Max’s Musical Maths: Composing with Rhythms

Learning objective: To understand how to compose a simple rhythmic sequence by using mathematical fractions to ensure each bar adds up to four beats.

Max the monkey has discovered that music is just like a maths puzzle! In 4/4 time, every bar must equal exactly four beats. Use the 'word bank' of musical notes to fill in the missing beats in the bars below. Each note has a specific value: Crotchet = 1 beat, Minim = 2 beats, Semibreve = 4 beats, Quaver = 0.5 beats.

Word bank: Crotchet (1) · Minim (2) · Semibreve (4) · Quaver (0.5)

1. Bar 1: You have a Minim (2 beats) and a Crotchet (1 beat). How many more beats do you need to complete the bar of 4? Which note would you add? (2 marks)

2. Bar 2: You have four Quavers. How many beats does this equal in total? Can you add a Semibreve to this bar? Explain why or why not. (2 marks)

3. Bar 3: Max wants to use only Crotchets. How many Crotchets does he need to fill a whole bar? (2 marks)

4. Bar 4: If you have a Semibreve, how many beats are left in the bar? Show your working out. (2 marks)

5. Composition Task: Create your own 4-beat rhythm pattern using a mix of at least three different note types from the bank. Write them in order. (2 marks)

Draw: Draw a musical stave and place your rhythm pattern from the final question onto the lines using musical note symbols.

Extension challenge: Try to clap your rhythm pattern out loud. If you were to double the tempo (speed), how would that change the way you hear the beats?