



An introduction to music in the primary school curriculum for non-specialist teachers



School resources

The idea that musicianship is only something a talented minority can achieve has long been replaced in the literature with the idea that all human beings are hard-wired for music and that all children, given the right environment, can become musical¹. One of the key goals of music education is to provide students with experiences in and with sound – music’s raw material. A student becomes sensitive to the world of sound as they develop musicianship skills such as keeping a beat, clapping a rhythm, following the rise and fall of pitch through listening, singing, and playing, and responding to the particular colours (timbres) of musical instruments and the human voice: in short, in coming to understand how music is a unique form of human communication. This guide will introduce some of the key concepts and skills in music education for primary school, and then demonstrate how non-specialist music teachers can explore these ideas with students in a sample lesson on graphic notation and the elements of music.

Stages of development in learning music

In music education, the most significant theory of musical development is that proposed by Swanwick and Tillman². Their model was developed utilising a large amount of data from the composition work of children aged 3-11 and was an application to music education of some of the ideas of Piaget. As a result of this research, four levels or stages of musical development are hypothesised as a spiral through which children might move in a series of developmental modes. The four key stages of development are **mastery, imitation, imaginative play, and metacognition**, and these terms indicate the mode of engagement a child can have with music in an ideal music education scenario. Somewhat counter-intuitively, the first stage is titled ‘mastery’ and involves ‘the simple sensory response to and the control of sound’. The next stage, imitation, ‘describes how children attempt to represent the world around them by musical means: imaginative play involves a creative musical contribution on the part of the child, over and above simple imitation’, and metacognition describes ‘the child’s awareness of her own musical thinking and experience’³. At each of the stages, the theory suggests that certain types of musical experiences focusing sequentially on **music materials, expression, form, and value** will be most important, as well as a gradual shift from an individual focus to social sharing of musical ideas and experiences⁴.

It is important to note that the stages and modes are not theorised as hard and fast, and when students are exposed to different sorts of musical challenges (for example, performing compared to composing) they are likely to need to move through the stages again, albeit more quickly. In summary, the model proposes that the development of musicianship and musical thinking involves a series of qualitative shifts, moving from students’ **exploration of sounds** to **manipulative control** which provides the means for **musical expression**, at first spontaneous and personalised, but later using recognised conventions of musical style (for example, logical, balanced ‘statement and answer’ musical phrases). These expressions become assimilated into what is recognisable as **musical form** or structure, and students may even deviate imaginatively from recognised norms (for example, an unexpected phrase ending), while growing in confidence in styles or idioms that they recognise as having **meaning and value** for them. Keeping the model in mind is useful while traversing the multitude of possibilities for music in the classroom. Moreover, the idea of stages informs the broadly sequential outcome progressions in the New Zealand Curriculum, which moves from sensory exploration to manipulative control of sound,

and from personal expressiveness stages towards more systematic understanding and control of music elements⁵.

Key principles of teaching music

Music, like any other subject, needs to be sequentially and regularly taught if students are to develop musical intelligence or musicianship. Moreover, the more students have access to music in a systematic way, the more chances they have to develop musical understanding⁶. Therefore, a teacher's knowledgeable and regular interventions are pivotal for musical development. Any planning for teaching should start with the key question: 'what is it I want my students to learn?' In answering this question, it is important to bear in mind that there are primarily three types of knowledge involved in any learning context – **conceptual knowledge (concepts), declarative knowledge (facts), and competencies (skills)**. Cognitive science informs us that it is especially important to connect competencies and skills, which may be thought of as 'know-how-to', to concepts and content, which may be thought of as 'knowledge-that'. Otherwise, there is the risk of learning being superficial rather than deep⁷.

In the sample music lesson outlined below, students explore the **concepts** of pitch, duration, timbre, texture, dynamics, articulation, and form - often collectively clumped together as 'The Elements of Music' - by using the **content** of graphic notation and the **competence/skill** of vocalisation as they respond to the idea of interpreting visual symbols as sound. In doing so, they also learn that music is sound organised in certain ways, and that music can be thought of as comprising a number of concepts that might be common to all sorts of music from round the world.

Lesson exemplar: The elements of music through graphic notation

The following sample lesson demonstrates how a lesson may be designed to incorporate the three types of knowledge described above – conceptual knowledge, content or factual knowledge, and skills. The objective of this lesson is to enable students to explore sound and musical form. As using graphic notation is often recognised in music education as a 'way in' for all students, since no knowledge of traditional western music notation is required, this proposition statement about the topic guided the planning and the learning intentions: **Graphic notation is a means to explore sound and to develop the understanding that music elements combine to create a musical form that can be visually represented.**

Musical form: Music is symbiotically connected with listening and a significant part of a music curriculum involves guiding students towards developing this skill. Students need scaffolding in regard to what to listen for as a musician and how to do it⁸. Part of learning to listen musically involves drawing students' attention to the interesting timbral qualities of sounds, both individually and in combination. Sound is ordered in some way for creative purposes. We call this dimension of music its form.

Graphic notation: In a subject like music, it is generally agreed that students should experience and experiment with sound before learning about symbols. As with learning a language, we learn to make sounds before we learn to read. In the upper primary to middle years of school, however, forms of notation can be a useful stimulus for creative development and assist students in extending and developing creative ideas when using sounds. In the lesson exemplar outlined below, students are given the opportunity to decode, interpret, and perform a piece of music from a graphic score. This lesson in interpreting graphic symbols will have ideally been preceded by some lessons which freely explore the elements of music and their parameters, and some lessons where students create their own soundscape compositions without any notation, perhaps to depict a story or an image given to them by the teacher. But using visual representation can assist students consider more explicitly the possibilities and expressive effects of arranging sounds in particular combinations and sequences⁹, as well as to plan, to

make decisions about what sounds are best for the context, and to understand that sequences of sounds create musical form. Using graphic notation also lays the foundation for the knowledge that, in some cultures, music can be notated so that it can be passed on through the generations with reasonably high degrees of accuracy.

The main content of the lesson focuses on providing students with the opportunity to explore sounds and to make creative decisions about various sound parameters (loud, soft, short, long, high, low and so on) and to come to understand how the sequence suggested in the graphic score creates a musical 'story line' or logic, called form. In the language of musical development provided by Swanwick and Tillman¹⁰, the students are moving through modes of sensory and manipulative exploration of **materials**, experimentation with personal and conventional forms of **expression**, and possibly on to creative and idiomatic understanding of **form**. Using graphic notation provides students with a wider scope for creative exploration and response than traditional notation, which is far more specific concerning what, when, and how notes are to be played.

Lesson Design

Proposition: Graphic notation is a means to explore sound and to develop the understanding that music elements combine to create a musical form that can be visually represented.

Key subject concept(s):

- Form
- The Elements of Music
- Graphic Notation
- Organised Sound

Related subject concepts/skills (knowledge-that, know-how-to, or both):

- pitch, duration, timbre, texture, dynamics, articulation, sound parameters, score, system, vocalisation

Intended learning outcomes:

At the end of this lesson, students will

- know that music is made up of a number of common elements
- know that music is sound organised in some way
- know that music can be visually represented using graphic notation
- know how to name some of the elements of music and relate these to notational symbols used in graphic notation
- know how to demonstrate some elements of music vocally
- know how to identify some sound parameters of each element
- know how to perform a section of 'Pestilence' in a group

Key content:

- Exploration of some sound parameters of the elements e.g. pitch (high/low), duration (long or short), timbre (growly/smooth), dynamics (loud/soft), articulation (sharp/smooth), texture (thick/thin/number of voices), form (repetition/contrast).
- Exploration of the concepts of pitch, duration, timbre, texture, dynamics, articulation, and form by using a graphic score as a stimulus

Key learning activities (e.g. worksheet, discussion):

- Teacher-led exploration, discussion, and then group activities exploring the elements in relation to the graphic score 'Pestilence'

Main Assessment for Learning activity (how will I know the students have learnt what I wanted them to?):

- The quality of the performance and the perceptiveness of the feedback provided by students in their use (or not) of the language and concepts of the lesson

Resources:

- White board and markers
- Class set of '[Pestilence](#)¹¹' – one per student.

Connection to previous and subsequent lesson(s):

This lesson sets up awareness of the Elements of Music for students which can then be explored in other ways such as listening lessons and other creative activities such as song writing.

Lesson Pedagogy Dimensions

Concept(s)/skill(s): Timbre, Volume/Dynamics, Call and response

Content/activity (5 minutes):

Roll call:

Call the roll using timbre and dynamics imaginatively in a way that sets up some of the dimensions of the lesson: exploring the sound parameters of pitch, duration, timbre, texture, dynamics, and articulation.

- The teacher begins the lesson in a growly (timbre), quiet (dynamic) voice saying 'Kia ora Year 6'.
- The class replies all together in unison with the same dynamic and timbre 'Kia ora Ms Smith'.
- The teacher can do this a number of times demonstrating different timbre and dynamics.
- When it is clear the students understand how to respond by imitating the particular sound (timbre) and volume (dynamic) the teacher calls the roll in a variety of ways (squeaky/growly, spikey/smooth, loudly/softly)
- Class respond all together with either 'present Ms Smith' or 'absent Ms Smith'

Assessment for learning: Can they hear and reproduce the variety of sounds modelled by the teacher? (An informal opportunity for the teacher to observe understanding)

Concept(s)/skill(s): Graphic notation

Content/activity (10 minutes):

Teacher led discussion:

T: 'I'm going to make some gestures with my hands. What do you think these gestures that might indicate if they were sound?'

- high/low sounds - points up in the air, down to ground
- spikey sounds - stabbing gestures
- smooth sounds - traces a gentle wave
- soft sounds - close/bending down small
- getting louder - spreads arms

Copies of 'Pestilence' are handed out

Teacher: 'Can you see any clues on the score of Pestilence that suggest sounds to you? Which ones? What sort of sounds?'

Possible responses:

- loud when its black
- short/spikey for dots on the page
- lines go up and down, pitch goes up and down

Thinking alone and taking time to think, students look at the sheet music of Pestilence and are asked:

What do these images mean?

Look in the top left-hand corner, there is a Poem about Bugs. Who would like to read it?

Invite a student to have a go

Teacher points out the words "drill, bore" etc. in the poem on the score

What is the special word we use for a word that sounds like what it is? (onomatopoeia)

Can you see how the composer showed the onomatopoeia graphically?

Could these images on the page be music?

Concept(s)/skill(s): Elements of music

Content/activity (5 minutes):

Working in groups of four

Sharing with group: support your opinion about whether or not this is music. Give reasons.

Possible responses:

YES

- there are long and short lines which could show duration - how long sounds last
- when the symbols are very dark that could be loud and faint it is soft - dynamics
- there are rests (conventional notation)
- it says high voices and low voices like a choir
- when the line goes from low to high and wiggles that could be change of pitch
- when the line is straight and long that could be a long note
- when the words get bigger and blacker that could be getting louder (crescendo)
- when the words are detached that could be spikey

NO

- because there isn't a staff or a clef or bar lines and it needs those to be music
- there isn't a tune
- there isn't any harmony

Teacher states that musicians usually think that music is 'organised sound' which can be notated in a number of different ways. One way is graphic notation (that is graphic symbols represent sounds).

Concept(s)/skill(s): Elements of music

Content/activity (15 minutes):

Teacher: 'now in your groups please look at one element of music and work out what the composer of Pestilence means by the symbols used'

Group 1 pitch

Group 2 duration

Group 3 timbre

Group 4 dynamics

Group 5 articulation

Group 6 texture

Group spokesperson shares ideas with class

A chart of elements and representations is drawn by students or teacher on board

Element	Definition	Graphic Symbol
Pitch	High/Low	High or low in box

Key learning point: Music is sound 'organised' in some way which can be notated by using graphic notation to show the music's form.

Content/activity (15 minutes):

In groups of four, students decode, devise, and rehearse one **score system** each for performance to the class.

Group 1 system 1, Group 2 system 2 etc.

In each group two students perform the high voices and two, the lower voices.

Students interpret the symbols and choose sounds that they think link with the symbols.

Students practise their line of music individually.

Students put the two lines of music together noting what is happening in each line simultaneously and when they meet up vertically on the score.

Students rehearse putting their line together multiple times, making sure they are varying their voices and lining up as they read the graphic score from left to right.

The teacher will need to support this activity by providing feedback when visiting groups as they work and making sure the students have understood what is required i.e.

- just one system/line of music per group not whole piece
- two groups, high and low voices
- the lines are read from left to right across the page
- the events in the music score also line up vertically
- using parameters which are indicated within each element (high/ low, loud /soft) and these need to be very obvious to the listener
- the groups need to work out how they will start and stop and coordinate when they do things together (watching each other – having a leader/conductor, listening carefully to the other part)

Performance of each group's interpretation of their line of music and feedback/responses from other groups. [Teacher primes students for appropriate manner and content for feedback to peers e.g. the contrasts were exciting]

Assessment for learning:

Students have worked collaboratively

Students have practised being critical listeners

Students have interpreted symbols creatively

Students have analysed their performance

Success criteria:

- Groups have collaborated in a productive way giving each member a chance to air their opinion and do their best
- The students have interpreted the symbols to show (aurally) that they have understood the way graphics have been used to notate sound visually
- They have shown some variety within each element
- They have performed as an ensemble being aware of each other's parts and how the two lines interact and support each other
- They have been a supportive and engaged audience member
- They have performed to the best of their ability
- They have ideas about how to improve for next time
- They have given constructive, insightful, and considered feedback using the appropriate vocabulary

Debrief/'Cognitive strengthening'

Teacher reinforces the key ideas contained in the lesson proposition: *Graphic Notation is a means to explore sound and to develop the understanding that music elements combine to create a musical form that can be visually represented.* For example, check on students' understanding of the Elements of Music and how they have been used to create form (a narrative, a story line in sound)

Next time: Retrieval practice

Revise Elements. In roll call students do the opposite of what the teacher does (high/low)

In groups students prepare a performance of the whole piece with great attention to detail.

There will be half-way performances to give and receive feedback and keep the class focussed on the task.

Students work in groups to set a given text in Graphic notation

- Notate
- Rehearse/Perform
- Swap/Rehearse/Perform

Teacher evaluation of the lesson (follows the delivery of the lesson)

Glossary

Articulation: determines how a sound is attacked or sounded

Dynamics: how (relatively) loudly or softly music is played

Graphic notation: the representation of sounds and their colours and form through graphic means rather than using traditional notes on a staff

Musicianship: musical intelligence, or the ability to engage with and respond to music

Pitch: how (relatively) high or low a note is

Staff: the set of five horizontal lines used in typical Western musical notation

Timbre: the tone colour or quality of a sound

Useful resources

Ministry of Education. Into Music series: Volume 1 (2001), Volume 2 (2002), and Volume 3 (2003).

Ministry of Education (1992). Music education: Standard two to form two: A handbook for teachers. Wellington: Learning Media.

Regelski, T. (2004). Teaching general music in grades 4-8: A musicianship approach. Oxford University Press.

Endnotes

1 Suzuki, S. (1969). Nurtured by Love: A New Approach to Education. New York: Exposition Press; Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books; Jackendoff, R., & Lerdahl, F. (2006). The capacity for music: What is it, and what's special about it? *Cognition*, 100(1), 33-72;

Peretz, I. (2006). The nature of music from a biological perspective. *Cognition* 100, 1-32;

Morley, I. (2014). A multi-disciplinary approach to the origins of music: perspectives from anthropology, archaeology, cognition and behaviour. *Journal of Anthropological Sciences*, 92, 147-177;

Ravignani, A., Delgado, T., and Kirby, S. (2016). Musical evolution in the lab exhibits rhythmic universals. *Nature Human Behaviour*, 1(7), 1-7.

2 Swanwick, K., & Tillman, J. (1986). The sequence of musical development: A study of

children's composing. *British Journal of Music Education*, 3(4), 305-339.

3 Hargreaves, D., & Lamont, A. (2017). *The Psychology of Musical Development*. Cambridge: Cambridge University Press. 2017.

4 Hargreaves and Lamont (2017) give a useful overview of the key aspects of the model: 'At the level of mastery, there is a developmental shift from 'sensory' to 'manipulative' musical behaviour, which arises from a gradual increase in the control of sound production. At the level of imitation, the equivalent shift is from personal expressiveness to the vernacular, which reflects the gradual incorporation of musical conventions such as short melodic and rhythmic sequences. At the level of imaginative play, the shift is from speculative to idiomatic composition, during which a coherent,

conventional musical style is established: and finally, at the fourth level of metacognition, Swanwick and Tillman proposed a shift from symbolic to systematic expression, in which personal, idiosyncratic expression gradually incorporates the stylistic principles underlying a given musical idiom' (p. 18).

- 5 Ministry of Education (2007). *The New Zealand Curriculum*. Wellington: Ministry of Education.
- 6 Hentschke, L. (1993). *Musical development: Testing a model in the audience-listening setting*.
Doctoral thesis, Institute of Education, University of London.
- 7 McPhail, G. (2020). The search for deep learning: A curriculum coherence model. *Journal of Curriculum Studies*, 53 (4), 420-434.
- 8 Regelski, T. (2004). *Teaching general music in grades 4-8: A musicianship approach*. Oxford University Press.
- 9 Ministry of Education, 2002, p. 57.
- 10 Swanwick & Tillman, 1986.
- 11 While every effort was made to locate the copyright holder for this resource, we were unsuccessful.

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