Course: Tech in Music II
Unit #2: Mixing and Mastering

Year of Implementation: 2019-2020

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Stage One - Desired Results

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

(https://www.nj.gov/education/aps/cccs/arts/)

Unit Standards:

- 8.1 Educational Technology All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.
- 1.1.12.B.1 Examine how aspects of meter, rhythm, tonality, intervals, chords, and harmonic progressions are organized and manipulated to establish unity and variety in genres of musical compositions.
- 1.1.12.B.2 Synthesize knowledge of the elements of music in the deconstruction and performance of complex musical scores from diverse cultural contexts.
- 1.3.12.B.3 Improvise works through the conscious manipulation of the elements of music, using a variety of traditional and nontraditional sound sources, including electronic sound-generating equipment and music generation programs.
- 1.4.12.A.3 Develop informed personal responses to an assortment of artworks across the four arts disciplines (dance, music, theatre, and visual art), using historical significance, craftsmanship, cultural context, and originality as criteria for assigning value to the works.

21st Century Standards

https://www.state.nj.us/education/aps/cccs/career/

9.2 Career Awareness, Exploration, and Preparation

This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

21st Century Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Transfer Goal(s): Students will be able to independently use their learning to analyze, refine and critique their own audio recordings that will further the understanding of specific listening and compositional techniques.

Enduring Understandings Students will understand that	Essential Questions
EU1 expert use of mixing and mastering techniques can enhance the listener's experience of a quality recording.	 How could effects processors affect the mixing and mastering process for the listener? How could the music of Led Zeppelin be different today with the use of modern effects processing? In what ways has effects processing affected the music of today?
Knowledge Students will know EU1	Skills Students will be able to EU1

- the anatomy of a mixing board.
- the differences between audio file formats.
- where different instruments lie on the frequency spectrum.
- the characteristics of each of the effects processors.
- parameters of an Equalizer.
- parameters of a Compressor.

- navigate a mixing board.
- apply proper effects processors for a given task.
- manipulate volume and pan levels on a mixing board.
- create auxiliary and apply effects processors to the auxiliary track.
- apply automation to a recording project.
- export in different file formats.
- print final project to CD.

Stage Two - Assessment

Other Evidence:

- Quiz on parameters of an Equalizer
- Quiz on parameters of a Compressor
- Test on parameters of various Effects Processors
- Teacher/Peer critique of a mixing project
- Self-assessment of final CD

Stage Three - Instruction

<u>Learning Plan:</u> 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.

- Teacher directed activity discussing the various parts and pieces of the mixing board (A, EU1)
- Students will take turns identifying the components and functions of the mixing board, using a projector to guide class discussion (M, EU1)
- Students will compare and contrast the different types of mixing boards (M, EU1)
- Students will design a mixing board based on acquired knowledge (T, EU1)

- Teacher directed discussion identifying the various effects processors. (A, EU1)
- Teacher-directed discussion identifying where instruments lie on the frequency spectrum (A, EU1)
- Teacher-directed discussion describing panning techniques (A, EU1)
- Students will create a recording using different effects processors to generate specific teacher requested results (M, EU1)
- Students will create a live mix, as per teacher prompted parameters (T, EU1)
- Student will create a hearing test for a doctor's office (T, EU1)
- Teacher-directed discussion defining wav files, aiff. files, mp3 files and automation (A, EU1)
- Students will export an audio file into 3 formats discussed in class (M, EU1)
- Students will design their own mix of unprocessed audio files to create a finished CD (T, EU1)