

Course: Music Production 2
Unit #2: Sound Manipulation

Year of Implementation: 2026-2027

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Stage One - Desired Results

Link(s) to New Jersey Student Learning Standards for this course:

<https://www.state.nj.us/education/cccs/2020/>

- **Unit Standards:**

- **Content Standards**

- 1.3E.12prof.Cr1a: Generate melodic, rhythmic and harmonic ideas for compositions or improvisations using digital tools.
- 1.3E.12prof.Cn10a: Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music.
- 1.3E.12prof.Re7a: Cite reasons for choosing music based on the use of the elements of music, digital and electronic aspects, and connections to interest or purpose.
- 1.3E.12prof.Pr4a: Develop and explain the criteria used for selecting varied sound resources based on interest, music reading skills, and an understanding of the performer's musical and technological skill.
- 1.3B.12prof.Pr6a: Share live or recorded performances of works (both personal and others') and explain how the elements of music are used to convey intent.
- 1.3E.12prof.Re7b: Explain how knowledge of the structure (e.g., repetition, similarities, contrasts), technological aspects, and purpose of the music informs the response.
- 1.3E.12adv.Re7b: Justify (by using examples) how an analysis of the structural characteristics, context, and technological and creative decisions, informs interest in and response to the music.
- 1.3D.12adv.Cr2a: Use standard notation and audio/video recording to document melodic, rhythmic and harmonic ideas for drafts of compositions and improvisations in a variety of styles as well as stylistically appropriate harmonization for given melodies.

- **2020 NJSL Standards: Career Readiness, Life Literacies, and Key Skills Introduction**

- 9.4.12.TL.1: Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specific task (e.g., W.11-12.6.).

- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.
- 9.1.2.FP.2: Differentiate between financial wants and needs.
- 9.1.2.RM.1: Describe how valuable items might be damaged or lost and ways to protect them.
- **English Companion Standards**
 - NJSLA.W7. Conduct short as well as more sustained research projects, utilizing an inquiry based research process, based on focused questions, demonstrating understanding of the subject under investigation.
- **Interdisciplinary Content Standards**
 - HS-PS4-4: Evaluate the validity and reliability of claims about the effects of different frequencies of electromagnetic radiation when absorbed by matter.
 - HS-PS4-5: Communicate technical information about how technological devices use wave behavior and interactions with matter to transmit and capture information and energy.
- **NJ Statutes:** NJ State law mandates the inclusion of the following topics in lesson design and instruction as aligned to elementary and secondary curriculum.

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocides in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35 A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district's implementation of the New Jersey Student Learning Standards (N.J.S.A.18A:35-4.36) A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.

Diversity and Inclusion [\(N.J.S.A. 18A:35-4.36a\)](#) A board of education shall incorporate instruction on

diversity and inclusion in an appropriate place in the curriculum of students in grades kindergarten through 12 as part of the district's implementation of the New Jersey Student Learning Standards.

Asian American and Pacific Islanders (AAPI) [P.L.2021, c.410](#) Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416)

For additional information, see

NJ Amistad Curriculum: <https://www.nj.gov/education/amistad/about/>

Diversity and Inclusion: <https://www.nj.gov/education/standards/dei/index.shtml>

- (Sample Activities/ Lessons): <https://www.nj.gov/education/standards/dei/samples/index.shtml>

Asian American and Pacific Islanders:

- [Asian American and Pacific Islander Heritage and History in the U.S.](#)

A Teacher's Guide from EDSITEment offering a collection of lessons and resources for K-12 social studies, literature and arts classrooms that center around the experiences, achievements and perspectives of Asian Americans and Pacific Islanders across U.S. history.

Transfer Goal: Students will independently apply sound manipulation techniques to creatively shape, enhance, and produce soundscapes and similar audio-based projects.

As aligned with LRHSD Long Term Learning Goal(s): <https://www.lrhdsd.org/academics/curriculum>

1. develop creative thinking and problem-solving skills
2. understand the principles that govern the elements of music

Enduring Understandings

Students will understand that. . .

EU 1

Essential Questions

- How do different sound manipulation techniques affect the character and emotional impact of audio?

sound manipulation techniques (EQ, filters, compression, reverb, modulation) fundamentally shape the emotional and aesthetic qualities of recorded music. <i>EU2</i> technology empowers musicians to creatively alter and produce sound in ways that expand traditional musical possibilities. <i>EU3</i> personal and cultural contexts influence how and why sound manipulation is used in music production.	• What are the ethical and artistic considerations when altering sound recordings?
<u>Knowledge</u> <i>Students will know . . .</i> <i>EU 1</i> • functions and effects of key audio processing tools: equalization, compression, filters, reverb, delay, modulation. (1.3E.12prof.Re7b) • how sound manipulation shapes listener perception and emotional response. (1.3E.12adv.Re7b) • historical, cultural, and social roles of technology in music production and sound design. (1.3E.12prof.Cn10a) <i>EU 2</i> • effects and signal processing tools such as reverb, EQ, distortion, and compression change the quality and character of sound in both subtle and dramatic ways. (1.3E.12prof.Pr4a, 1.3E.12prof.Pr6a)	<u>Skills</u> <i>Students will be able to. . .</i> <i>EU 1</i> • analyze audio tracks to identify specific uses of sound manipulation and describe their effects on musical meaning. • use DAWs and audio plugins to manipulate recorded and synthesized sounds creatively and effectively. (1.3E.12prof.Cr1a, 1.3E.12prof.Pr6a) • produce short compositions or soundscapes employing multiple sound processing techniques with intentional artistic choices. (1.3E.12prof.Cr1a, 1.3E.12prof.Pr6a) • reflect critically on the artistic and technical decisions made during sound manipulation projects. (1.3E.12prof.Re7a) • make connections between sound manipulation practices and their cultural, social, or personal significance. (1.3E.12prof.Cn10a)

- musical expression can be enhanced or transformed using automation. (1.3E.12prof.Pr4a) <i>EU 3</i> - techniques like pitch shifting, sampling, compression, or EQ, and connect them to cultural styles or personal artistic intent (1.3E.12prof.Pr4a) - how to use software tools to manipulate sound in ways influenced by cultural norms or personal background (1.3E.12prof.Cn10a) - how their own background influences their choices in sound design or manipulation (1.3B.12prof.Pr6a)	<i>EU 2</i> - create automation lanes to manipulate volume, pan, echo, reverb, and other signal processors (1.3E.12prof.Cr1a, 1.3E.12prof.Pr6a) - produce synth sounds that emulate styles of different genres (1.3E.12prof.Cn10a) <i>EU 3</i> - use their own abstract thoughts and feeling to represents colors to sound (1.3E.12prof.Cn10a) - explain and describe intent and active choices in the music-making process with a colleague or instructor (1.3B.12prof.Pr6a)
Stage Two - Assessment	
<u>Other Evidence:</u> - Small projects - Test and quizzes - Diagram or model of signal flows - Teacher/ Peer Critique of in-class recordings	
Stage Three - Instruction	

Learning Plan: Suggested Learning Activities to Include Differentiated Instruction and Interdisciplinary Connections: Each learning activity listed must be accompanied by a learning goal of A= Acquiring basic knowledge and skills, M= Making meaning and/or a T= Transfer. All knowledge and skills must be addressed in this section with a corresponding lesson/activity which teaches each concept. The following color codes are used to notate activities that correspond with interdisciplinary connections and 21st Century Life & Career Connections (which involves Technology Literacy): Red = Interdisciplinary Connection; Purple = 21st Century Life & Career Connection

- Analyze sample-based recordings trying to determine techniques used. (A, EU1)
- Teacher directed discussion on the use of different types of microphones used in sampling. (A, EU1)
- Students will experiment with portable recording devices when collecting samples for their archive. (A, M, EU1)
- Teacher directed discussion on converting various formats of audio for use in sampling projects. (A, M, EU1)
- Students will use a DAW and a Software synthesizer to create a new patch with teacher guided parameters. (M, EU1)
- Students will trace the signal flow of a single oscillator and diagram the flow in a written chart. (M, T, EU1)
- Students will create a short piece of music using only sampled sounds in personal and cultural contexts. (M, T, EU1)
- The students will create original sound effects from samples to be used as Foley in a video provided by TV Tech students. (T, EU1)
- Students will create a short piece of music using only synthesized sounds. (T, EU1)
- Students will create a drum kit using only sampled sounds. (T, EU1)

Pacing Guide

<i>Unit #</i>	<i>Title of Unit</i>	<i>Approximate # of teaching days</i>
1	Capturing Audio	60
2	Sound Manipulation	75

Instructional Materials

- Digital Audio Workstations
 - Logic, Other DAW (Ableton, FL Studios, etc)
- Midi keyboard controllers and control surfaces
- Stereo monitor speakers
- Mac computers
- Wired on-ear headphones
- Condenser, Dynamic, and Cardioid Microphones
- Soundproofing Materials
- Portable Recording Booth
- Library of Congress sound files

Accommodations

Special Education: The curriculum will be modified as per the Individualized Education Plan (IEP). Students will be accommodated based on specific accommodations listed in the IEP.

Students with 504 Plans: Students will be accommodated based on specific accommodations listed in the 504 Plan.

English Language Learners: Students will be accommodated based on individual need and in consultation with the ELL teacher.

Students at Risk of School Failure: Students will be accommodated based on individual need and provided various structural supports through their school.

Gifted and Talented Students: Students will be challenged to enhance their knowledge and skills through acceleration and additional independent research on the subject matter.