

# Unit 01: Tone Production in the String Ensemble

Content Area: **Music**  
Course(s):  
Time Period:  
Length: **Ongoing**  
Status: **Published**

## **Brief Summary of Unit - Revised June 2021**

---

The Tone Production Unit will explore right-hand skills, bow mechanics and musical articulation. Students will study and develop techniques for proper bow distribution with a focus on bowing at the sounding point (parallel to the bridge). Students will identify bow distribution concepts as applied to common rhythmic patterns while incorporating various articulations and styles. By the end of the unit, students will apply their knowledge of right-hand bow mechanics to compare, differentiate, and analyze appropriate techniques for tone production. An understanding of bowing concepts and mechanics will enhance the student's ability to interpret, perform and respond to a range of expressive musical idioms.

## **Standards**

---

ELD standards: <https://docs.google.com/document/d/1wdmsiGOdCHlrjU-WPvAtENnEgi0EStZXo0uiFYv1Nu4/edit>

The identified standards reflect a developmental progression across grades/ levels and make interdisciplinary connections across content areas including social sciences, technology, career readiness, cultural awareness and global citizenship. The standards that follow are relevant to this course in addition to the associated content-based standards listed below.

MU.9-12.1.3C.12prof.Pr5a	Develop strategies to address expressive challenges in a varied repertoire of music, and evaluate their success using feedback from ensemble peers and other sources to refine performances.
MU.9-12.1.3C.12prof.Pr6a	Demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music representing diverse cultures, styles, and genres.
MU.9-12.1.3C.12prof.Pr6b	Demonstrate an understanding of expressive intent by connecting with an audience through prepared and improvised performances.
MU.9-12.1.3E.12acc.Pr6a	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.K-12.1.3C.12int.Pr4a	Select varied repertoire to study based on music reading skills (where appropriate), an understanding of formal design in the music, context, and the technical skill of the individual and ensemble.
MU.K-12.1.3C.12int.Pr4b	Demonstrate, using music reading skills (where appropriate), how the setting and formal characteristics of musical works contribute to understanding the context of the music in prepared or improvised performances.
MU.K-12.1.3C.12int.Pr4c	Demonstrate understanding and application of expressive qualities in a varied repertoire of music through prepared and improvised performances.

MU.K-12.1.3C.12int.Re7b	Describe how understanding context and the way the elements of music are manipulated inform the response to music.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP11	Use technology to enhance productivity.
SEL.PK-12.1	Self-Awareness
SEL.PK-12.2	Self-Management
SEL.PK-12.3	Social Awareness
SEL.PK-12.4	Responsible Decision-Making
SEL.PK-12.5	Relationship Skills
TECH.8.1.8	<p>Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.</p> <p>A sound wave needs a medium through which it is transmitted.</p> <p>A simple wave has a repeating pattern with a specific wavelength, frequency, and amplitude.</p>

## Transfer

---

- Apply technology as a tool
- • Critique the role of tone production, articulations, and style in musical expression
- • Employ the elements of effective bow technique, including bow placement, speed, pressure, direction, and distribution
- • Listen and identify how articulations contribute to aesthetic qualities in ensemble performance
- • Listen and identify how tone production affects the aesthetic qualities of ensemble performance
- • Manipulate the elements of bow direction and distribution to effectively execute a musical example

## Essential Questions

---

- • How are bow speed, placement, and pressure related? Does altering one aspect of bow usage necessitate altering another?
- • How do different bow patterns (slurs, hooked bows) affect the style and playability of different rhythmic patterns?
- • How do different bowing techniques shape the tone and musical style in an ensemble performance? (e.g., detache, martele, spiccato, legato)
- • How do we interpret and perform articulations in an ensemble?
- • How do we interpret and perform with an awareness of bow direction and distribution?
- • How do we interpret and perform with an awareness of bow placement, bow pressure, and bow speed?

- • How does bow placement, pressure, and speed affect tone production individually and in an ensemble?
- • How does bow usage and technique create musical expression in an ensemble? (e.g., rhythm, tone, dynamics, timbre, texture)
- • How does the sounding point contribute to sound quality?
- How do individuals choose music to experience? How does understanding the structure and context of music inform a response?
- How do musicians improve the quality of their performance?
- How do performers select repertoire?
- When is a performance judged ready to present? How do context and the manner in which musical work is presented influence audience response?

## Essential Understandings

---

- • Bow distribution actualizes the most effective balance of the aspects of bow usage.
- • Different musical styles require specific articulations and bow placements.
- • Successful ensemble performance relies on a shared interpretation of bowing and stylistic elements.
- • The audience/listener experiences and responds to the sound landscape that is a result of articulation, bow technique, and timbre.
- • Tone production in an ensemble relies on every individual musician's right hand technique and awareness of bow usage and distribution.
- • Tone production is a function of bow usage, including bow placement, pressure, and speed.
- • Tone production is a key component of string ensemble performance.
- Bow distribution actualizes the most effective balance of the aspects of bow usage.
- Musicians judge performance based on criteria that vary across time, place, and cultures. The context and how a work is presented influence the audience response.
- 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.
- Technology can be applied to reflect upon and improve performance.
- To express their musical ideas, musicians analyze, evaluate, and refine their performance over time through openness to new ideas, persistence, and the application of appropriate criteria.

## Students Will Know

---

- Bow placement, speed, pressure, distribution, and articulation shape the musical expression of the ensemble performance.
- Bowing placement imparts the performance with a unique quality.
- Changes in bow location create differences that will affect individual and ensemble tone production.
- Changes in bow speed, pressure, placement, and distribution create tonal, timbral and stylistic musical differences.
- Every articulation creates a unique stylistic element.
- Level 1 (approximately the 6th grade year): • The three factors of bow usage: placement,

pressure, and speed • How to differentiate between at least two gradations of placement, pressure, and speed • Proper bow technique for detaché and staccato bow strokes, including slurs and hooked bows, placed at the sounding point • At least two zones of bow distribution: lower half and upper half • An articulation affects the attack of a note and creates a unique stylistic element. • Manipulation of the three factors of bow usage and bow distribution affects dynamics and tone.

- Level 2 (approximately the 7th grade year): • Changes in bow placement, pressure, and speed create tonal, timbral, and stylistic musical differences. • How to differentiate between at least three gradations of placement, pressure, and speed • Proper bow technique for spiccato bow stroke •

At least three zones of bow distribution: lower half, middle, and upper half • Various articulations found in musical examples used in class (e.g. exercises, scales, concert repertoire) • Bow placement, speed, and pressure, along with bow distribution and articulation, shape the musical expression of an ensemble performance.

- Level 3 (approximately the 8th grade year): • Changes in bow usage and distribution create differences that will affect individual and ensemble tone production. • How to manipulate several gradations of placement, pressure, and speed • How to refine the zones of bow distribution to include the frog, balance point, and tip • Bowing placement can create a unique performance quality • How to aurally identify sultasto and sulponticello

## **Students Will Be Skilled At**

---

- Affecting the dynamics of the performance through bow technique
- Applying a bow lift (retake) when appropriate
- Bowing near the fingerboard (sul tasto), in the middle, and near the bridge (sul ponticello)
- Bowing near the middle, tip, and frog to produce different tone and timbre
- Bowing using the back of the bow (col legno)
- Bowing with an awareness of up and down direction, speed, and pressure
- Hearing the differences of tone and timbre produced by bow technique
- Level 1 (approximately the 6th grade year): • Placing their bow at the sounding (contact) point • Performing with proper bow technique, parallel to the bridge, with a consistent tone • Performing detaché and staccato bow strokes, including slurs and hooked bows • Bowing with an awareness of up and down direction, speed, and pressure • Applying a bow lift (retake) when appropriate • Identifying articulation markings in notated music and defining the articulation
- Level 2 (approximately the 7th grade year): • Employing the dynamics of a musical example through manipulation of the three aspects of bow usage. The dynamics explored will include piano, mezzo piano, mezzo forte, forte, crescendo, and decrescendo • Staccato, tenuto, slurs, slurred-staccato, and various hooked bowing articulations • Bowing near the fingerboard (sultasto), in the middle, and near the bridge (sulponticello) • Bowing in the lower half, upper half, and middle to produce different tone and timbre • Identifying the elements of and developing the execution of a spiccato bow stroke
- Level 3 (approximately the 8th grade year): • Hearing the differences of tone and timbre produced by all aspects of bow technique studied in class • Performing various articulations to produce different stylistic elements • Expanding bow distribution to include the balance point and extreme frog and tip • Refining the spiccato bow stroke and exploring different tempi and bow placements • Expanding the dynamic palette to include pianissimo, fortissimo, and subito dynamics • Exploring extended bowing techniques, such as col legno
- Performing various articulations to produce different stylistic elements
- Performing with good bow technique, parallel to the bridge, with a consistent tone and quality
- Placing their bow at the sounding (contact) point
- Staccato, tenuto, slurs, slurred-staccato, and various hooked bowing articulations

- Using technology to capture their performances

## **Evidence/Performance Tasks**

---

Fine and Performing Arts students demonstrate differentiated proficiency according to their ability to answer the essential questions through formative and summative assessments. Evidence of progression may be demonstrated in divergent ways through the Artistic Processes of Creating, Performing/ Presenting/ Producing, Connecting, and Responding.

- • Apply knowledge of bow technique concepts in exercises and concert literature
- • Assess understanding of articulation types and bow patterns
- • Assessments of proper bow technique
- • Guided improvisation
- • Interpret and perform musical passages with the bowings and articulations indicated
- Analyze and perform method book exercises that introduce and reinforce tone production
- Demonstrate ability to perform passages with multiple approaches to tone production. Students will compare, contrast, and evaluate the musical effect of tone production
- Listen and critique recordings discussing the effect of articulation, bowing types, bow placement, and tone production on stylistic expression.
- Listen and critique recordings to analyze the way elements of tone production function in music
- Partner pairing of students to discuss approaches to tone production in a musical excerpt
- Perform a scale applying a particular articulation/use of tone of their choosing.
- Perform and critique the effects of altering a bowing pattern, bowing articulation, and bow distribution
- Perform and critique the effects of changing the tone when altering bowing direction, bowing speed, bow pressure and sounding point
- Perform exercises applying different sounding points

## **Learning Plan**

---

- • Analyze and perform method book exercises that introduce and reinforce tone production elements, dynamics, and articulations
- • Demonstrate ability to perform passage with multiple approaches to tone production. Students will compare, contrast, and evaluate the musical effect of tone production
- • Kinesthetic activities to promote proper technique and parallel bowing
- • Listen and critique recordings discussing the effect of articulation, bowing types, bow placement, and tone production on stylistic expression.
- • Listen and critique recordings to analyze the way elements of tone production function in music
- • Partner pairing of students to discuss approaches to tone production in a musical excerpt
- • Perform a scale applying student's choice of a particular articulation/tone quality.
- • Perform and critique the effects of altering a bowing pattern, articulation, and bow distribution

- • Perform and critique the effects of changing tone when altering bowing direction, bow placement, bow pressure, and speed.
- • Perform exercises applying different sounding points

## **Materials**

---

The materials used in this course allow for integration of a variety of instructional, supplemental, and intervention materials that support student learners at all levels in the school and home environments. Associated web content and media sources are infused into the unit as applicable and available

- Method books and concert music repertoire
- Instrument supplies (tuners, metronome, rosin, cello straps, shoulder rests, strings, music stands)
- Technology resources (computer, recording devices)

## **Suggested Strategies for Modifications**

---

This link includes content specific accommodations and modifications for all populations:

[Performing Arts Accommodations & Modifications](#)

- • Musical parts can be modified as appropriate
- • Students will be encouraged to move ahead in levels as their skills increase
- • Students will be paired with partners for support and interaction
- • Students will be provided notes describing the elements of tone production
- • Students will receive preferential seating
- • Tempi can be slowed or accelerated as appropriate
- • Visual aids will be used