Electronic Music II Curriculum

CTECS
CONNECTICUT
TECHNICAL EDUCATION
AND CAREER SYSTEM

Rev. 1-2026

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Connecticut Technical Education and Career System

Vision of a Graduate

A CTECS Graduate is...

- A Problem Solver
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- A Critical Thinker
- An Effective Communicator

The Vision of a Graduate (VoG) at the Connecticut Technical Education and Career System (CTECS) embodies our commitment to preparing students for success in Connecticut's workforce.

Developed in collaboration with students, parents, staff, and employers, the VoG ensures that CTECS students are not only job-ready but also equipped to lead, innovate, and adapt in a dynamic world.

As educators, we are dedicated to developing these qualities by providing a comprehensive education that empowers our students to achieve their fullest potential and make meaningful contributions to society.

A Problem Solver

Problem solvers tackle challenges by identifying root causes of issues, brainstorming solutions, implementing effective strategies, and demonstrating adaptability.

- ➔ Engage students with open-ended, creative thinking tasks that require both conventional and innovative solutions.
- ➔ Facilitate group discussions and collaborative projects.
- ➔ Use real-world scenarios and hands-on activities.
- ➔ Highlight the importance of effort, persistence, and continuous learning.
- ➔ Provide regular feedback and encourage reflection.

Work Ready

To be work-ready includes a combination of technical expertise, soft skills, and personal qualities that ensure a graduate can effectively contribute to the workplace from day one.

- ➔ Set high standards for punctuality, responsibility, professionalism, and task completion.
- ➔ Use project-based learning and collaborative assignments.
- ➔ Emphasize clear written and verbal communication.
- ➔ Offer practical exercises like mock interviews and resume workshops.
- ➔ Integrate technology and teach digital literacy.

Respectful

Graduates who embody respectfulness emphasize the importance of treating others with dignity, valuing diversity, and fostering an inclusive and positive environment, both personally and professionally.

- ➔ Demonstrate personal, interpersonal, and professional skills.
- ➔ Show respect for diversity.
- ➔ Model respect through active listening and empathy.
- ➔ Set clear expectations for respectful interactions.
- ➔ Promote collaboration and group discussions.
- ➔ Celebrate respectful behavior.
- ➔ Address disrespect promptly and constructively.

Skilled Socially

Graduates who are skilled socially are equipped to navigate social environments, build relationships, and contribute positively to their communities and workplaces.

- ➔ Show awareness of global responsibility to others and the environment.
- ➔ Participate in community involvement.
- ➔ Design cooperative group projects and team activities
- ➔ Set expectations for respect and give regular feedback.
- ➔ Facilitate discussions on inclusivity, kindness, and respect.
- ➔ Model positive interactions and recognize strong social skills.

A Critical Thinker

Critical thinkers approach problems systematically by analyzing, evaluating, and synthesizing information to make well-informed decisions and contribute to innovative solutions.

- ➔ Encourage critical thinking individually and collaboratively.
- ➔ Design lessons that challenge assumptions and explore diverse viewpoints.
- ➔ Use open-ended questions, rigorous activities, and cross-curricular projects.
- ➔ Integrate project-based learning and real-world problem-solving.
- ➔ Offer reflective opportunities like journaling and discussions.
- ➔ Cultivate an environment that values curiosity and inquiry.

An Effective Communicator

Effective communicators convey ideas, information, and emotions accurately and persuasively, fostering understanding and collaboration.

- ➔ Communicate effectively using oral, written, visual, artistic, and technical modes.
- ➔ Include group discussions, presentations, and peer reviews.
- ➔ Promote active listening and thoughtful responses.
- ➔ Offer clear guidelines and constructive feedback.
- ➔ Stress clear, respectful, and purposeful communication.

CTECS Instructional Model

CTECS uses the Marzano Compendium to guide research-based instructional strategies that differentiate learning and promote access, engagement, and success for all students. Teachers apply these strategies to support diverse learners (including multilingual learners, students with disabilities, and students with varied academic or technical backgrounds) through scaffolds, modeling, guided practice, and multiple ways to participate and show understanding. This approach ensures every student can work toward proficiency in the Priority Standards and the competencies outlined in the CTECS Vision of a Graduate.

Feedback	Content	Context
Providing and Communicating Clear Learning Goals 1. Providing scales and rubrics 2. Tracking student progress 3. Celebrating success **Using Assessments** 4. Using informal assessments of the whole class 5. Using formal assessments of individual students	**Conducting Direct Instruction Lessons** 6. Chunking content 7. Processing content 8. Recording and representing content **Conducting Practicing and Deepening Lessons** 9. Using structured practice sessions 10. Examining similarities and differences 11. Examining errors in reasoning **Conducting Knowledge Application Lessons** 12. Engaging students in cognitively complex tasks 13. Providing resources and guidance 14. Generating and defending claims **Using Strategies That Appear in All Types of Lessons** 15. Previewing strategies 16. Highlighting critical information 17. Reviewing content 18. Revising knowledge 19. Reflecting on learning 20. Assigning purposeful homework 21. Elaborating on information 22. Organizing students to interact	**Using Engagement Strategies** 23. Noticing and reacting when students are not engaged 24. Increasing response rates 25. Using physical movement 26. Maintaining a lively pace 27. Demonstrating intensity and enthusiasm 28. Presenting unusual information 29. Using friendly controversy 30. Using academic games 31. Providing opportunities for students to talk about themselves 32. Motivating and inspiring students **Implementing Rules and Procedures** 33. Establishing rules and procedures 34. Organizing the physical layout of the classroom 35. Demonstrating withitness 36. Acknowledging adherence to rules and procedures 37. Acknowledging lack of adherence to rules and procedures **Building Relationships** 38. Using verbal and nonverbal behaviors that indicate affection for students 39. Understanding students' backgrounds and interests 40. Displaying objectivity and control **Communicating High Expectations** 41. Demonstrating value and respect for reluctant learners 42. Asking in-depth questions of reluctant learners 43. Probing incorrect answers with reluctant learners

Curriculum Introduction

This curriculum document outlines the essential learning for this academic program and provides a clear structure for planning, instruction, and assessment. It includes the components required by NEASC Standard 2.2a, along with elements that reflect the unique nature of CTECS academic programs. The curriculum is organized to show what students learn in each course, how learning progresses across grade levels, and how instruction supports both technical skill development and the CTECS Vision of a Graduate.

Teachers should use this document to:

- Understand the overall structure and expectations of the course sequence
- Reference the Course Map to see the scope and sequence of Priority Standards and the alignment to district assessments
- Use the Priority Standards and Units of Study to guide daily, weekly, and cycle-based planning
- Integrate Big Ideas, Essential Questions, Skills/Learning Outcomes, vocabulary, and resources during lesson design
- Plan and implement formative assessments to monitor progress and guide instruction
- Maintain consistency of technical and artistic practice instruction across campuses while adapting to student needs and industry-based opportunities

Curriculum Components

Course Map

A Course Map serves as the scope and sequence for this course by outlining the progression of instructional units and the standards that guide teaching and assessment. While each campus will have individual student needs and cycle schedules, all instructors are expected to teach the standards outlined in the Course Map. Using the Course Map below, teachers will intentionally plan learning experiences that prepare students to meet the identified standards within the designated assessment windows.

Priority Standards (Units of Study)

Priority Standards identify the most essential learning in the program. They reflect the core competencies and skills that require the greatest instructional focus and appear on program assessments. Priority Standards guide each Unit of Study with big ideas, essential questions, content topics, and skills/learning outcomes aligned to assessments.

Vertical Alignment

Vertical alignment shows how Priority Standards and instructional expectations progress within the program. It provides a clear pathway of skill development, increasing complexity, and technical proficiency across a sequence.

Learning Outcomes

Learning outcomes are what students will know (Concepts) and be able to do (Skills). Concepts identify the major content topics within the Priority Standard (Unit of Study). They appear in the left column of the Learning Outcomes table and follow a similar coding structure as the Priority Standard.

Skills are learning objectives that describe the measurable actions students must be able to perform to demonstrate proficiency. They appear in the right column of the Learning Outcomes table and show the progression of learning evidence in the Priority Standard.

Vocabulary

Essential vocabulary includes the content and academic terms students must understand and use accurately to engage in learning and demonstrate proficiency on assessments. Vocabulary is foundational to communication, and should be a primary initial focus within each unit and taught explicitly through modeling, demonstration, and repeated application.

Resources

Resources include the texts, materials, and digital tools that support learning within each unit to achieve the standards.

Assessment Practices

Teachers use ongoing formative assessments—such as questioning, checks for understanding, performance demonstrations, reflections, and teacher observation—to monitor progress, guide instruction, and support all learners in mastering the Priority Standards.

Each program also includes district assessments, which measure proficiency on the Priority Standards identified in the Course Map. These assessments provide consistent evidence of student learning across campuses and ensure alignment to course expectations and program outcomes. Teachers should reference the Course Map and Units of Study when planning instruction to ensure students have opportunities to practice and demonstrate the skills and knowledge assessed on the district assessments.

Music Vision

The vision for music in the Connecticut Technical Education and Career System (CTECS) is to empower students through Music Education to develop the creativity, communication, collaboration, and critical skills needed for success in the 21st century. Through music's rich cultural heritage and universal language, students grow as expressive, empathetic, and lifelong learners prepared to thrive in a diverse and evolving world.

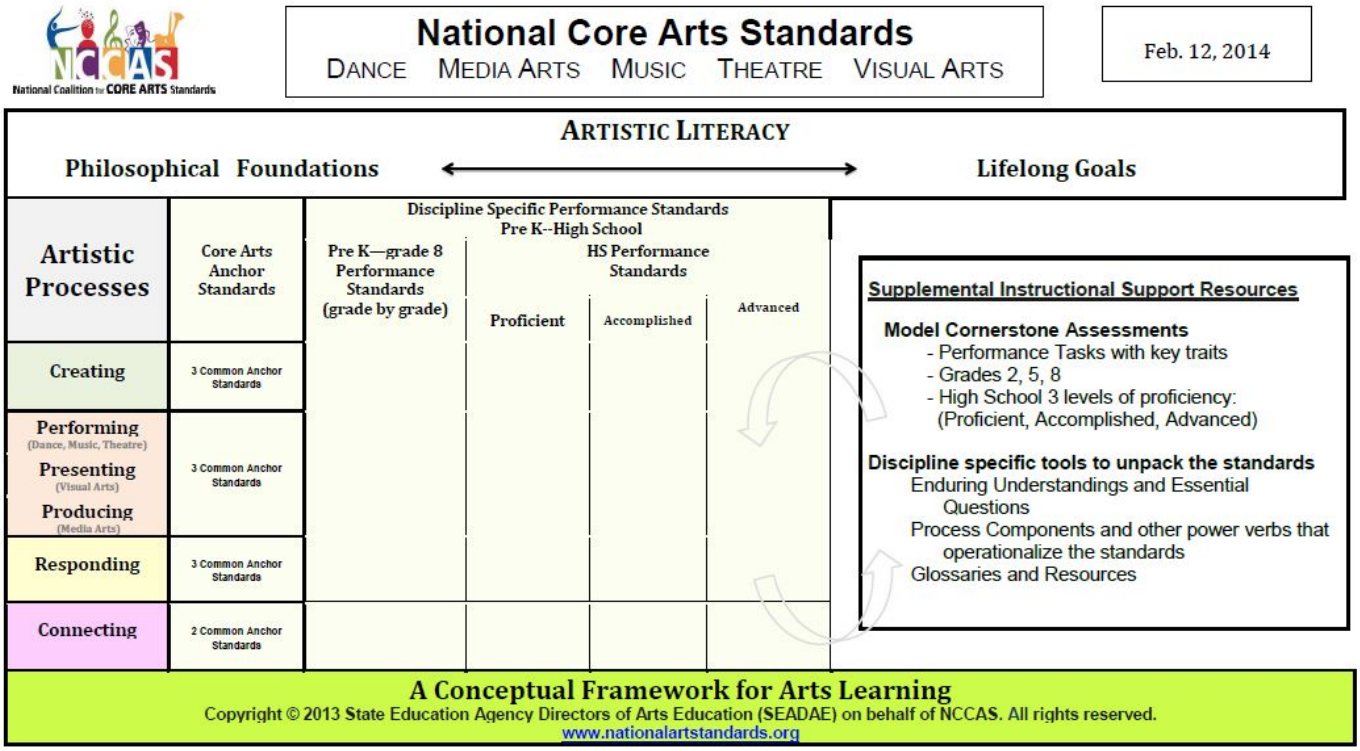
Music Curriculum Philosophy

The CTECS Music Curriculum 24-25 revision was modeled after CSDE Model Curriculum. The curricula were constructed using the Connecticut State Department of Education (CSDE) K–12 Curricula Design Principles Handbook and the National Core Arts Standards: A Conceptual Framework for Arts Learning as frameworks to structure and inform the design process in order to ensure access to high quality, high-impact teaching and learning aligned to the content standards adopted by the Connecticut Board of Education to provide CTECS's students access to equitable educational opportunities within a culture of high expectations.

This standards-based curriculum defines what students are expected to learn by course; it provides a roadmap of the essential learning outcomes for mastery by the end of the course. The curriculum combines how teachers will teach to develop skills, content knowledge, and assess students' ability to transfer learning. The structure and organization of curriculum are guided by a curriculum framework that must include standards aligned concepts, skills, high impact instructional methods, high quality materials, and multiple means of assessment aligned to standards.

Aligned Prioritized Standards

- [CT Arts Standards/National Arts Music Standards]
- [National Association for Music Education]



Electronic Music II Curriculum Prioritized Standards by Unit

	Unit 1	Unit 2	Unit 3	Unit 4
Unit Priority Standards	MU:Cr1.1.C.HSI.IIa MU:Cr2.1.C..HSI.IIa MU:Cr2.1.C.HSI.IIb MU:Cr2.1.T.HSI.IIa MU.Cr3.2.C.HSI.IIa	MU:Pr4.1.C.HSI.IIa MU:Pr4.2.C.HSI.IIa MU:Pr4.3.C.HSI.IIa MU:Re8.1.C.HSI.IIa MU:Cr3.2.T.HSI.IIa	MU:Pr5.1.C.HSI.IIa MU:Cr3.1.T.HSI.IIa MU:Pr5.1.C.HSI.IIb MU:Pr6.1.T.HSI.IIa MU:Pr6.1.T.HSI.IIb	MU:Pr5.1.C.HSI.IIc MU:Re8.1.T.HSI.IIa MU:Re9.1.T.HSI.IIa MU:Cr3.2.T.HSI.IIIa

Electronic Music II Curriculum Unit 1

Priority Standards Addressed in Unit 1
MU:Cr1.1.C.IIa **Describe and demonstrate how sounds and musical ideas can be used to represent sonic events, memories, visual images, concepts, texts, or storylines.** **MU:Cr2.1.C.IIa** **Assemble and organize multiple sounds or musical ideas to create initial expressive statements of selected sonic events, memories, images, concepts, texts, or storylines.** **MU:Cr2.1.C.IIb** **Describe and explain the development of sounds and musical ideas in drafts of music within a variety of simple or moderately complex forms (such as binary, rondo , or ternary) .** **MU:Cr2.1.T.IIa** **Select melodic, rhythmic, and harmonic ideas to develop into a larger work that exhibits unity and variety using digital and analog tools.** **MU:Cr3.2.C.IIa** **Share music through the use of notation, solo or group performance, or technology, and demonstrate and describe how the elements of music and compositional techniques have been employed to realize expressive intent.**
Big Ideas: ● The creative ideas, concepts, and feelings that influence musicians' work emerge from a variety of sources. ● Musicians' creative choices are influenced by their expertise, context, and expressive intent. ● Individuals' selection of musical works is influenced by their interests, experiences, understandings, and purposes. ● Response to music is informed by analyzing context (social, cultural, and historical) and how creators and performers manipulate the elements of music. ● Musicians connect their personal interests, experiences, ideas, and knowledge to creating, performing, and responding. ● Understanding connections to varied contexts and daily life enhances musicians' creating, performing, and responding. ● Performers' interest in and knowledge of musical works, understanding of their own technical skill, and the context for a performance influence the selection of repertoire. ● Analyzing creators' context and how they manipulate elements of music provides insight into their intent and informs performance.

Essential Questions:

- How do musicians generate creative ideas?
- How do musicians make creative decisions?
- How do individuals choose music to experience?
- How does understanding the structure and context of music inform a response?
- How do musicians make meaningful connections to creating, performing, and responding?
- How do the other arts, other disciplines, contexts, and daily life inform creating, performing, and responding to music?
- How do performers select repertoire?
- How does understanding the structure and context of musical works inform performance?

Learning Outcomes

Students will know:	***As evidenced by: (oral, written, or performance):***
MU:Cr1.1.C.HSII.a ● Sound ● Musical ideas / motifs / phrases ● Sonic events ● Memories ● Visual images ● Concepts / themes ● Texts / lyrics ● Storylines / narratives ● Musical elements (melody, rhythm, harmony, dynamics, timbre, texture, form) ● Expressive intent ● Representation / symbolism ● Tone color / timbre ● Mood / emotion ● Audience perception	**MU:Cr1.1.C.HSII.a** ● Describe how musical elements represent ideas or experiences ● Demonstrate musical ideas that convey sonic events, images, or narratives ● Create sounds or motifs to depict memories, concepts, or texts ● Apply melody, rhythm, harmony, and timbre to express meaning ● Use dynamics and articulation for expressive effect ● Develop motifs into coherent musical expressions ● Experiment with sound design and texture to enhance representation ● Communicate meaning through musical performance or composition ● Reflect on effectiveness of expressive choices ● Revise ideas to improve clarity of representation
MU:Cr2.1.C.IIa ● Sound ● Musical ideas / motifs / phrases	**MU:Cr2.1.C.IIa** ● Assemble multiple sounds or musical ideas

● Sonic events ● Memories ● Visual images ● Concepts / themes ● Texts / lyrics ● Storylines / narratives ● Musical elements (melody, rhythm, harmony, dynamics, timbre, texture, form) ● Arrangement / structure ● Contrast / unity ● Expressive intent ● Layering / combination ● Texture / timbre	● Organize ideas into coherent structures ● Create initial expressive statements reflecting memories, images, or storylines ● Layer sounds for texture and effect ● Apply melody, rhythm, harmony, dynamics, and timbre to convey meaning ● Combine contrasting and complementary ideas ● Experiment with form and structure for expressive impact ● Demonstrate expressive intent through musical choices ● Revise initial statements to enhance clarity and coherence ● Communicate meaning through performance or digital presentation
MU:Cr2.1.C.IIb ● Sound ● Musical ideas / motifs / phrases ● Draft / composition version ● Form (binary, ternary, rondo) ● Structure / sections ● Development / variation ● Melody ● Rhythm ● Harmony ● Dynamics ● Timbre / tone color ● Texture ● Expressive intent ● Contrast / repetition ● Theme / motif	**MU:Cr2.1.C.IIb** ● Describe how musical ideas develop in drafts ● Explain structural relationships within musical forms ● Identify repeated and varied motifs ● Trace melodic, harmonic, or rhythmic development ● Organize ideas within simple or moderately complex forms ● Apply dynamics, timbre, and texture to enhance development ● Revise drafts to clarify or expand musical ideas ● Connect expressive intent to compositional choices ● Compare early and later versions of drafts to assess growth ● Communicate reasoning for development decisions using music vocabulary
MU:Cr2.1.T.IIa ● Melody ● Rhythm ● Harmony ● Motif / musical idea ● Chord progression / scale / key ● Form / structure ● Unity / coherence	**MU:Cr2.1.T.IIa** ● Select effective melodic, rhythmic, and harmonic ideas ● Develop ideas into a larger, coherent composition ● Apply unity and variety in structure and texture

• Variety / contrast • Texture / layering • Digital tools (DAW, MIDI, virtual instruments) • Analog tools (instruments, live recording) • Dynamics / articulation • Tempo / meter • Development / expansion • Expressive intent	• Combine digital and analog tools to realize musical ideas • Layer and organize tracks or instruments for clarity and balance • Expand motifs using repetition, variation, or contrast • Adjust dynamics, articulation, and tempo to enhance expression • Refine musical ideas through editing or rehearsal • Demonstrate intentional use of musical elements to communicate meaning • Reflect on compositional choices and make revisions to improve coherence
MU:Cr3.2.C.IIa • Music notation (traditional or digital) • Solo performance • Group / ensemble performance • Technology (DAW, MIDI, recording tools) • Elements of music (melody, rhythm, harmony, dynamics, timbre, texture, articulation, form) • Compositional techniques (motif development, repetition, variation, layering) • Expressive intent • Structure / form • Musical ideas / motifs • Arrangement • Balance / blend • Audience • Interpretation • Presentation formats	**MU:Cr3.2.C.IIa** • Share compositions via notation, performance, or technology • Demonstrate musical and compositional techniques in performance • Explain how musical elements are used to achieve expressive intent • Perform solo or ensemble passages with clarity and expression • Apply dynamics, articulation, texture, and timbre purposefully • Illustrate motif development and variation in shared works • Organize and present music coherently using digital or analog tools • Reflect on the effectiveness of expressive choices • Revise music or performance based on feedback • Communicate reasoning for musical and compositional decisions using appropriate vocabulary
Music Standards Glossary **Academic Vocabulary** • **Content Vocabulary** •	
Resources: • **Soundtrap:**	

    - https://www.soundtrap.com/home/edu/groups
        - Soundtrap educators detailed lesson plans to inspire classroom activities and to make learning fun. These are created by teachers for teachers! Find our entire lesson plan library in the left menu.
- **Audacity (Online)https://play.generative.fm/browse: https://www.offidocs.com/media/system/audacitygdrive/google-api-php-client/core/audacitydownload.php**

- Online Exercises:
    - **https://www.musictheory.net/exercises**
    - **https://www.savethemusic.org/music-education-resources/**
    - **https://www.carnegiehall.org/Explore/Learn/Music-Educators**
    - **https://www.musicalfuturesonline.org/resource-type/music-technology/**
    - **https://albumism.com/**
    - **https://www.pbs.org/opb/historydetectives/feature/the-art-of-turntablism/**
    - **https://music.ishkur.com/**
    - **https://www.cambridge-mt.com/ms/mtk/**
    - **https://play.generative.fm/browse**

Skill Practice:

- https://youdj.online/
- https://mp3cut.net/equalizer

Cross Cycle Tasks:
Suggestions:

- Have students begin reading a brief connected text at the end of the academic and finish during trade cycle.
- Use Google Forms for a questionnaire or survey about upcoming topic.
- Brief writing task related to end of cycle lesson or as a discussion piece for upcoming lesson.
- Student question development about upcoming topic. Provide question starters: *Classroom Question Stems* by Cormier; *DOK; Bloom's Taxonomy.*
- Quizlet Study Sets activity.

Last day of the Cycle:

- Students meet in small groups to read and discuss text they will create posts for:
    - Week 1: post 2 reflections and respond to 2 reflections
    - Week 2: post 2 questions or wonderings

First day of the New Cycle:

- Students meet in small groups to discuss reflection, response, and question posts (approx. 15 minutes)

Assessments:

Formative Assessments:
REQUIRED:
Here is a bank of 17 formative assessment types for the course unit on the origins and principles of electronic music, designed to be quick (no more than 5 minutes each):

- 1. **Quick Quiz:** Multiple-choice or true/false questions on key historical milestones, such as the invention of early synthesizers or the contributions of pioneers like Leo Theremin and Robert Moog.

- 2. **Exit Ticket:** Write a one-sentence summary of the most important concept learned about sound synthesis today.

- 3. **Flashcard Review:** Use flashcards with key terms like "sampling," "sequencing," and "synthesis" on one side, and definitions or examples on the other; students quickly match them.

- 4. **1-Minute Essay:** In one minute, explain how Morton Subotnick's work influenced contemporary electronic music.

- 5. **Peer Teaching:** In pairs, have students briefly explain a principle of electronic music (e.g., how a synthesizer works) to each other.

- 6. **Quick Reflection:** Have students jot down one way electronic music has influenced a genre they listen to.

- 7. **Poll/Survey:** Conduct a quick poll on which technology (e.g., synthesizers, samplers) students find most interesting and why.

- 8. **Concept Map:** Quickly sketch a simple concept map linking terms like "sequencing," "sampling," and "synthesis" to their applications in music production.

- 9. **Think-Pair-Share:** Pose a question about the cultural impact of electronic music; have students think for 30 seconds, discuss with a partner, then share with the class.

- 10. **Audio Example Identification:** Play a short clip of electronic music and ask students to identify the technique used (e.g., sampling, synthesis).

- 11. **Thumbs Up/Thumbs Down:** Quickly assess understanding by asking students to give a thumbs up or down to statements about electronic music history or principles.

- 12. **Quick Sketch:** Have students sketch a simple diagram of an early synthesizer or the signal flow in a basic electronic music setup.

- 13. **Matching Activity:** Provide a list of electronic music pioneers and a list of their contributions; students quickly match them.

- 14. **Soundtrap/Audacity Task:** Instruct students to complete a 2-minute task, like creating a basic loop or sample in Soundtrap or Audacity, and share with a partner.

- 15. **3-2-1 Activity:** Students quickly write down 3 things they learned, 2 things they found interesting, and 1 question they still have about electronic music.

- 16. Instrumental Performance

- 17. "Other ~ Teacher-directed

Summative Assessments:
REQUIRED:

Here are three summative assessment types for the course unit on the origins and principles of electronic music:

1. **Research Essay on a Pioneer of Electronic Music:**
Description: Students will write a significant-length essay (4-6 pages) on a key figure in the development of electronic music, such as Leo Theremin, Robert Moog, or Morton Subotnick. The essay should cover the individual's contributions to the field, the technological innovations they were involved in, and their influence on contemporary electronic music. Students should also analyze how their work has shaped modern music production and the cultural impact of their innovations.
Assessment Focus: Historical research, critical analysis, and synthesis of information.

2. **Original Composition Using Digital Tools:**
*Description:** Students will create an original electronic music composition using Soundtrap or Audacity, incorporating principles learned in the unit, such as sound synthesis, sampling, and sequencing. The composition should be 2-3 minutes in length and must demonstrate the application of historical and technical concepts discussed in class. Students will submit both the audio file and a brief written explanation (1-2 pages) of the techniques and concepts used, as well as how their work is inspired by the historical developments studied in the course.
Assessment Focus: Creative application, technical proficiency, and reflective writing.

3. **Student-Driven Project on the Cultural Impact of Electronic Music:**
Description: Students will select a topic related to the cultural impact of electronic music and present their findings through a medium of their choice (e.g., a 5-minute video presentation, a podcast episode, a digital poster, or a website). The project should explore how electronic music has influenced a specific genre, social movement, or cultural trend. The project must be approved by the teacher and include both a creative component and a written or verbal explanation of how electronic music has shaped cultural practices or social attitudes.
Assessment Focus: Research, creativity, critical thinking, and communication skills.

4. **Student-Driven Original Proposal & Teacher-Approved

Opportunities for Interdisciplinary Connections:

Musicians must connect all disciplines to be successful in our craft. When responding, creating

and performing music we are not just musical, we are mathematicians, readers, historians and artists.

Connecticut Core Standards for Literacy in History/Social Studies, Science Technical Subjects
https://learning.ccsso.org/wp-content/uploads/2022/11/ELA_Standards1.pdf

Connecticut Elementary and Secondary Social Studies Standards: Social Studies Inquiry Arc

- Reading notes and lyrics from the staff, octavos and sheet music
- Connecting musical experiences with lived experiences through ourselves and others
- Learning historical context of the piece

Mathematical Practice Standards

- Using math skills to count rhythm

Next Generation Science Standards
Standards for students that are aligned to priority standards
https://www.nextgenscience.org/search-standards

International Society for Technology in Education (ISTE)
Standards for students that are aligned to priority standards
https://iste.org/standards/students

CTE Competency Standards

- Utilizing performances, projects and assignments that are able to connect to our trade technologies:
    - Aerospace Manufacturing
    - Architecture
    - Automotive Technology
    - Automotive Collision Repair and Refinishing
    - Bioscience and Environmental Technology
    - Biotechnology
    - Building and Civil Construction
    - Culinary Arts
    - Criminal Justice and Protective Services
    - Digital Media
    - Diesel and Heavy - Duty Equipment Repair
    - Electrical
    - Graphic Design
    - Heating
    - Ventilation and Air Conditioning
    - Health Technology
    - Hairdressing and Cosmetology

- Information Technology
- Landscape Design
- Installation and Equipment
- Masonry
- Mechanical Design and Engineering Technology
- Precision Machining Technology
- Plumbing and Heating
- Plumbing, Heating and Cooling
- Robotics and Automation
- Tourism
- Hospitality and Guest Services Management
- Veterinary Science
- Welding and Metal Fabrication

Components of Social, Emotional, and Intellectual Habits

- Develop logic and reasoning/Critical and analytic thinking
- Use evidence and critical thinking to support claims, make arguments and critique the reasoning of others; explain own thinking and responds to others' thinking
- Develop logic and reasoning/Applying known information to new experiences
- Compare, contrast and evaluate experiences, tasks and events building on prior knowledge
- Develop logic and reasoning/Reasoning and problem solving
- Analyze attributes to classify, compare and contrast objects, events and experiences (similarities, differences and associations)
- Develop a positive attitude toward learning/Cooperation during learning experiences
- Listen, discuss, and negotiate ideas in order to discover new learning with peers

Electronic Music II Curriculum Unit 2

Priority Standards Addressed in Unit 2
MU:Pr4.1.C.IIa **Identify and select specific passages, sections, or movements in musical works that express personal experiences and interests, moods, visual images, concepts, texts, or storylines in simple forms (such as binary , ternary , rondo) or moderately complex forms.** **MU:Pr4.2.C.IIa** **Analyze how the elements of music (including form) of selected works relate to the style, function , and context , and explain the implications for rehearsal and performance.** **MU:Pr4.3.C.IIa** **Develop interpretations of works based on an understanding of the use of elements of music, style, mood, function , and context , explaining and supporting how the interpretive choices reflect the creators' intent.** **MU:Re8.1.C.IIa** **Develop and support interpretations of varied works, demonstrating an understanding of the composers' intent by citing the use of elements of music (including form), compositional techniques, and the style/genre and context of each work.** **MU:Cr3.2.T.IIa** **Share compositions and improvisations that demonstrate an accomplished level of musical and technological craftsmanship as well as the use of digital and analog tools and resources in developing and organizing musical ideas.**
Big Ideas: ● The creative ideas, concepts, and feelings that influence musicians' work emerge from a variety of sources. ● Musicians' creative choices are influenced by their expertise, context, and expressive intent. ● Individuals' selection of musical works is influenced by their interests, experiences, understandings, and purposes. ● Response to music is informed by analyzing context (social, cultural, and historical) and how creators and performers manipulate the elements of music. ● Musicians connect their personal interests, experiences, ideas, and knowledge to creating, performing, and responding. ● Understanding connections to varied contexts and daily life enhances musicians' creating, performing, and responding. ● Performers' interest in and knowledge of musical works, understanding of their own

technical skill, and the context for a performance influence the selection of repertoire.

- Analyzing creators' context and how they manipulate elements of music provides insight into their intent and informs performance.

Essential Questions:

- How do musicians generate creative ideas?
- How do musicians make creative decisions?
- How do individuals choose music to experience?
- How does understanding the structure and context of music inform a response?
- How do musicians make meaningful connections to creating, performing, and responding?
- How do the other arts, other disciplines, contexts, and daily life inform creating, performing, and responding to music?
- How do performers select repertoire?
- How does understanding the structure and context of musical works inform performance?

Learning Outcomes

Students will know:	***As evidenced by: (oral, written, or performance):***
MU:Pr4.1.C.IIa ● Passage / section / movement ● Musical work / composition ● Personal experiences / interests ● Mood / emotion ● Visual image ● Concept / theme ● Text / lyrics ● Storyline / narrative ● Form (binary, ternary, rondo, moderately complex forms) ● Structure ● Elements of music (melody, rhythm, harmony, dynamics, timbre, texture) ● Expressive intent ● Contrast / repetition ● Theme / motif ● Interpretation	**MU:Pr4.1.C.IIa** ● Identify specific passages or sections in musical works ● Select sections that communicate personal experiences or moods ● Recognize and analyze simple and moderately complex forms ● Describe how musical elements contribute to expression ● Connect selected sections to visual images, concepts, or storylines ● Compare contrasting and repeated sections ● Justify selections using music vocabulary ● Prepare excerpts for performance, analysis, or study ● Reflect on how selected passages convey expressive intent ● Relate musical sections to personal

	interpretation or creative choices
MU:Pr4.2.C.IIa ● Elements of music (melody, rhythm, harmony, dynamics, timbre, texture, articulation, form) ● Form (binary, ternary, rondo, sectional) ● Style / genre ● Function / purpose of music ● Context (historical, cultural, social) ● Expressive intent ● Performance practice ● Rehearsal techniques ● Interpretation ● Tempo / meter ● Balance / blend ● Phrasing ● Audience ● Contrast / repetition	**MU:Pr4.2.C.IIa** ● Analyze musical elements in selected works ● Identify and describe form and structural patterns ● Relate elements of music to style, function, and context ● Determine implications of analysis for rehearsal strategies ● Adjust phrasing, dynamics, articulation, and tempo for performance ● Apply insights to interpretive decisions ● Plan rehearsal approaches based on musical analysis ● Balance and blend ensemble or digital textures effectively ● Explain performance choices using appropriate music vocabulary ● Reflect on how musical elements shape expressive intent
MU:Pr4.3.C.IIa ● Elements of music (melody, rhythm, harmony, dynamics, timbre, texture, articulation, form) ● Style / genre ● Mood / emotion ● Function / purpose of music ● Context (historical, cultural, social) ● Expressive intent ● Composer / creator choices ● Interpretation ● Performance practice ● Phrasing ● Dynamics / contrast ● Tempo / meter ● Audience ● Articulation ● Form / structure	**MU:Pr4.3.C.IIa** ● Develop personal or ensemble interpretations of musical works ● Analyze musical elements to guide interpretive decisions ● Relate style, mood, function, and context to performance choices ● Explain and support how interpretive choices reflect the creator's intent ● Adjust phrasing, dynamics, articulation, and tempo to communicate expression ● Apply performance practices appropriate to style and context ● Reflect on the effectiveness of interpretive decisions ● Compare multiple interpretive options and justify selections ● Communicate reasoning for musical interpretation using music vocabulary ● Integrate insights from context and function into performance
MU:Re8.1.C.IIa ● Elements of music (melody, rhythm, harmony, dynamics, timbre, texture, articulation, form)	**MU:Re8.1.C.IIa** ● Develop interpretations of varied works ● Support interpretations by citing specific musical elements and techniques

• Compositional techniques (motif development, repetition, variation, layering, sequencing) • Style / genre • Context (historical, cultural, social) • Composer / creator intent • Form / structure • Musical works (varied repertoire) • Interpretation • Expressive intent • Audience • Performance practice • Musical analysis / evaluation	• Analyze how compositional techniques contribute to expression • Relate style, genre, and context to musical interpretation • Explain how choices reflect the composer's intent • Compare interpretations across works • Communicate reasoning using appropriate music vocabulary • Evaluate effectiveness of expressive and technical choices • Apply insights from analysis to performance or composition • Reflect on personal understanding of music through composer-centered analysis
MU:Cr3.2.T.IIa • Composition / improvisation • Musical ideas (melody, rhythm, harmony, form, texture, dynamics, timbre) • Musical craftsmanship (organization, coherence, balance, refinement) • Technological tools (DAW, MIDI, virtual instruments, effects) • Analog tools (acoustic instruments, live recording equipment) • Development of musical ideas • Organization / structure • Expressive intent • Performance or presentation formats • Editing / refining techniques • Layering / arrangement • Audience • Production techniques	**MU:Cr3.2.T.IIa** • Share compositions and improvisations through performance or technology • Demonstrate accomplished musical and technological craftsmanship • Develop and organize musical ideas coherently • Apply digital and analog tools to realize musical intentions • Layer, arrange, and refine musical elements effectively • Apply expressive intent through dynamics, articulation, timbre, and texture • Edit, revise, and polish musical works for presentation • Explain compositional and technological choices using music vocabulary • Communicate meaning and structure to an audience • Integrate feedback to enhance musical and technological quality
Music Standards Glossary **Academic Vocabulary** • **Content Vocabulary** •	

Resources:

- **Soundtrap:**
  - https://www.soundtrap.com/home/edu/groups
    - Soundtrap educators detailed lesson plans to inspire classroom activities and to make learning fun. These are created by teachers for teachers! Find our entire lesson plan library in the left menu.
- **Audacity (Online)https://play.generative.fm/browse:** **https://www.offidocs.com/media/system/audacitygdrive/google-api-php-client/core/audacitydownload.php**

- Online Exercises:
  - **https://www.musictheory.net/exercises**
  - **https://www.savethemusic.org/music-education-resources/**
  - **https://www.carnegiehall.org/Explore/Learn/Music-Educators**
  - **https://www.musicalfuturesonline.org/resource-type/music-technology/**
  - **https://albumism.com/**
  - **https://www.pbs.org/opb/historydetectives/feature/the-art-of-turntablism/**
  - **https://music.ishkur.com/**
  - **https://www.cambridge-mt.com/ms/mtk/**
  - **https://play.generative.fm/browse**

Skill Practice:

- https://youdj.online/
- https://mp3cut.net/equalizer

Cross Cycle Tasks:
Suggestions:

- Have students begin reading a brief connected text at the end of the academic and finish during trade cycle.
- Use Google Forms for a questionnaire or survey about upcoming topic.
- Brief writing task related to end of cycle lesson or as a discussion piece for upcoming lesson.
- Student question development about upcoming topic. Provide question starters: *Classroom Question Stems* by Cormier; *DOK; Bloom's Taxonomy.*
- Quizlet Study Sets activity.

Last day of the Cycle:

- Students meet in small groups to read and discuss text they will create posts for:
  - Week 1: post 2 reflections and respond to 2 reflections
  - Week 2: post 2 questions or wonderings

First day of the New Cycle:

- Students meet in small groups to discuss reflection, response, and question posts

(approx. 15 minutes)

Assessments:

Formative Assessments:
REQUIRED:
Here is a bank of 17 formative assessment types for the course unit on the origins and principles of electronic music, designed to be quick (no more than 5 minutes each):

- 1. **Quick Quiz:** Multiple-choice or true/false questions on key historical milestones, such as the invention of early synthesizers or the contributions of pioneers like Leo Theremin and Robert Moog.

- 2. **Exit Ticket:** Write a one-sentence summary of the most important concept learned about sound synthesis today.

- 3. **Flashcard Review:** Use flashcards with key terms like "sampling," "sequencing," and "synthesis" on one side, and definitions or examples on the other; students quickly match them.

- 4. **1-Minute Essay:** In one minute, explain how Morton Subotnick's work influenced contemporary electronic music.

- 5. **Peer Teaching:** In pairs, have students briefly explain a principle of electronic music (e.g., how a synthesizer works) to each other.

- 6. **Quick Reflection:** Have students jot down one way electronic music has influenced a genre they listen to.

- 7. **Poll/Survey:** Conduct a quick poll on which technology (e.g., synthesizers, samplers) students find most interesting and why.

- 8. **Concept Map:** Quickly sketch a simple concept map linking terms like "sequencing," "sampling," and "synthesis" to their applications in music production.

- 9. **Think-Pair-Share:** Pose a question about the cultural impact of electronic music; have students think for 30 seconds, discuss with a partner, then share with the class.

- 10. **Audio Example Identification:** Play a short clip of electronic music and ask students to identify the technique used (e.g., sampling, synthesis).

- 11. **Thumbs Up/Thumbs Down:** Quickly assess understanding by asking students to give a thumbs up or down to statements about electronic music history or principles.

- 12. **Quick Sketch:** Have students sketch a simple diagram of an early synthesizer or the signal flow in a basic electronic music setup.

- 13. **Matching Activity:** Provide a list of electronic music pioneers and a list of their

contributions; students quickly match them.

- 14. **Soundtrap/Audacity Task:** Instruct students to complete a 2-minute task, like creating a basic loop or sample in Soundtrap or Audacity, and share with a partner.

- 15. **3-2-1 Activity:** Students quickly write down 3 things they learned, 2 things they found interesting, and 1 question they still have about electronic music.

- 16. Instrumental Performance

- 17. "Other ~ Teacher-directed

Summative Assessments:
REQUIRED:

Here are three summative assessment types for the course unit on the origins and principles of electronic music:

1. **Research Essay on a Pioneer of Electronic Music:**
Description: Students will write a significant-length essay (4-6 pages) on a key figure in the development of electronic music, such as Leo Theremin, Robert Moog, or Morton Subotnick. The essay should cover the individual's contributions to the field, the technological innovations they were involved in, and their influence on contemporary electronic music. Students should also analyze how their work has shaped modern music production and the cultural impact of their innovations.
Assessment Focus: Historical research, critical analysis, and synthesis of information.

2. **Original Composition Using Digital Tools:**
*Description:** Students will create an original electronic music composition using Soundtrap or Audacity, incorporating principles learned in the unit, such as sound synthesis, sampling, and sequencing. The composition should be 2-3 minutes in length and must demonstrate the application of historical and technical concepts discussed in class. Students will submit both the audio file and a brief written explanation (1-2 pages) of the techniques and concepts used, as well as how their work is inspired by the historical developments studied in the course.
Assessment Focus: Creative application, technical proficiency, and reflective writing.

3. **Student-Driven Project on the Cultural Impact of Electronic Music:**
Description: Students will select a topic related to the cultural impact of electronic music and present their findings through a medium of their choice (e.g., a 5-minute video presentation, a podcast episode, a digital poster, or a website). The project should explore how electronic music has influenced a specific genre, social movement, or cultural trend. The project must be approved by the teacher and include both a creative component and a written or verbal explanation of how electronic music has shaped cultural practices or social attitudes.
Assessment Focus: Research, creativity, critical thinking, and communication skills.

4. **Student-Driven Original Proposal & Teacher-Approved

Opportunities for Interdisciplinary Connections:

Musicians must connect all disciplines to be successful in our craft. When responding, creating and performing music we are not just musical, we are mathematicians, readers, historians and artists.

Connecticut Core Standards for Literacy in History/Social Studies, Science Technical Subjects
https://learning.ccsso.org/wp-content/uploads/2022/11/ELA_Standards1.pdf

Connecticut Elementary and Secondary Social Studies Standards: Social Studies Inquiry Arc

- Reading notes and lyrics from the staff, octavos and sheet music
- Connecting musical experiences with lived experiences through ourselves and others
- Learning historical context of the piece

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- Using math skills to count rhythm

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Standards for students that are aligned to priority standards
https://iste.org/standards/students

CTE Competency Standards

- Utilizing performances, projects and assignments that are able to connect to our trade technologies:
    - Aerospace Manufacturing
    - Architecture
    - Automotive Technology
    - Automotive Collision Repair and Refinishing
    - Bioscience and Environmental Technology
    - Biotechnology
    - Building and Civil Construction
    - Culinary Arts
    - Criminal Justice and Protective Services
    - Digital Media
    - Diesel and Heavy - Duty Equipment Repair
    - Electrical
    - Graphic Design
    - Heating

- Ventilation and Air Conditioning
- Health Technology
- Hairdressing and Cosmetology
- Information Technology
- Landscape Design
- Installation and Equipment
- Masonry
- Mechanical Design and Engineering Technology
- Precision Machining Technology
- Plumbing and Heating
- Plumbing, Heating and Cooling
- Robotics and Automation
- Tourism
- Hospitality and Guest Services Management
- Veterinary Science
- Welding and Metal Fabrication

Components of Social, Emotional, and Intellectual Habits

- Develop logic and reasoning/Critical and analytic thinking
- Use evidence and critical thinking to support claims, make arguments and critique the reasoning of others; explain own thinking and responds to others' thinking
- Develop logic and reasoning/Applying known information to new experiences
- Compare, contrast and evaluate experiences, tasks and events building on prior knowledge
- Develop logic and reasoning/Reasoning and problem solving
- Analyze attributes to classify, compare and contrast objects, events and experiences (similarities, differences and associations)
- Develop a positive attitude toward learning/Cooperation during learning experiences
- Listen, discuss, and negotiate ideas in order to discover new learning with peers

Electronic Music II Curriculum Unit 3

Priority Standards Addressed in Unit 3
MU:Pr5.1.C.IIa **Create rehearsal plans for works, identifying the form , repetition and variation within the form, and the style and historical or cultural context of the work .** **MU:Cr3.1.T.IIa** **Develop and implement varied strategies to improve and refine the technical and expressive aspects of draft compositions and improvisations.** **MU:Pr5.1.C.IIb** **Using established criteria and feedback, identify the ways in which performances convey the formal design , style, and historical/cultural context of the works.** **MU:Pr5.1.T.IIa** **Develop and implement rehearsal strategies to improve and refine the technical and expressive aspects of prepared and improvised performances in a varied repertoire of music.** **MU:Pr6.1.T.IIa** **Using digital tools and resources, demonstrate technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music representing diverse cultures, styles, and genres.** **MU:Pr6.1.T.IIb** **Demonstrate an understanding of the expressive intent when connecting with an audience through prepared and improvised performances.**
Big Ideas: ● The creative ideas, concepts, and feelings that influence musicians' work emerge from a variety of sources. ● Musicians' creative choices are influenced by their expertise, context, and expressive intent. ● Individuals' selection of musical works is influenced by their interests, experiences, understandings, and purposes. ● Response to music is informed by analyzing context (social, cultural, and historical) and how creators and performers manipulate the elements of music. ● Musicians connect their personal interests, experiences, ideas, and knowledge to creating, performing, and responding. ● Understanding connections to varied contexts and daily life enhances musicians' creating, performing, and responding.

- Performers' interest in and knowledge of musical works, understanding of their own technical skill, and the context for a performance influence the selection of repertoire.
- Analyzing creators' context and how they manipulate elements of music provides insight into their intent and informs performance.

Essential Questions:

- How do musicians generate creative ideas?
- How do musicians make creative decisions?
- How do individuals choose music to experience?
- How does understanding the structure and context of music inform a response?
- How do musicians make meaningful connections to creating, performing, and responding?
- How do the other arts, other disciplines, contexts, and daily life inform creating, performing, and responding to music?
- How do performers select repertoire?
- How does understanding the structure and context of musical works inform performance?

Learning Outcomes

Students will know:	***As evidenced by: (oral, written, or performance):***
MU:Pr5.1.C.IIa ● Rehearsal plan / strategy ● Form (binary, ternary, rondo, sectional) ● Repetition ● Variation ● Style / genre ● Historical context ● Cultural context ● Musical work / composition ● Sections / phrases / motifs ● Musical elements (melody, rhythm, harmony, dynamics, timbre, texture, articulation) ● Performance practice ● Ensemble / solo performance considerations ● Expressive intent	**MU:Pr5.1.C.IIa** ● Create structured rehearsal plans ● Identify form, repetition, and variation in a work ● Analyze style, historical, and cultural context ● Break works into sections for focused rehearsal ● Determine technical and expressive challenges in the music ● Prioritize rehearsal focus based on analysis ● Apply insights from context and form to rehearsal strategies ● Adjust pacing, sequencing, and grouping of rehearsal tasks ● Communicate rehearsal plan and reasoning to peers or instructor ● Reflect on effectiveness of rehearsal

	strategies and revise as needed
MU:Cr3.1.T.IIa ● Draft composition / improvisation ● Technical aspects (rhythm, pitch, articulation, timing, accuracy) ● Expressive aspects (dynamics, phrasing, texture, timbre, mood) ● Musical ideas / motifs / phrases ● Development / refinement ● Revision strategies ● Digital tools (DAW, MIDI, virtual instruments) ● Analog tools (instruments, recording devices) ● Form / structure ● Expressive intent ● Self-assessment techniques ● Feedback / critique ● Layering / arrangement	**MU:Cr3.1.T.IIa** ● Develop strategies to refine musical drafts ● Implement revisions to improve technical accuracy ● Apply expressive elements to enhance musical impact ● Experiment with melody, rhythm, harmony, and texture ● Use digital and/or analog tools to adjust musical ideas ● Layer and organize parts to improve clarity and coherence ● Evaluate drafts for effectiveness of technical and expressive choices ● Incorporate feedback from self, peers, or instructor ● Reflect on improvements and adjust strategies accordingly ● Communicate refinement decisions using appropriate music vocabulary
MU:Pr5.1.C.IIb ● Established criteria / evaluation guidelines ● Feedback / critique ● Performance ● Formal design / structure (binary, ternary, rondo, sectional) ● Style / genre ● Historical context ● Cultural context ● Musical elements (melody, rhythm, harmony, dynamics, timbre, texture, articulation) ● Expressive intent ● Phrasing / articulation ● Repetition / variation ● Audience perception ● Interpretation	**MU:Pr5.1.C.IIb** ● Analyze performances using established criteria ● Identify how performances reflect formal design ● Recognize stylistic and genre characteristics in performance ● Connect historical and cultural context to performance choices ● Interpret phrasing, dynamics, articulation, and texture for expressive effect ● Compare performances to identify different approaches ● Apply feedback to refine personal or ensemble understanding ● Explain how musical elements convey meaning and context ● Reflect on effectiveness of performance in communicating intent ● Justify observations using music vocabulary
MU:Pr5.1.T.IIa ● Rehearsal strategies / techniques	**MU:Pr5.1.T.IIa** ● Develop rehearsal strategies for

● Technical aspects (rhythm, pitch, articulation, timing, accuracy) ● Expressive aspects (dynamics, phrasing, timbre, texture, mood) ● Prepared performance ● Improvised performance ● Repertoire (varied genres / styles) ● Musical elements (melody, harmony, rhythm, texture, form, articulation, dynamics) ● Form / structure ● Expressive intent ● Feedback / self-assessment ● Ensemble or solo performance considerations ● Digital and analog performance tools	improving performance ● Implement techniques to refine technical accuracy ● Apply expressive elements to enhance musical impact ● Plan rehearsal approaches for both prepared and improvised music ● Adjust phrasing, dynamics, articulation, and tempo for expression ● Use digital and analog tools to support performance refinement ● Evaluate performances for effectiveness using self-assessment and feedback ● Integrate rehearsal strategies to improve clarity, balance, and expression ● Reflect on the success of rehearsal techniques and revise as needed ● Communicate rehearsal plans and reasoning using music vocabulary
MU:Pr6.1.T.IIa ● Digital tools and resources (DAW, MIDI, virtual instruments, effects) ● Technical aspects (pitch, rhythm, articulation, timing, accuracy) ● Expressive qualities (dynamics, phrasing, texture, timbre, mood) ● Prepared performance ● Improvised performance ● Repertoire (diverse cultures, styles, genres) ● Musical elements (melody, harmony, rhythm, texture, form, articulation, dynamics) ● Form / structure ● Style / genre conventions ● Cultural context ● Expressive intent ● Audience	**MU:Pr6.1.T.IIa** ● Demonstrate technical accuracy in performance using digital tools ● Apply expressive qualities to communicate meaning in music ● Perform prepared works with precision and expression ● Improvise musical material appropriate to style, genre, and context ● Integrate digital resources effectively into performance ● Adjust phrasing, dynamics, articulation, and texture for expressive effect ● Reflect on cultural, stylistic, and genre-specific characteristics ● Balance and blend multiple layers or tracks in digital performance ● Evaluate personal and peer performances for technical and expressive success ● Use feedback to refine both prepared and improvised performances
MU:Pr6.1.T.IIb ● Expressive intent ● Audience / listener perception ● Prepared performance	**MU:Pr6.1.T.IIb** ● Demonstrate expressive intent in performance ● Connect with an audience through

• Improvised performance • Musical elements (melody, harmony, rhythm, dynamics, timbre, texture, articulation, form) • Style / genre • Mood / emotion • Performance techniques • Phrasing / articulation • Timing / tempo • Cultural context • Communication strategies • Feedback / response	musical choices • Perform both prepared and improvised works with awareness of expression • Adjust dynamics, articulation, phrasing, and tempo for expressive effect • Communicate mood, style, and emotion through music • Reflect on audience response and adapt performance accordingly • Apply knowledge of style, genre, and context to enhance connection • Integrate performance techniques to convey meaning • Evaluate effectiveness of expressive communication • Use feedback to refine expressive performance

Music Standards Glossary

Academic Vocabulary

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Content Vocabulary

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Resources:

- **Soundtrap:**
  - https://www.soundtrap.com/home/edu/groups
    - Soundtrap educators detailed lesson plans to inspire classroom activities and to make learning fun. These are created by teachers for teachers! Find our entire lesson plan library in the left menu.
- **Audacity (Online)https://play.generative.fm/browse:** **https://www.offidocs.com/media/system/audacitygdrive/google-api-php-client/core/audacitydownload.php**

- Online Exercises:
  - **https://www.musictheory.net/exercises**
  - **https://www.savethemusic.org/music-education-resources/**
  - **https://www.carnegiehall.org/Explore/Learn/Music-Educators**
  - **https://www.musicalfuturesonline.org/resource-type/music-technology/**
  - **https://albumism.com/**
  - **https://www.pbs.org/opb/historydetectives/feature/the-art-of-turntablism/**
  - **https://music.ishkur.com/**
  - **https://www.cambridge-mt.com/ms/mtk/**
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Skill Practice:

- https://youdj.online/
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Cross Cycle Tasks:
Suggestions:

- Have students begin reading a brief connected text at the end of the academic and finish during trade cycle.
- Use Google Forms for a questionnaire or survey about upcoming topic.
- Brief writing task related to end of cycle lesson or as a discussion piece for upcoming lesson.
- Student question development about upcoming topic. Provide question starters: *Classroom Question Stems* by Cormier; *DOK; Bloom's Taxonomy.*
- Quizlet Study Sets activity.

Last day of the Cycle:

- Students meet in small groups to read and discuss text they will create posts for:
    - Week 1: post 2 reflections and respond to 2 reflections
    - Week 2: post 2 questions or wonderings

First day of the New Cycle:

- Students meet in small groups to discuss reflection, response, and question posts (approx. 15 minutes)

Assessments:

Formative Assessments:
REQUIRED:
Here is a bank of 17 formative assessment types for the course unit on the origins and principles of electronic music, designed to be quick (no more than 5 minutes each):

- 1. **Quick Quiz:** Multiple-choice or true/false questions on key historical milestones, such as the invention of early synthesizers or the contributions of pioneers like Leo Theremin and Robert Moog.

- 2. **Exit Ticket:** Write a one-sentence summary of the most important concept learned about sound synthesis today.

- 3. **Flashcard Review:** Use flashcards with key terms like "sampling," "sequencing," and "synthesis" on one side, and definitions or examples on the other; students quickly match them.

- 4. **1-Minute Essay:** In one minute, explain how Morton Subotnick’s work influenced contemporary electronic music.

- 5. **Peer Teaching:** In pairs, have students briefly explain a principle of electronic music (e.g., how a synthesizer works) to each other.

- 6. **Quick Reflection:** Have students jot down one way electronic music has influenced a genre they listen to.
- 7. **Poll/Survey:** Conduct a quick poll on which technology (e.g., synthesizers, samplers) students find most interesting and why.
- 8. **Concept Map:** Quickly sketch a simple concept map linking terms like "sequencing," "sampling," and "synthesis" to their applications in music production.
- 9. **Think-Pair-Share:** Pose a question about the cultural impact of electronic music; have students think for 30 seconds, discuss with a partner, then share with the class.
- 10. **Audio Example Identification:** Play a short clip of electronic music and ask students to identify the technique used (e.g., sampling, synthesis).
- 11. **Thumbs Up/Thumbs Down:** Quickly assess understanding by asking students to give a thumbs up or down to statements about electronic music history or principles.
- 12. **Quick Sketch:** Have students sketch a simple diagram of an early synthesizer or the signal flow in a basic electronic music setup.
- 13. **Matching Activity:** Provide a list of electronic music pioneers and a list of their contributions; students quickly match them.
- 14. **Soundtrap/Audacity Task:** Instruct students to complete a 2-minute task, like creating a basic loop or sample in Soundtrap or Audacity, and share with a partner.
- 15. **3-2-1 Activity:** Students quickly write down 3 things they learned, 2 things they found interesting, and 1 question they still have about electronic music.
- 16. Instrumental Performance
- 17. "Other ~ Teacher-directed

Summative Assessments:
REQUIRED:

Here are three summative assessment types for the course unit on the origins and principles of electronic music:

1. **Research Essay on a Pioneer of Electronic Music:**
Description: Students will write a significant-length essay (4-6 pages) on a key figure in the development of electronic music, such as Leo Theremin, Robert Moog, or Morton Subotnick. The essay should cover the individual's contributions to the field, the technological innovations they were involved in, and their influence on contemporary electronic music. Students should also analyze how their work has shaped modern music production and the cultural impact of their innovations.
Assessment Focus: Historical research, critical analysis, and synthesis of information.

2. **Original Composition Using Digital Tools:**
*Description:** Students will create an original electronic music composition using Soundtrap or Audacity, incorporating principles learned in the unit, such as sound synthesis, sampling, and sequencing. The composition should be 2-3 minutes in length and must demonstrate the application of historical and technical concepts discussed in class. Students will submit both the audio file and a brief written explanation (1-2 pages) of the techniques and concepts used, as well as how their work is inspired by the historical developments studied in the course.
Assessment Focus: Creative application, technical proficiency, and reflective writing.

3. **Student-Driven Project on the Cultural Impact of Electronic Music:**
Description: Students will select a topic related to the cultural impact of electronic music and present their findings through a medium of their choice (e.g., a 5-minute video presentation, a podcast episode, a digital poster, or a website). The project should explore how electronic music has influenced a specific genre, social movement, or cultural trend. The project must be approved by the teacher and include both a creative component and a written or verbal explanation of how electronic music has shaped cultural practices or social attitudes.
Assessment Focus: Research, creativity, critical thinking, and communication skills.

4. **Student-Driven Original Proposal & Teacher-Approved

Opportunities for Interdisciplinary Connections:

Musicians must connect all disciplines to be successful in our craft. When responding, creating and performing music we are not just musical, we are mathematicians, readers, historians and artists.

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    - Digital Media
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    - Electrical
    - Graphic Design
    - Heating
    - Ventilation and Air Conditioning
    - Health Technology
    - Hairdressing and Cosmetology
    - Information Technology
    - Landscape Design
    - Installation and Equipment
    - Masonry
    - Mechanical Design and Engineering Technology
    - Precision Machining Technology
    - Plumbing and Heating
    - Plumbing, Heating and Cooling
    - Robotics and Automation
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    - Hospitality and Guest Services Management
    - Veterinary Science
    - Welding and Metal Fabrication

Components of Social, Emotional, and Intellectual Habits

- Develop logic and reasoning/Critical and analytic thinking
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- Analyze attributes to classify, compare and contrast objects, events and experiences (similarities, differences and associations)
- Develop a positive attitude toward learning/Cooperation during learning experiences
- Listen, discuss, and negotiate ideas in order to discover new learning with peers

Electronic Music II Curriculum Unit 4

Priority Standards Addressed in Unit 4
MU:Pr5.1.C.IIc **Identify and implement strategies for improving the technical and expressive aspects of varied works.** **MU:Re8.1.T.IIa Connect the influence of the treatment of the elements of music, digital and electronic features, context , purpose, and other art forms to the expressive intent of musical works.** **MU:Re9.1.T.IIa** **Apply criteria to evaluate music based on analysis, interpretation, artistic intent , digital, electronic, and analog features, and musical qualities.** **MU:Cr3.2.T.IIIa** **Share a portfolio of musical creations representing varied styles and genres that demonstrates an advanced level of musical and technological craftsmanship as well as the use of digital and analog tools, resources and systems in developing and organizing musical ideas.**
Big Ideas: ● The creative ideas, concepts, and feelings that influence musicians' work emerge from a variety of sources. ● Musicians' creative choices are influenced by their expertise, context, and expressive intent. ● Individuals' selection of musical works is influenced by their interests, experiences, understandings, and purposes. ● Response to music is informed by analyzing context (social, cultural, and historical) and how creators and performers manipulate the elements of music. ● Musicians connect their personal interests, experiences, ideas, and knowledge to creating, performing, and responding. ● Understanding connections to varied contexts and daily life enhances musicians' creating, performing, and responding. ● Performers' interest in and knowledge of musical works, understanding of their own technical skill, and the context for a performance influence the selection of repertoire. ● Analyzing creators' context and how they manipulate elements of music provides insight into their intent and informs performance.

Essential Questions:

- How do musicians generate creative ideas?
- How do musicians make creative decisions?
- How do individuals choose music to experience?
- How does understanding the structure and context of music inform a response?
- How do musicians make meaningful connections to creating, performing, and responding?
- How do the other arts, other disciplines, contexts, and daily life inform creating, performing, and responding to music?
- How do performers select repertoire?
- How does understanding the structure and context of musical works inform performance?

Learning Outcomes

Students will know:	***As evidenced by: (oral, written, or performance):***
MU:Pr5.1.C.IIc ● Rehearsal strategies ● Practice techniques ● Technical aspects (pitch, rhythm, articulation, timing, accuracy) ● Expressive aspects (dynamics, phrasing, timbre, texture, mood) ● Musical elements (melody, harmony, rhythm, form) ● Varied works / repertoire ● Style / genre ● Performance challenges ● Expressive intent ● Feedback / critique ● Self-assessment ● Interpretation	**MU:Pr5.1.C.IIc** ● Identify technical and expressive challenges in varied works ● Select appropriate strategies for improvement ● Implement rehearsal and practice techniques effectively ● Refine pitch, rhythm, timing, and articulation for accuracy ● Apply dynamics, phrasing, and tone color for expressive effect ● Adjust performance based on stylistic and contextual understanding ● Use feedback to guide refinement ● Monitor progress through self-assessment ● Modify strategies to address ongoing challenges ● Demonstrate measurable improvement in performance quality
MU:Re8.1.T.IIa ● Elements of music (melody, rhythm, harmony, dynamics, timbre, texture, form)	**MU:Re8.1.T.IIa** ● Analyze how musical elements shape expressive intent

● Digital features (MIDI, synthesis, sampling, effects processing, looping) ● Electronic features (sound design, modulation, automation, layering) ● Context (historical, cultural, social) ● Purpose / function of music ● Expressive intent ● Musical works ● Genre / style ● Production techniques ● Other art forms (film, visual art, dance, multimedia) ● Audience perception ● Interpretation ● Compositional techniques	● Connect digital and electronic features to emotional or artistic impact ● Explain how production choices influence meaning ● Relate context and purpose to interpretation of musical works ● Compare relationships between music and other art forms ● Cite specific musical and technological features as evidence ● Evaluate how sound design contributes to expression ● Interpret how genre and style affect expressive communication ● Reflect on how artistic choices shape audience perception ● Apply analytical insights to personal composition or performance decisions
MU:Re9.1.T.IIa ● Evaluation criteria ● Musical analysis ● Interpretation ● Artistic intent ● Digital features (MIDI, synthesis, effects, looping, automation) ● Electronic features (sound design, modulation, layering) ● Analog features (acoustic instruments, live recording elements) ● Musical qualities (melody, rhythm, harmony, form, dynamics, timbre, texture) ● Production techniques ● Style / genre ● Context / purpose ● Audience perception ● Craftsmanship	**MU:Re9.1.T.IIa** ● Apply established criteria to evaluate music ● Analyze musical and technological elements ● Interpret expressive intent in musical works ● Assess digital, electronic, and analog features for effectiveness ● Cite evidence from musical elements and production choices ● Compare works using consistent evaluation standards ● Judge overall musical craftsmanship and coherence ● Explain evaluations using appropriate music vocabulary ● Reflect on how analysis informs personal composition or performance ● Provide constructive feedback supported by criteria
MU:Cr3.2.T.IIIa ● Portfolio (curated body of work) ● Musical creations / compositions / improvisations ● Styles / genres (varied repertoire) ● Advanced musical craftsmanship (coherence, balance, sophistication, originality)	**MU:Cr3.2.T.IIIa** ● Curate and share a cohesive portfolio of musical works ● Demonstrate advanced musical craftsmanship across varied styles ● Integrate digital and analog tools effectively in production

• Advanced technological craftsmanship (production quality, editing precision, system integration) • Digital tools (DAW, MIDI, virtual instruments, synthesis, effects processing) • Analog tools (acoustic instruments, hardware synthesizers, live recording equipment) • Production systems (signal flow, routing, mixing environments) • Development of musical ideas (motif, variation, thematic transformation) • Organization / large-scale form • Expressive intent • Artistic identity • Audience / presentation format	• Develop and organize complex musical ideas into extended forms • Apply advanced production techniques (layering, mixing, sound design) • Refine works to a high level of technical and expressive quality • Adapt compositional approaches to different genres • Demonstrate consistency and growth across portfolio pieces • Present works professionally using appropriate formats and systems • Explain artistic and technological decisions using advanced music vocabulary

Music Standards Glossary

Academic Vocabulary

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Content Vocabulary

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Resources:

- **Soundtrap:**
  - https://www.soundtrap.com/home/edu/groups
    - Soundtrap educators detailed lesson plans to inspire classroom activities and to make learning fun. These are created by teachers for teachers! Find our entire lesson plan library in the left menu.
- **Audacity (Online)https://play.generative.fm/browse:** **https://www.offidocs.com/media/system/audacitygdrive/google-api-php-client/core/audacitydownload.php**

- Online Exercises:
  - **https://www.musictheory.net/exercises**
  - **https://www.savethemusic.org/music-education-resources/**
  - **https://www.carnegiehall.org/Explore/Learn/Music-Educators**
  - **https://www.musicalfuturesonline.org/resource-type/music-technology/**
  - **https://albumism.com/**
  - **https://www.pbs.org/opb/historydetectives/feature/the-art-of-turntablism/**
  - **https://music.ishkur.com/**
  - **https://www.cambridge-mt.com/ms/mtk/**
  - **https://play.generative.fm/browse**

Skill Practice:

- https://youdj.online/
- https://mp3cut.net/equalizer

Cross Cycle Tasks:
Suggestions:

- Have students begin reading a brief connected text at the end of the academic and finish during trade cycle.
- Use Google Forms for a questionnaire or survey about upcoming topic.
- Brief writing task related to end of cycle lesson or as a discussion piece for upcoming lesson.
- Student question development about upcoming topic. Provide question starters: *Classroom Question Stems* by Cormier; *DOK; Bloom's Taxonomy.*
- Quizlet Study Sets activity.

Last day of the Cycle:

- Students meet in small groups to read and discuss text they will create posts for:
    - Week 1: post 2 reflections and respond to 2 reflections
    - Week 2: post 2 questions or wonderings

First day of the New Cycle:

- Students meet in small groups to discuss reflection, response, and question posts (approx. 15 minutes)

Assessments:

Formative Assessments:
REQUIRED:
Here is a bank of 17 formative assessment types for the course unit on the origins and principles of electronic music, designed to be quick (no more than 5 minutes each):

- 1. **Quick Quiz:** Multiple-choice or true/false questions on key historical milestones, such as the invention of early synthesizers or the contributions of pioneers like Leo Theremin and Robert Moog.

- 2. **Exit Ticket:** Write a one-sentence summary of the most important concept learned about sound synthesis today.

- 3. **Flashcard Review:** Use flashcards with key terms like "sampling," "sequencing," and "synthesis" on one side, and definitions or examples on the other; students quickly match them.

- 4. **1-Minute Essay:** In one minute, explain how Morton Subotnick’s work influenced contemporary electronic music.

- 5. **Peer Teaching:** In pairs, have students briefly explain a principle of electronic music (e.g., how a synthesizer works) to each other.

- 6. **Quick Reflection:** Have students jot down one way electronic music has influenced a genre they listen to.
- 7. **Poll/Survey:** Conduct a quick poll on which technology (e.g., synthesizers, samplers) students find most interesting and why.
- 8. **Concept Map:** Quickly sketch a simple concept map linking terms like "sequencing," "sampling," and "synthesis" to their applications in music production.
- 9. **Think-Pair-Share:** Pose a question about the cultural impact of electronic music; have students think for 30 seconds, discuss with a partner, then share with the class.
- 10. **Audio Example Identification:** Play a short clip of electronic music and ask students to identify the technique used (e.g., sampling, synthesis).
- 11. **Thumbs Up/Thumbs Down:** Quickly assess understanding by asking students to give a thumbs up or down to statements about electronic music history or principles.
- 12. **Quick Sketch:** Have students sketch a simple diagram of an early synthesizer or the signal flow in a basic electronic music setup.
- 13. **Matching Activity:** Provide a list of electronic music pioneers and a list of their contributions; students quickly match them.
- 14. **Soundtrap/Audacity Task:** Instruct students to complete a 2-minute task, like creating a basic loop or sample in Soundtrap or Audacity, and share with a partner.
- 15. **3-2-1 Activity:** Students quickly write down 3 things they learned, 2 things they found interesting, and 1 question they still have about electronic music.
- 16. Instrumental Performance
- 17. "Other ~ Teacher-directed

Summative Assessments:
REQUIRED:

Here are three summative assessment types for the course unit on the origins and principles of electronic music:

1. **Research Essay on a Pioneer of Electronic Music:**
Description: Students will write a significant-length essay (4-6 pages) on a key figure in the development of electronic music, such as Leo Theremin, Robert Moog, or Morton Subotnick. The essay should cover the individual's contributions to the field, the technological innovations they were involved in, and their influence on contemporary electronic music. Students should also analyze how their work has shaped modern music production and the cultural impact of their innovations.
Assessment Focus: Historical research, critical analysis, and synthesis of information.

2. **Original Composition Using Digital Tools:**
*Description:** Students will create an original electronic music composition using Soundtrap or Audacity, incorporating principles learned in the unit, such as sound synthesis, sampling, and sequencing. The composition should be 2-3 minutes in length and must demonstrate the application of historical and technical concepts discussed in class. Students will submit both the audio file and a brief written explanation (1-2 pages) of the techniques and concepts used, as well as how their work is inspired by the historical developments studied in the course.
Assessment Focus: Creative application, technical proficiency, and reflective writing.

3. **Student-Driven Project on the Cultural Impact of Electronic Music:**
Description: Students will select a topic related to the cultural impact of electronic music and present their findings through a medium of their choice (e.g., a 5-minute video presentation, a podcast episode, a digital poster, or a website). The project should explore how electronic music has influenced a specific genre, social movement, or cultural trend. The project must be approved by the teacher and include both a creative component and a written or verbal explanation of how electronic music has shaped cultural practices or social attitudes.
Assessment Focus: Research, creativity, critical thinking, and communication skills.

4. **Student-Driven Original Proposal & Teacher-Approved

Opportunities for Interdisciplinary Connections:

Musicians must connect all disciplines to be successful in our craft. When responding, creating and performing music we are not just musical, we are mathematicians, readers, historians and artists.

Connecticut Core Standards for Literacy in History/Social Studies, Science Technical Subjects
https://learning.ccsso.org/wp-content/uploads/2022/11/ELA_Standards1.pdf

Connecticut Elementary and Secondary Social Studies Standards: Social Studies Inquiry Arc

- Reading notes and lyrics from the staff, octavos and sheet music
- Connecting musical experiences with lived experiences through ourselves and others
- Learning historical context of the piece

Mathematical Practice Standards
- Using math skills to count rhythm

Next Generation Science Standards
Standards for students that are aligned to priority standards

https://www.nextgenscience.org/search-standards

International Society for Technology in Education (ISTE)

Standards for students that are aligned to priority standards

https://iste.org/standards/students

CTE Competency Standards

- Utilizing performances, projects and assignments that are able to connect to our trade technologies:
    - Aerospace Manufacturing
    - Architecture
    - Automotive Technology
    - Automotive Collision Repair and Refinishing
    - Bioscience and Environmental Technology
    - Biotechnology
    - Building and Civil Construction
    - Culinary Arts
    - Criminal Justice and Protective Services
    - Digital Media
    - Diesel and Heavy - Duty Equipment Repair
    - Electrical
    - Graphic Design
    - Heating
    - Ventilation and Air Conditioning
    - Health Technology
    - Hairdressing and Cosmetology
    - Information Technology
    - Landscape Design
    - Installation and Equipment
    - Masonry
    - Mechanical Design and Engineering Technology
    - Precision Machining Technology
    - Plumbing and Heating
    - Plumbing, Heating and Cooling
    - Robotics and Automation
    - Tourism
    - Hospitality and Guest Services Management
    - Veterinary Science
    - Welding and Metal Fabrication

Components of Social, Emotional, and Intellectual Habits

- Develop logic and reasoning/Critical and analytic thinking
- Use evidence and critical thinking to support claims, make arguments and critique the reasoning of others; explain own thinking and responds to others' thinking
- Develop logic and reasoning/Applying known information to new experiences

- Compare, contrast and evaluate experiences, tasks and events building on prior knowledge
- Develop logic and reasoning/Reasoning and problem solving
- Analyze attributes to classify, compare and contrast objects, events and experiences (similarities, differences and associations)
- Develop a positive attitude toward learning/Cooperation during learning experiences
- Listen, discuss, and negotiate ideas in order to discover new learning with peers