

Making Music With BYOB (2)

Doing The Rounds

Once you've played Twinkle Twinkle Little Star as a round you should be able to tackle some more challenging songs.

The key is to remember the **ALGORITHM** involved and follow it every time for each song. It has 7 stages:



Stage 1: Translate the music into BYOB commands. This means working out the Note Number and Beats for each note on the music.

Stage 2: Create the commands for each line of the song. Test them to make sure they sound correct.

Stage 3: Check that the **total number of beats** played for each line is the same. If not, your round won't work.

Stage 4: Create 'songline' blocks for each line. If a line is the same as a previous one, you don't need to make a new block.

Stage 5: Call the 'songline' blocks in the right order to play the song. If it works, put them together in a 'wholesong' block.

Stage 6: Make a 'leader' block. This is the same as the 'wholesong' block, but has messages broadcast between each line block. These are used to start each of the other sprites playing at the correct time when you start playing a round.

Stage 7: Create several sprites. For each, set a different instrument. When they receive the right message they call the 'wholesong' block.



Overleaf are several famous rounds. As you work through them they introduce new ideas about musical symbols and notes. You don't have to be able to read music to tackle them but they do get harder, so try them in this order:


- Three Blind Mice
 - Row, Row, Row Your Boat
 - Frere Jaques
 - London's Burning
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Recognizing different notes with different beats

Whilst you may not be able to read music, with these few facts you should be able to work out the correct length for any new notes you come across.

Each of the five notes shown here plays for half (.5) a beat.



A dot after the note makes it half as long again. The dot here would make the  crotchet (1 beat) play for 1.5 beats instead.

And this note would be 3 beats because a minim plays for 2 beats.



Challenge 1: Three Blind Mice

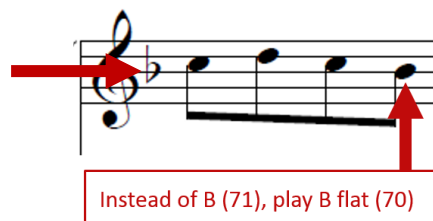
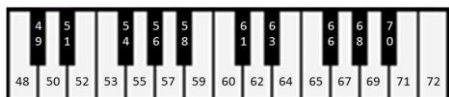


Challenge 2: Row, Row, Row Your Boat



Playing black keys

Black keys are known as sharps and flats. This sign at the start tells you to play every note on that line as a flat. A flat is the black key



Challenge 3: Frere Jacques

Take care. Watch out for the flat note!



Challenge 4: London's Burning

You will all probably know the tune to the most famous round of all: London's Burning.



But can you work out a way to code it, without having a copy of the music?