Music Learning Activity Types^{1, 2}

Technology has greatly influenced today's world of music, including the means by which people produce, consume, and share it. Teachers have many options for utilizing technology as a tool to facilitate their students' engagement with and understanding of music. The 69 Music Learning Activity Types that have been identified to date and appear below are designed to help educators connect musical content, pedagogy, and various technologies in authentic ways that enable students to create, perform, and respond to music. Meant to stimulate a teacher's thinking about effective ways to plan music learning that is assisted by digital tools, each activity type is described and then aligned with a list of possible technologies that may be used to support it.

The Music Learning Activity Types Taxonomy is organized in terms of the three artistic processes in which musicians engage: creating, performing and responding to music. This is a well-accepted way to conceptualize musicality (Ernst & Gary, 1965; Shuler, 2011; Shuler & Connealy, 1998). Further, these musical processes provide the organizational structure for the National Standards for Music Education³, the basis for many state and local music curricula. The taxonomy reflects typical creating, performing and responding activities and technologies for beginning to intermediate-level K-12 students. It was derived from an examination and synthesis of the research and pedagogical literature in music teaching and learning, and has undergone peer review.

Successful technology integration in music classrooms requires careful planning of student learning experiences. The Music Learning Activity Types Taxonomy provides guidance for teachers to use when planning lessons that effectively integrate musical content, pedagogy, and technology. When developing lesson plans, teachers often think in terms of types of learning activities that will help students achieve curricular outcomes (John, 2006; Yinger, 1979). An activity type

captures what is most essential about the structure of a particular kind of learning action as it relates to what students do when engaged in that particular learning-related activity (e.g., "group discussion;" "role play;" "field trip"). Activity types are combined to create lesson plans, projects and units (Harris & Hofer, 2009, p. 3).

Choosing from a palette of available activity types that can be selected according to learning goals informed by content standards can allow teachers to more effectively plan lessons that integrate technology, while simultaneously developing their Technology, Pedagogy and Content Knowledge (TPACK)⁴ (Harris & Hofer).

The Music Learning Activity Types follow, organized by the overarching musical processes of *creating, performing,* and *responding to* music, then further delineated by musical actions

² *Music Learning Activity Types* by William I. Bauer, Judi Harris and Mark Hofer is licensed under a <u>Creative Commons</u> <u>Attribution-Noncommercial-No Derivative Works 3.0 United States License</u>. Based on a work at <u>activitytypes.wm.edu</u>.



³ National Standards for Music Education: <u>http://www.nafme.org/resources/view/national-standards-for-music-education</u>

¹ Suggested citation (APA format, 6th ed.): Bauer, W. I., Harris, J., & Hofer, M. (2012, June). *Music learning activity types*. Retrieved from College of William and Mary, School of Education, Learning Activity Types Wiki: http://activitytypes.wm.edu/MusicLearningATs-June2012.pdf

⁴ Also known as "Technological Pedagogical Content Knowledge;" see: <u>http://www.tpack.org/</u>

commonly associated with these processes. The activity types are arranged in a quasihierarchical manner, but it is possible to utilize activities that appear later in the taxonomy prior to those listed earlier.

Each activity type is categorized according to the musical process that is most prominent in its execution. However, it should be noted that nearly all of the music activity types incorporate multiple modes of musicianship simultaneously. For instance, while improvisation is a creative act, it also requires focused listening (Responding) and performance skill (Performing).

Creating Music

Creativity is a much-discussed topic in today's educational milieu, and music is particularly well suited to engaging students in creative activities and thinking. The two primary creative processes in music are improvisation and composition. Improvisation may be defined as the spontaneous creation of new musical ideas, often within a given structure or context. Composition, while similar to improvisation, usually involves revision and refinement of ideas that are often, but not always, set in notation, so that others can perform them. Like any complex skill, both improvisation and composition are comprised of a variety of subcomponents. The activity types in Tables 1 and 2 address discrete components of improvisation and composition that when combined form a holistic approach to helping students to develop and exercise these creative processes.

Activity Type	Brief Description	Possible Technologies
1. Engage in free improvisation	Free improvisation is music improvised without regard for any pre-existing rules. Students at all knowledge and skill levels can participate in free improvisation, with the level of sophistication increasing with experience. Technologies can produce the sound sources and/or a background accompaniment.	Acoustic, electronic and/or digital instruments; digital audio workstations; audio recordings
2. Echo rhythm and tonal patterns	To develop aural skills necessary for improvisation, students echo patterns generated by the teacher, a fellow student, or another source. Technologies can provide the pattern and/or a harmonic/rhythmic accompaniment, and are especially helpful for practice.	Acoustic, electronic and/or digital instruments; audio recorder; audio recording software; auto- accompaniment software; commercial audio recordings; mobile apps
3. Improvise a tonal or rhythmic answer to a tonal/rhythmic prompt	As a beginning improvisatory activity, the teacher, a fellow student, or another source sings or plays a melodic or rhythmic pattern and the student improvises an original response to that pattern. Technologies can provide the	Acoustic, electronic and/or digital instruments; audio recorder; audio recording software; auto- accompaniment software; commercial audio

Table 1: Creating Music – Improvising Activity Types

		1 '1
	pattern and/or a harmonic/rhythmic	recordings; mobile apps
	accompaniment, and are especially	
	helpful for practice.	
4. Perform familiar	Students listen to familiar melodies and	Acoustic, electronic and/or
melodies and/or their	their bass lines performed by the	digital instruments; audio
bass lines by ear	teacher or another source and then	recorder; audio recording
	play/sing them without the aid of	software; auto-
	notation. Technologies can serve as the	accompaniment software;
	melodic source and/or provide a	commercial audio
	harmonic/rhythmic accompaniment,	recordings; mobile apps
	and are especially helpful for practice.	
5. Improvise	Students use a known melody and	Acoustic, electronic and/or
rhythmic and/or	improvise rhythmic and/or melodic	digital instruments; audio
melodic variations	variations of that melody.	recorder; audio recording
on a familiar melody	Technologies can provide a	software; auto-
	harmonic/rhythmic accompaniment,	accompaniment software;
	and are especially helpful for practice.	commercial audio
		recordings; mobile apps
6. Perform melodic	A given melodic pattern (often called a	Acoustic, electronic and/or
patterns in a variety	"lick" in jazz) is played in many	digital instruments; audio
of keys/tonalities	different keys and/or tonalities	recorder; audio recording
		software; auto-
		accompaniment software;
		commercial audio
		recordings; mobile apps
7. Improvise an	Given a standard chord progression	Acoustic, electronic and/or
original melody to a	(e.g., a "blues progression") or ostinato	digital instruments; audio
given	accompaniment, students improvise an	recorder; audio recording
accompaniment	appropriate melody. Technologies can	software; auto-
1	provide the harmonic/rhythmic	accompaniment software;
	accompaniment, and are especially	commercial audio
	helpful for practice.	recordings; mobile apps
8. Transcribe a solo	Notate a solo performance from a	Digital audio recordings,
	recording	digital audio software,
		music notation software
9. Improvise in a	Improvise in an ensemble, listening to	Acoustic, electronic and/or
group	and responding to the musical	digital instruments; auto-
	expressions of other performers.	accompaniment software;
	I the former provided in the second s	commercial audio
		recordings; mobile apps
10. Improvise an	Given a melody, students improvise an	Acoustic, electronic and/or
accompaniment	appropriate harmonic and/or rhythmic	digital instruments; audio
	accompaniment. Technologies can	recorders; audio recording
	provide the melody and/or be used to	and/or auto-accompaniment
	spontaneously create the	software; commercial audio
	accompaniment.	recordings; mobile apps
	accompannient.	recordings, moone apps

Activity Type	Brief Description	Possible Technologies
 Create a loop- based composition Create an ostinato 	Loops, pre-existing sound snippets, can be arranged and combined in a variety of ways by students with little experience in composition, and in a more complex manner by those with greater experience. Often loop-based composition software allows loops to be dragged and dropped into place. Students create a melodic or rhythmic	Acoustic, electronic and/or digital instruments; digital audio workstations; music sequencers; commercial music software; Web sites; mobile apps Acoustic, electronic and/or
	ostinato. Constraints (e.g., using only certain pitches or rhythms) are often helpful at beginning stages.	digital instruments; music notation software; music production software; mobile apps
3. Use non- traditional sounds to create music	Students explore non-traditional electronic and/or acoustic sounds (e.g., sounds created on a synthesizer; sounds recorded from the students' environment) and utilize them in a composition.	Audio recorder, digital instruments, mobile apps, audio recording software, music production software
4. Create or utilize an alternative notation	Students explore alternative ways to notate musical sounds.	Music production software, word processing programs, drawing software
5. Compose an "answer" (consequent) phrase to a given "question" (antecedent) phrase	The student is provided a "question" (antecedent) phrase and composes a corresponding "answer" (consequent) phrase.	Acoustic, electronic and/or digital instruments; music notation software; music production software; mobile apps
6. Compose a melodic variation	Students create a variation on a given melody. They can explore alterations of musical elements (e.g., pitch, duration, timbre). The SCAMPER technique: http://goo.gl/sYCW4 is an approach that has been found effective.	Acoustic, electronic and/or digital instruments; music notation software; music production software; mobile apps
7. Compose using repetition and contrast	Students utilize repetition and contrast in creating a short composition.	Acoustic, electronic and/or digital instruments; music notation software; music production software; mobile apps
8. Create a remix	Students use technology to create an alternate version of a recorded song (remix/mashup), sometimes incorporating multiple songs & unique sounds into the resulting new work.	Software and hardware audio mixers, audio recording hardware and software, digital audio workstations

Table 2: Creating Music – Composing Activity Types

9. Arrange music	Given a composition (e.g., a Bach chorale), students arrange it for other instruments or voices	Electronic and/or digital instruments, music notation software, music production software
10. Compose an accompaniment	Given a melody, students compose an appropriate harmonic and/or rhythmic accompaniment.	Acoustic, electronic and/or digital instruments; music notation software; music production software; mobile apps
11. Create a composition	Students create an original composition. At the beginning stages, providing constraints to students (i.e., certain tonalities, rhythms, number of measures, number of voices, etc.) is good pedagogical practice. Intermediate and advanced students may be allowed more freedom of choice.	Electronic and/or digital instruments, music notation software, music production software
12. Compose a soundtrack	Students compose a soundtrack to a short video.	Electronic and/or digital instruments, music notation software, music production software

Performing Music

Formal and informal musical performance is an activity in which people from all walks of life engage on a daily basis. Ensembles such as bands, orchestras, and choirs provide the most prominent forms of school-based musical performance, while progressive institutions may also include instruction in guitar, piano, and alternative musical ensembles such as rock or mariachi bands. Musical performance involves singing and/or playing an instrument, and often requires the ability to read musical notation. The musical activity types listed in Tables 3, 4, and 5 align common singing, playing, and music reading activities with corresponding technologies that may be used to facilitate their development.

Activity Type	Brief Description	Possible Technologies
1. Sing with a steady beat	Students sing a song, maintaining a steady beat. Technology can provide the accompaniment or help to make the pulse audible.	Audio recordings, metronomes, auto- accompaniment software
2. Sing with appropriate posture, breath support, and diction	Singing fundamentals are crucial to successful performance. Technology can be used to monitor and provide feedback on these fundamental skills. Providing digital audio and/or video models may also be beneficial.	Audio/video recorder, audio/video recordings, audio/video textbook supplements

Tabla	2.1	Darfor	nina	Mug	ia	Sinc	ina	Activity	Tunog
I abie	J. I	CHIOH	mng	1vius	IC –	SIIIS	ging.	Activity	Types

3. Sing individually	Students use technology to provide an accompaniment to singing by oneself and/or learning and practicing a song.	Auto-accompaniment software; karaoke software/machines; audio recordings; acoustic, electronic and/or digital instruments; mobile apps
4. Sing in an ensemble	When singing in an ensemble, a musician must be able to perform a part independently, while simultaneously integrating that part into the overall ensemble performance. Students can learn their parts with the assistance of technology. They can also practice their parts while listening to the other ensemble parts, even though the rest of the ensemble members are not physically present.	Music notation software; music production software; auto-accompaniment software; audio recordings; acoustic, electronic and/or digital instruments; mobile apps; Web sites
5. Sing with technical accuracy	Students sing a solo or ensemble composition with precision vis-a-vis pitch/rhythmic accuracy, unified attacks and releases, balance, blend, and/or intonation. Technology can be used to monitor and provide self, peer, and/or instructor feedback.	Audio recording software, audio recorders, auto- accompaniment software, software that recognizes sung pitches, tuners
6. Sing with expression	Students sing a melodic line with good tone, phrasing, and musical expression (phrasing, dynamics, style, varying vocal timbres, etc.). Technology can be used to monitor and provide self, peer, and/or instructor feedback.	Audio recording software, audio recorders, audio and video recordings
7. Listen to/view vocal/choral models	Modeling is a powerful teaching approach. Students can listen to and view diverse aural and visual models of singing via technology.	Audio and video recordings, video sharing sites, podcasts, video conferencing
8. Respond to the gestures of a conductor when singing	Nonverbal communication via conducting is an important aspect of many formal ensembles' performances. Students can learn about conducting gestures, practice singing to a recorded conductor, and/or monitor their responsiveness to given gestures with the assistance of various technologies.	Video recordings, video recorders, video conferencing, video sharing sites, Web sites
9. Cover a song	Create a new performance of a previously released recording. Sometimes a cover tries to explicitly duplicate the original while in other	Audio recordings, audio recorders, electronic and/or digital instruments and devices (e.g., effects pedals

	instances the cover drastically alters the original's style.	for guitars), mobile apps
10. Participate in vocal clinics and master classes	Singers often learn from expert vocalists and choral conductors in clinic and master class settings. Technology can make such experts who are located at a distance available to students both synchronously and asynchronously.	Video conferencing, video sharing sites

Table 4: Performing Music – Playing Instruments Activity Types

Activity Type	Brief Description	Possible Technologies
1. Play with a steady	Students play music, maintaining a	Audio recordings,
beat	steady beat. Technology can provide the	metronomes;
	accompaniment or help to make the	computer/software-
	pulse audible.	generated accompaniments
2. Play with	The fundamentals of instrumental	Audio/video recorders,
appropriate posture	technique (holding/hand position,	audio/video recordings,
and technical (motor)	embouchure, bow/stick grip, etc.) are	textbook supplements
skills	crucial to successful performance.	
	Technology can be used to monitor and	
	provide feedback on these fundamental	
	skills. Digital audio and/or video	
	models may also be beneficial.	
3. Play individually	Use technology to provide an	Auto-accompaniment
	accompaniment to play by oneself	software; audio recordings;
	and/or to learn and practice a piece of	acoustic, electronic and/or
	music.	digital instruments; mobile
		apps
4. Play in an	When playing in an ensemble, a	Music notation software;
ensemble	musician must be able to carry an	music production software;
	independent part while simultaneously	auto-accompaniment
	integrating that part into the overall	software; audio recordings;
	ensemble performance. An individual's	acoustic, electronic and/or
	part can be learned with the assistance	digital instruments; mobile
	of technology and practiced while	apps; Web sites
	listening to the other ensemble parts,	
	even though the rest of the ensemble	
5 Dlass sec ² (1) (a al. 1)	members are not physically present.	
5. Play with technical	Play music with precision	Audio recording software,
accuracy	(pitch/rhythmic accuracy, unified	audio recorders, auto-
	attacks and releases, balance, blend,	accompaniment software,
	and intonation). Technology can be	tuners, metronomes
	used to monitor and provide self, peer,	
	and/or instructor feedback.	

6. Play with	Students play a melodic line with good	Audio recording software,
expression	tone, phrasing, musical expression, dynamics, style, etc. Technology can be used to monitor and provide self, peer, and/or instructor feedback.	audio recorders, audio and video recordings
7. Listen to/view instrumental models	Modeling is a powerful teaching approach. Students can view numerous and diverse aural and visual models of musical performance via technology.	Audio and video recordings, video sharing sites, podcasts
8. Respond to the gestures of a conductor when playing	Nonverbal communication via conducting is an important aspect of formal ensembles' performances. Students can learn about conducting gestures, practice singing to a recorded conductor, and/or monitor their responsiveness to given gestures with the assistance of various technologies.	Video recording, video recorders, video conferencing, Web sites
9. Cover a song	Create a new performance of a previously released recording. Sometimes a cover tries to explicitly duplicate the original while in other instances the cover drastically alters the original's style.	Audio recordings, audio recorders, electronic and/or digital instruments and devices (e.g., effects pedals for guitars), mobile apps
10. Participate in instrumental clinics and master classes	Instrumentalists often learn from expert vocalists and choral conductors in clinic and master class settings. Technology can make such experts who are located at a distance available to students both synchronously and asynchronously.	Video conferencing, video sharing sites

Table 5: Performing	Music – Reading	and Notating	Music Activity Types
	music recualing	, and i totating	music menting rypes

Activity Type	Brief Description	Possible Technologies
1. Clap/sing with	The use of rhythm syllables associated	Auto-accompaniment
rhythm syllables,	with a specific counting system can	software; audio recordings;
sing/play varying	assist students' understanding in	acoustic, electronic and/or
rhythm patterns	moving from sound to symbol when	digital instruments; mobile
	learning rhythmic notation.	apps; music notation
	Technology can provide a	software; interactive
	rhythmic/harmonic accompaniment to	whiteboards
	this process, aural prompts for	
	individual practice, and produce	
	written notation of rhythm patterns.	
2. Sing with solfège	The use of solfège syllables can assist	Auto-accompaniment
syllables, sing/play	students' understanding in moving	software; audio recordings;

varying pitch patterns 3. Identify and interpret musical symbols	from sound to symbol when learning pitch notation. Technology can provide a rhythmic/harmonic accompaniment to this process, aural prompts for individual practice, and written notation of tonal patterns. Students visually identify and perform musical symbols such as dynamic markings, key signatures, pitch names,	acoustic, electronic and/or digital instruments; mobile apps; music notation software; interactive whiteboards Music theory software, music theory Web sites, sheet music Web sites,
	meters, rhythm values, etc.	music notation software; interactive whiteboards
4. Read standard notation while singing or playing	Students read music notation at increasingly sophisticated levels.	Music notation software, music theory software, music theory or sheet music Web sites, PDF music readers, auto- accompaniment software, interactive whiteboards
5. Sight read accurately	Students read unfamiliar music with accuracy.	Music notation software, music theory software, music theory Web sites, PDF music readers, auto- accompaniment software, interactive whiteboards
6. Aurally identify and/or notate patterns	Students identify the quality of musical patterns (e.g., keys, intervals, chords) and take music dictation. The ability to notate music heard aurally will aid students in their understanding of music notation.	Audio recordings, ear training software and Web sites, music notation software
7. Notate music	Students notate music, increasing their understanding of musical notation and allowing them to perform original and/or unpublished compositions and arrangements with others.	Music notation software; interactive whiteboards

Responding to Music

All people respond to music in a variety of ways. Music educators strive to develop students' abilities to listen to and describe music, analyze and evaluate it, understand its historical and cultural contexts, and appreciate its relationships to other disciplines, including other art forms. Technologies that allow access to, and manipulation of, rich media are especially appropriate for use in learning activities aligned with various means of responding to music.

Activity Type	Brief Description	Possible Technologies
1. Listen repeatedly	Students gain familiarity with new	Audio/video recordings,
1. Listen repeatedry	musical compositions through	music and video sharing
		_
	repeated listening.	sites
2. Listen to examples	Students consider positive and	Audio/video recordings,
	negative examples of musical	music and video sharing
	concepts, elements, and styles.	sites, podcasts
	Students listen to exemplary	
	performers on their chosen	
	instrument/voice.	
3. Guided listening	Students follow an iconic	Presentation software, word
	representation of a musical	processing programs,
	composition (e.g., a listening map; a	concept mapping software,
	standard notation/score) while	drawing software, podcasts,
	listening.	notation software
4. Listen to, describe,	Students use musical vocabulary	Audio/video recordings,
and discuss music	when discussing live or recorded	music and video sharing
	music of varying styles and genres.	sites, discussion forums,
	For instance, students may describe	blogs
	and discuss how a composer uses the	8-
	musical elements (pitch, duration,	
	loudness, timbre, texture, form) in a	
	composition to create a unique,	
	interesting, expressive piece of music.	
5. Listen and reflect		Andio / video necendines
5. Listen and reflect	Students keep a written and/or audio	Audio/video recordings,
	listening journal.	music and video sharing
		sites, audio recording
		software/devices, word
		processing programs, blogs,
		discussion forums, podcasts

Table 6: Responding to Music – Listening and Describing Activity Types

Table 7: Responding to Music – Analyzing Music Activity Types

Activity Type	Brief Description	Possible Technologies
1. Move in response	Students communicate various	Audio/video recordings,
to music	musical characteristics (steady beat,	video recorder, music &
	phrases, high/low pitch, etc.) through	movement videogames
	movements that might include	
	walking, running, patting, clapping,	
	conducting, gesturing, and so on.	
	Technologies can provide the musical	
	source material for this activity type.	
	Video technologies could provide	
	models of various movements (e.g.,	

used to document/assess movements.	
Students aurally and/or visually locate	Music notation software,
aspects of music such as musical	audio/video recordings,
intervals, tempo changes, phrases, key	audio/video sharing sites,
& time signatures, dynamic markings,	sheet music sharing sites,
forms, instrumentation, etc., using	online music glossaries and
musical terms to label them.	encyclopedias
Students aurally and/or visually	Audio/video recordings,
analyze music to describe and discuss	audio/video sharing sites,
how musical elements (pitch, duration,	sheet music sharing sites,
loudness, timbre, texture, form) relate	word processing programs,
to a composition's style and genre.	discussion forums, music
How do composers utilize musical	notation software, wikis
structures and functions to create	
expressivity and musical affect?	
Students analyze a piece of music	Music theory software,
comprehensively. For example,	music theory Web sites,
students could develop a formal	word processing programs,
theoretical analysis, create an icon	concept mapping software,
chart or other graphical representation	drawing software, music
of a piece, or analyze the audio	notation software, digital
waveforms of a musical composition.	audio software
Based upon analysis, students	Audio recording software,
determine how a composition will be	audio recordings, audio
performed. The interpretation could be	recorders, acoustic,
demonstrated, presented using various	electronic and/or digital
media, and/or described in written or	instruments, presentation
verbal form.	software, word processing
	programs
	Students aurally and/or visually locate aspects of music such as musical intervals, tempo changes, phrases, key & time signatures, dynamic markings, forms, instrumentation, etc., using musical terms to label them. Students aurally and/or visually analyze music to describe and discuss how musical elements (pitch, duration, loudness, timbre, texture, form) relate to a composition's style and genre. How do composers utilize musical structures and functions to create expressivity and musical affect? Students analyze a piece of music comprehensively. For example, students could develop a formal theoretical analysis, create an icon chart or other graphical representation of a piece, or analyze the audio waveforms of a musical composition. Based upon analysis, students determine how a composition will be performed. The interpretation could be demonstrated, presented using various media, and/or described in written or

Table 8: Responding to Music – Evaluating Music Activity Types

Activity Type	Brief Description	Possible Technologies
1. Develop criteria for	Students develop evaluation criteria	Word processing programs,
evaluating a musical	independently, as a group, and/or	interactive whiteboards,
performance,	with the assistance of the teacher For	rubric Web sites
improvisation,	example, this could take the form of a	
composition, or	checklist, rating scale, or rubric.	
arrangement		
2. Critique a musical	Students engage in self, peer, and/or	Audio/video recordings,
performance,	large-group critique. This could be	audio/video recorders,
improvisation,	deductive, utilizing a previously	discussion forums, blogs,
composition, or	developed form (e.g., checklist, rating	digital/electronic tuners,
arrangement	scale, or rubric), or inductive (e.g.,	auto-accompaniment
	discussion-based).	software

3. Provide constructive suggestions for improvement of a musical performance, improvisation, composition, or arrangement	Students demonstrate suggestions and/or provide verbal or written feedback designed to improve their own, peers', and/or group musical outcomes.	Audio/video recordings, audio/video recorders, word processing programs, blogs, discussion forum, wikis
4. Create a musical portfolio	Students create and select digital artifacts that represent their musical achievement in relation to outcomes or standards.	Web authoring software, wikis, blogs, music notation software, audio/video recording software, scanners

The interdisciplinary study of music is popular in some school settings, particularly at the elementary and middle school levels. Two of the National Music Standards have strong interdisciplinary connotations⁵. Music learning can include information about and experiences with other disciplines that inform musical understanding. Likewise, music can be used to provide additional perspectives for subjects other than music. It should be noted, however, that when interdisciplinary approaches are utilized, the musical content must be treated in an authentic, meaningful manner. For example, while music may be used as a memory device to help one learn the state capitals, there is little, if any, true learning about music occurring when the musical mnemonic is being learned or later used.

A few ways in which technology may assist students' learning in interdisciplinary music activities are listed below. In addition, other activity types taxonomies can be used to plan the interdisciplinary study of music. For example, most of the content of the <u>Social Studies Learning Activity Types</u> would be applicable when students are studying historical and sociological aspects of music. When planning lessons, projects, or units that address other specialized topics (e.g., the science of acoustics; the interpretation of texts in choral literature) it might be helpful to consult the <u>Visual Arts Learning Activity Types</u>, <u>Science Learning Activity Types</u>, <u>Mathematics Learning Activity Types</u>, <u>K-6 Literacy Learning Activity Types</u>, and/or <u>Secondary English Language Arts Learning Activity Types</u> taxonomies.

Table 9: Responding to Music – Relationships Among Music, the other Arts, and non-Arts-based Disciplines Activity Types

Activity Type	Brief Description	Possible Technologies
1. Examine the	Students experience various art	Audio/video recordings,
similarities and	forms (e.g., dance, theater, visual art,	audio/video sharing sites,
differences between	and literature) and compare and	presentation software, Web
music and other art	contrast the artistic processes and	sites, wikis, e-books,
forms	products in these disciplines to those	interactive whiteboards
	in music.	

⁵ Standards 8 (Understanding relationships between music, the other arts, and disciplines outside the arts) and 9 (Understanding music in relation to history and culture). See <u>http://www.nafme.org/resources/view/national-standards-for-music-education</u>.

2. Describe the role of music in everyday life and its use in society	Students observe and document the ways in which music is part of their everyday lives (e.g., in the general soundscape, movies, television shows, advertising, etc.). Examples of possible forms of documentation could include presentations, audio collages, online discussions, or blog posts.	Presentation software, video/audio recorders, audio/video editing software, discussion fora, blogs
3. Describe why music is important personally	Students document why music has personal importance and meaning to them. Possible forms of documentation could include live presentations or standalone audio, video, or text formats.	Presentation software, video/audio recorders, audio/video editing software, word processing programs, discussion fora, blogs

Table 10: Responding to Music – Relationships Among Music, History, and Culture Activity Types

Activity Type	Brief Description	Possible Technologies
1. Describe the various	Music is used in many different	Audio/video recordings,
ways music is used in	ways (e.g., ceremonial, personal	audio/video sharing sites,
the world	pleasure, work songs,	presentation software, Web
	entertainment, religious, group	sites, wikis, e-books,
	identity). With this activity type,	interactive whiteboards,
	students describe how music and	discussion fora
	people (including concert	
	audiences) interact in disparate	
	musical environments. Students	
	address how responding to music	
	is an essential part of being	
	human.	
2. Discuss the lives of	Students use digital and nondigital	Audio/video recordings,
musicians throughout	technologies to access information	audio/video sharing sites,
history, including the	about musical composers,	presentation software, Web
social and political	conductors, and/or performers and	sites, wikis, e-books,
events that impacted	document the understanding that	interactive whiteboards,
them.	they are building.	discussion fora
3. Describe the	Students use digital and nondigital	Audio/video recordings,
historical, social, and	technologies to access information	audio/video sharing sites,
cultural elements of a	about a particular musical	presentation software, Web
given musical	composition.	sites, wikis, e-books,
composition.		interactive whiteboards,
		discussion fora

References

- Ernst, K.D. & Gary, C. L. (1965). *Music in general education*. Washington, D. C.: Music Educators National Conference.
- Harris, J., & Hofer, M. (2009). Instructional planning activity types as vehicles for curriculumbased TPACK development. In C. D. Maddux, (Ed.). *Research highlights in technology* and teacher education 2009 (pp. 99-108). Chesapeake, VA: Society for Information Technology in Teacher Education (SITE).

http://activitytypes.wmwikis.net/file/view/HarrisHofer-TPACKActivityTypes.pdf

- John, P. D. (2006). Lesson planning and the student teacher: Re-thinking the dominant model. *Journal of Curriculum Studies*, 38(4), 483-498.
- Shuler, S. C. (2011). Music education for life: The three artistic processes paths to lifelong 21st-century skills through music. *Music Educators Journal*, 97(9), 9-13. doi: 10.1177/0027432111409828
- Shuler, S. & Connealy, S. (1998, September). The evolution of state arts assessment: From Sisyphus to stone soup. Arts Education Policy Review, 100(1), 12. Retrieved March 12, 2008, from Academic Search Complete database.
- Yinger, R. (1979). Routines in teacher planning. Theory into Practice, 18(3), 163-169.