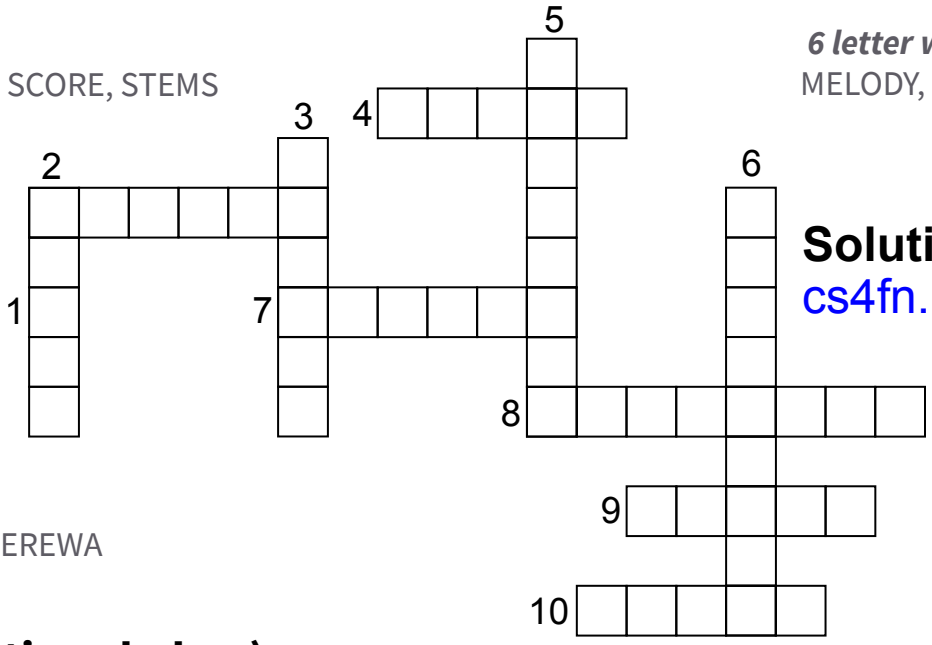
# Music and AI Kriss Kross

Each word will fit *correctly* into *one* block of squares and another word will cross through it, sharing a letter. Although there might be three spaces that a 6-letter word *could* fit in, only one will be the right one for that word. There is only one place the 9-letter word can fit, so start with that one.

***5 letter words***
NOTES, PITCH, SCORE, STEMS

***6 letter words***
MELODY, OCTAVE, SOURCE




**Solution** at
cs4fn.blog/bitof6

***8 letter words***
DECIBELS, SEPEREWA

***9 letter word***
ALGORITHM

## Clues (instructions below)

**1.** _ _ _ _ _ (5 letters) a piece of text with musical symbols instead of letters that tells a performer which notes to play, also a piece of music that accompanies a film.

**2.** and **10.** _ _ _ _ _ _ (6 letters) separation is when computer scientists use AI to take a piece of music and split it into its _ _ _ _ _ (5 letters).

**3.** The _ _ _ _ _ _ (6 letters) is the main part of the tune you might sing along to.

**4.** A piece of music is made up of lots of different _ _ _ _ _ (5 letters)

**5.** We measure how loud something is in _ _ _ _ _ _ _ _ (8 letters)

**6.** A sequence of instructions that tell a computer what to do _ _ _ _ _ _ _ _ _ (9 letters)

**7.** If you halve the length of a guitar string the note is an _ _ _ _ _ _ (6 letters)

**8.** A guitar-like harp-lute from Ghana _ _ _ _ _ _ _ _ (8 letters)

**9.** How high or how low a musical note is _ _ _ _ _ (5 letters)

**10.** (see **2.**)

Credit: https://puzzlemaker.discoveryeducation.com/criss-cross/

**Solving a Kriss Kross Puzzle: an introduction to logical thinking**
Solve these word puzzles as a way to develop the logical thinking and pattern matching skills needed to enjoy both computing and maths, while practicing reading, writing and spelling (see also our maths kriss kross puzzles at the link below). Kriss kross puzzles combine a love of words with a love of logic. Given a list of words of different lengths, you must fit them all in to the grid.

**How to start the puzzle**
If there is only one word of any length left then find the blank word in the grid of that length and the word goes there. There isn't anywhere else it can go! If you know some letters of a word in the grid then count how many letters long it is and compare the unused words of that length with the pattern of known letters. If only one matches you have found where it goes. Otherwise you need more information so try another word.

*Learn about*: computational thinking, logical thinking, pattern matching

*For teachers*:
Teach as part of computing, maths, english, or linked to a theme (we have Egyptian and Roman-themed puzzles for example).

More Kriss Kross puzzles: https://teachinglondoncomputing.org/kriss-kross-puzzles/

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