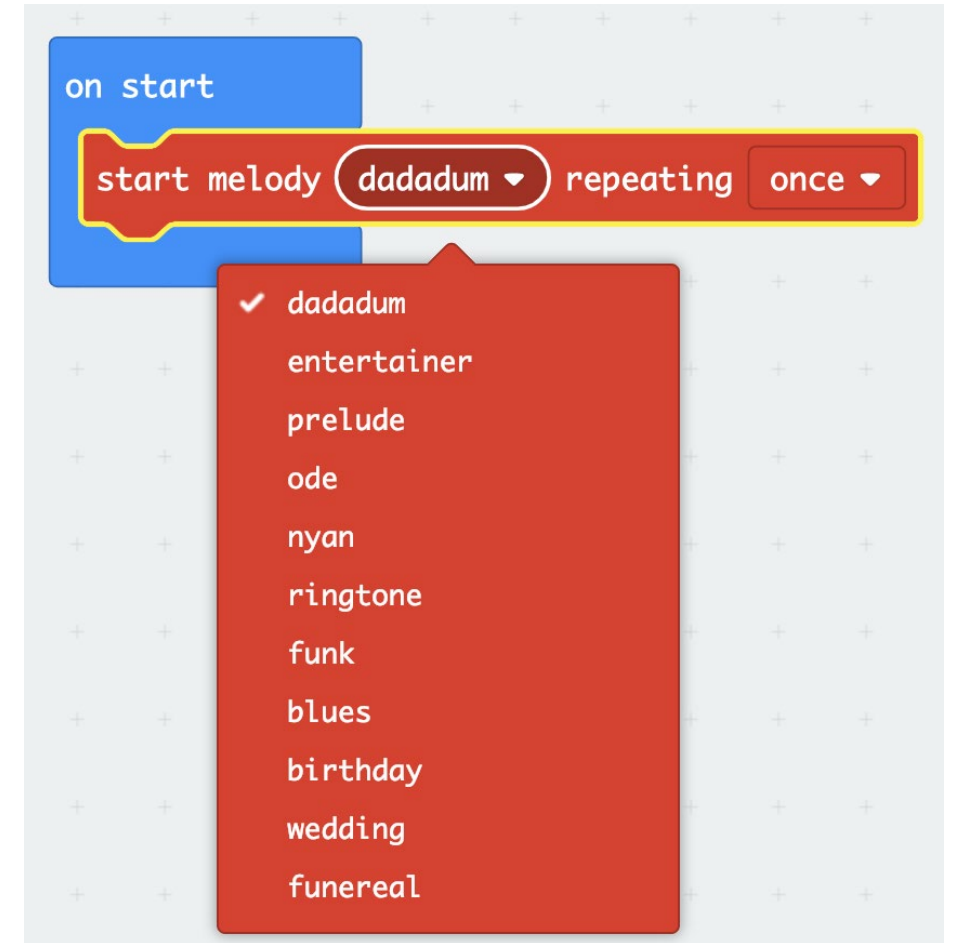
- When you first launch MakeCode there are two empty blocks:
  - *on start* – this block will run the code once and then stop
  - *forever* – this block is a loop and will run any code inside of it over and over



# Making Music

- The *start melody* block has been placed inside the *on start* block
- You can select the melody to play by clicking on the **dadadum** dropdown
- You can also make the code repeat by changing the **once** drop down

You should now work through the making music worksheet to produce your own piece of music



Thank You

Danke

Merci

谢谢

ありがとう

Gracias

Kiitos

감사합니다

धन्यवाद

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