The decision tree: how a song takes shape Third Year of Middle School · Composition workshop with DAWs · Three 45-minute sessions A song does not start with just one right idea: every decision opens up possibilities. We start with a message, imagine different paths, listen to two alternatives and choose one, explaining why. The branches can meet again: you can go back, change a choice and create a different version.

The task Work in groups to create an original song lasting 45–60 seconds, with short lyrics, rhythm, chords and melody, and a second version lasting 15–20 seconds that changes just one choice. Keep your decision tree, including the branches you did not choose.

Before you begin • DAW stands for Digital Audio Workstation: a workspace for recording, arranging tracks, using virtual instruments and editing sounds. Use the DAW already approved by your school; you do not need to buy a program.

• Options: GarageBand on school iPads; LMMS on computers for virtual instruments and sequences; an online workspace such as BandLab only if approved and with accounts managed by the school. To use a voice recording in LMMS, record it with another tool and import it as an audio file.

• Work in groups of 3–4, with members responsible for rhythm, melody/chords, lyrics and the final listening check. Rotate the roles. Anyone who does not want to record their voice can play, write, program or handle the editing.

• Suggested starting setup: 4/4, 100 BPM, an eighth-note grid, and the metronome on during recording. One bar lasts 2.4 seconds: 20–24 bars last about 48–58 seconds. Keep the volume moderate.

Branching thinking MESSAGE → RHYTHM A/B → HARMONY A/B → MELODY A/B → STRUCTURE → TONE COLOURS → COMPARISON

Draw the branching points with arrows. The paths are possibilities to explore, not a ranking of right and wrong ideas. Two choices at each of three branching points produce eight possible paths.

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Message and rhythm 1. The message: what do we want to say? • Welcoming others: ‘There’s room for you too’

• The environment: ‘A small action changes tomorrow’

• Digital citizenship: ‘Before I share, I stop and think’

Write a title and four original lines. Create two possible choruses; choose one because its message is clear and respectful, not because it rhymes at all costs.

2. The rhythm: steady or syncopated? • A: a regular beat; kick drum on 1 and 3, snare drum on 2 and 4

• B: the same speed, with a kick drum hit also on the offbeat after 2

Listen to the two rhythm examples while counting 1-and-2-and-3-and-4-and. Program two bars, duplicate them and change just one hit in the second version. Syncopation shifts an accent onto a weak part of the beat: it does not mean going faster.

Audio examples: rhythms A and B On the online page, you will find two original clips lasting about 10 seconds. A keeps a regular rhythm; B adds a hit on the offbeat. Count together and describe the difference without changing speed.

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Harmony and melody 3. Harmony: two possible colours • A: Do–Sol–La minore–Fa (C–G–Am–F), one chord per bar

• B: La minore–Fa–Do–Sol (Am–F–C–G), one chord per bar

The two progressions use the same chords, but change the starting point and direction. Enter the triads in the piano roll: Do = do-mi-sol; Sol = sol-si-re; La minore = la-do-mi; Fa = fa-la-do. There is no rule that ‘major is happy, minor is sad’: compare your impressions.

4. Melody: repetition or response? • A: a short idea returns almost unchanged

• B: the first phrase receives a varied response

Over C–G–Am–F, try do-re-mi-sol | sol-mi-re-do | la-do-mi-do | fa-mi-re-do. In the variation, change the ending, the length of two notes or the direction they move in. Sing in a comfortable range; you can transpose or use a virtual instrument. Passing notes do not all have to match the chord.

Audio examples: harmony and melody Compare the two harmonies and then the two melodies. The examples use synthesised sounds rather than a singing voice. A note can act as a passing note: not every note needs to belong to the chord.

Guiding question Which version best supports your lyrics? What other choice might make you change your mind?

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Structure, tone colours and editing 5. Structure and tone colours: how does the piece develop? • Intro 2 bars + verse 8 + chorus 8 + ending 2 = 20 bars

• Chorus 8 + verse 8 + chorus 8 = 24 bars

• Voice and keyboard, or voice, bass and percussion; alternatively, an instrumental melody with the lyrics read separately

Choose a structure and draw it using colours. Bring a track in or take it out to distinguish the sections. In a second version, change one tone colour without changing the notes or rhythm.

6. Editing: what do we keep, and what do we revise? • Voice in the foreground and instruments quieter

• A clear-cut ending or a short fade-out

• Second version: change only the rhythm, harmony, melody or tone colour

Listen through the speakers too: can you understand the words? Avoid levels in the red and distortion. Save the project, export it as WAV or MP3 if available, and compare the two versions at a similar volume. Keep your attempts: a branch you did not choose is not a mistake.

Three 45-minute sessions

Session 1 · Opening up the branches 5 min: what makes a song recognisable? Listen to the A/B pairs. · 10 min: choose a message, write two choruses and draw at least two branches each for rhythm, harmony and melody. · 10 min: audience/class activity: one group keeps the beat by tapping their legs with their hands, another taps beats 2 and 4, and a third tries the offbeat after 2. Swap roles; you can also follow along with silent gestures. · 15 min: set up the DAW and create two four-bar rhythm alternatives. · 5 min: save and note down your first decision: ‘We chose… because…; the alternative would be…’.

Session 2 · Building the song 5 min: listen to your attempts again and assign new roles. · 10 min: enter chords and try two melodic ideas; change just one variable for comparison. · 10 min: write or refine the lyrics, checking word stresses and the clarity of the message. · 15 min: record a voice or instrument, put the sections together and balance the volume levels. · 5 min: save a version A and note down the branches you chose and those you left open.

Session 3 · Comparing and sharing 10 min: create a version B lasting 15–20 seconds with just one choice changed. · 10 min: finish editing, export and complete the credits for the materials. · 15 min: listen to each group’s work; classmates identify a choice they recognised, an effect they noticed and a question, without popularity rankings. · 5 min: discuss inclusion, rights and privacy before any possible sharing. · 5 min: hand in the tree, project, two audio files, lyrics and self-assessment.

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Subject links and citizenship Italian Writing original lyrics: imagery, rhymes, stresses and the relationship between syllables and rhythm. Rewrite the same message as a storytelling verse or a chorus slogan and compare the effect.

Mathematics Rhythmic fractions and duration: at 100 BPM, one beat lasts 60/100 = 0.6 seconds; in 4/4, one bar lasts 2.4 seconds. Calculate the length and the possible combinations: two rhythms × two harmonies × two melodies = eight paths, before choosing the tone colours.

Technology and science Sound waves, pitch, intensity, recording and non-destructive editing. Compare an isolated track with the mix; distinguish volume from pitch. Save separate versions and organise the files with clear names.

Art and design Draw the tree using consistent colours for rhythm, harmony and melody; invent an original cover that represents the message, without using photos of classmates without permission.

English Prepare a short glossary: track = an audio track, loop = a repeated cycle, beat = a steady pulse, mute = silence the sound, export = save as an output file. Write a short bilingual chorus if the group wishes.

History and music Link repetition and response to blues and jazz, and editing to electronic music: a DAW does not replace listening; it makes choices visible and editable.

Citizenship education: an agreement for creating together • Article 3 of the Constitution: make participation possible for everyone. Provide written instructions, readable text, visual rhythm cues and different roles; do not force anyone to sing or publish their voice.

• Article 21: express an idea responsibly. The chorus can be about peace, respect, the environment or tackling cyberbullying, without insults or stereotypes. Criticising a musical choice does not mean judging the person.

• Copyright: use original melodies and lyrics or materials with a licence that allows your intended use. ‘Free of charge’ does not mean ‘free of rights’: check the licence and attribution requirements, noting the creator, source and licence of each loop. Do not download samples from commercial songs just because it is convenient.

• Privacy and digital citizenship: the assignment stays within the school’s environment. Record and share voices or images only in line with the school’s permissions; do not include surnames or personal details in the files. Any publication requires a teacher’s review.

• Shared decisions: each member suggests at least one branch; explain the choice and listen to those who disagree. If two ideas are valid, keep both in A and B. Finish with three specific group commitments.

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Worksheet and self-assessment • Title and message:

_____

• Group and roles (no personal details in the public version): _____

• Rhythm: alternative A _____ / B _____ / choice and reason _____

• Harmony: alternative A _____ / B _____ / choice and reason _____

• Melody: alternative A _____ / B _____ / choice and reason _____

• Structure and tone colours: _____

• In version B we change only _____; the effect we want is _____

• External materials: creator _____ / source _____ / licence _____

• One barrier to participation and our solution: _____

• After comparing, we would like to revise: _____

Final reflection • I explored at least two alternatives and can explain a choice using musical terms.

• I recognise the beat, chords, melody and sections in our piece.

• I can say what changes between A and B and what stays the same.

• I listened to my classmates, respected different roles and checked sources and permissions.

For each statement, select: still to try / with help / independently, and give a specific example. You are not assessed on how popular the song becomes.

Online audio and materials Open the workshop with the six audio examples

The PDF does not contain embedded audio: you can listen to the examples on the page from which you download this worksheet. The clips are original teaching examples, not extracts from commercial songs.

Sources and tools LMMS · manual

GarageBand for iPad · guide

BandLab · support (English)

Constitution · Article 3

Constitution · Article 21

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