Lindenwood University

Digital Commons@Lindenwood University

Theses   Theses & Dissertations

Spring 3-2021

Beginning Band: Cognitive Development Based Instruction

Kayla Price

BEGINNING BAND: COGNITIVE DEVELOPMENT BASED INSTRUCTION

By

Kayla Price

Submitted in Partial Fulfillment of the Requirements
for the Degree of Master in Music Education
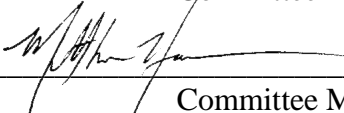at
Lindenwood University

March 2021, Kayla Price

The author hereby grants Lindenwood University permission to reproduce and to distribute publicly paper and electronic thesis copies of documents in whole or in part in any medium now known or hereafter created.

Kayla Price_____ 03/08/2021 _____
                                    Author

Dr. Ryan Curtis_____ 3-8-2021 _____
                                    Committee Chair

Dr. Katherine Herrell_____ 03/08/2021 _____
                                    Committee Member

Dr. Matthew Hoormann_____ 03/08/2021 _____
                                    Committee Member

BEGINNING BAND: COGNITIVE DEVELOPMENT BASED INSTRUCTION

A Thesis Submitted to the Faculty of the Music Department
in Partial Fulfillment of the Requirements for the
Degree of Master in Music Education
at
Lindenwood University

By

Kayla Price

Saint Charles, Missouri

March 2021

Abstract

Beginning Band: Cognitive Development Based Instruction

Kayla Price, Master of Music Education, 2021

Thesis Directed by: Dr. Ryan Curtis, Professor of Music at Lindenwood University

This project focuses on how to facilitate a more efficient beginning band experience for students based on the average state of cognitive development for their age group. The primary focus is presenting an alternative to immediately starting students in a traditional band method book when they first begin band classes. The aim of the project is to study the cognitive development of the average sixth grader to best determine what instructional approach would best suit their processing abilities before introducing the band method book. Furthermore, the study exposes the fallacies of the traditional band method book system and suggests and alternative start to beginning band to prepare students musically for a delayed entry to the method book.

Acknowledgements

I would like first off, to thank my thesis committee for their patience, guidance, and valuable insight throughout this project. Dr. Ryan Curtis, Dr. Katherine Herrell, and Dr. Matthew Hoormann, I can't thank them enough for all you've done to make this project a valuable learning experience. Also, I'd like to thank my City on a Hill church family my dear husband Larry Price for their unwavering support. After the hours of time and massive amounts of effort poured into this degree and project, their endless supports in various areas of my life gave me the capacity to commit myself to academic excellence.

Additionally, I would like to thank Ron Sikes for the inspiration of this project. I was incredibly fortunate to hear Ron discuss his beginning band approach during a National Association for Music Education meeting during my time as an Undergraduate student at Southeast Missouri State University. I didn't know it at the time, but his words would help mold my entire instructional approach as a band director and eventually inspire this project.

Lastly, I'd like to thank Dr. Joel Vanderheyden. Joel is single-handedly the greatest instructor I've ever met and had the honor to study under. Every lesson of his is crafted with such intentionality and mindfulness when considering the needs of his students. This level of attentiveness, genuine care, and student-centered instruction is something I actively try to bring into my classroom every day. It made me the kind of educator that would want craft an approach to beginning band that is solely based off of the needs the students. Thank you for investing your time and effort into my education, and the resulting impacts it had on my life.

Table of Contents

Introduction/ Background Information

It makes logical sense that, when approaching instrumental music instruction with cognitive development as a focus, information regarding education, child development, brain anatomy, and music is significant. While most pedagogical literature keeps student development and psychology in mind, there is still much to be gathered from looking specifically into the physiological elements that contribute to the educational dynamic in beginning instrumental music classrooms. So much is happening developmentally during the traditional beginning band ages of 11 to 14. As educators, it is our job to equip our students for success and provide instruction as effectively as possible. What if traditional beginning band instruction doesn't necessarily fit into the framework of the mind as well as we have assumed it does? Are we metaphorically asking a child to run before they walk? Can the brain's anatomy, processing, and function show us a better way?

It's no secret that learning a band instrument can be quite a challenging task at any age. With that in mind, evaluating the limitations of the average beginning band student changes the expectations. Basic surface level reasoning and observation suggests that there must be a developmental reason why kids aged 11-14 are not capable of learning with the same efficiency as adults. While this observation may seem obvious to most, it is seemingly less apparent that the demands of traditional beginning instrumental music instruction doesn't vastly differ from how most would teach adults.

When considering the task of learning to play an instrument, there is an immense amount of processing and other factors to consider throughout the process. An instrumentalist must be able to manipulate muscles with both fine and gross motor movements to even produce a sound on an instrument. This task alone can prove to be difficult for beginning instrumentalists of any

age. Unfortunately, that is not the only significant challenge that comes with instrumental music. Even once sound production is accomplished, the detail-oriented navigation of producing different pitches presents a new set of difficulties. The focus is no longer just on making sound but on making specific sounds and recognizing whether they were successful.

Being able to play an instrument is not where the challenges stop. Additional challenges, such as reading notation and rhythmic timing, are additional requirements for instrumentalists. An instrumentalist is forced during any rehearsal or performance to engage in visual, physical, and auditory processing to produce music at any skill or performance level. Keeping these demands in mind, how are instrumental music educators supposed to get rooms full of middle school students to accomplish such a task?

Traditional band methods, such as Essential Elements 2000: Comprehensive Band Method, break down the complexity of music and isolate individual pieces (Lautzenheiser, et al., 1999). In the beginning of this method, they show a note on the musical staff with the letter of the note name placed on the appropriate line or space. Above it, they have a fingering chart that shows the student where to put their fingers and which valves or keys to press down. They then rely on their instructor to assist them in making their first sounds and producing their first note. Once that has been done, the student moves to the next musical example, where they count basic rhythms while reading and playing that note with the label still in the note head. They typically add four more notes to the students' musical vocabulary throughout the next several examples and have them play short melodies that are often about four measures. However, by number eleven in this particular method book, the letters of the note names are removed, and the student must fully process note reading on their own. From there, the musical selections progress in difficulty and length.

Success in the instrumental classroom is crucial not only on the basis of wanting the student to enjoy themselves, but also because a band program needs retention to survive. If students are not having a successful and/or enjoyable experience, what reason do they have to continue in instrumental music education? These pressures fall on the shoulders of the instructor to create a framework that leads to the greatest group and individual success possible. Even more challenging is equipping students with the skills necessary to feel continuously successful. Successfully making a sound, playing a note, or playing an exercise in a book is only going to be elating for so long. There needs to be consistent progress and growth in order for students to feel successful in the endeavor.

The purpose of this research is to seek out the cognitive strengths and weaknesses of the average 10-14-year-old student tend to be, to most effectively tailor instruction. It makes sense to break down the often-overwhelming task of learning instrumental music to best suit the cognitive capabilities of the people learning it. When breaking down this task, there are several specific pieces of information I'm seeking to help formulate a plan. We need to find out what processes in the brain are not running at peak efficiency, due to the developmental nature of the brain during the student's age. This can be traced through the developmental timeline of specific regions of the brain.

Going further, once the developmental limitations have been established, that information needs to be used to clarify the implications they will have on instrumental music. This can be done through associating developmental skills with their musical applications. This starts to piece together a larger picture of what musical skills and concepts are most easily attainable for the average instrumental music student at that given age. Once these natural musical strengths

and weaknesses have been isolated, a plan of how to most effectively introduce and refine the components of beginning instrumental music instruction can start to form.

Pending logical and practical applications of the brain's strengths at the given stage of development, students are likely to see heightened and accelerated success through the director's beginning band method. Our goal is not to fight the brain's natural tendencies, but rather to utilize its natural strengths at that stage of development to foster success before adding additional processing requirements to the demands of the student.

My intention is to formulate a supplementary instructional strategy to the traditional beginning band method that takes into consideration the impact made by the brain's developmental anatomy on instrumental music learning. First, I will familiarize myself with brain anatomy, function, and development. This allows me to get an idea of what strengths to utilize during the introduction of instrumental music. This also establishes an understanding of what capacity various processes and skills are developed and ready for heavy processing utilization. Secondly, I will associate the processing of musical skills in the brain to start to expand our understanding of cognition regarding general ability to understanding of cognition in regards to musical ability.

Concluding the information gathering will be the concept of audiation in musical instruction. This method of instruction, in many ways, is the complete opposite of traditional method books like Essential Elements 2000 and approaches instruction from the musical perspective rather than the technical (Dalby). While both approaches seem to have merit, it seems both approaches together have greater potential to facilitate instrumental music learning with cognitive development in mind.

Literature Review

      The brain is extremely complex structurally, as well as functionally. One common way of dividing the brain into sections is by identifying the different sections, called lobes. These sections are the frontal, temporal, parietal, and occipital lobes. We must understand the cortex as the outer surface of the brain used for info processing and higher mental functions that works alongside the different lobes that each perform several functions (Zak, 2004). The type of information and mental functions will vary based on the activity being engaged.

      While understanding the different lobes is certainly of importance, there are other ways to identify parts of the brain. Much like instrumental music instruction, the brain can be studied from different perspectives and is a multi-faceted topic that requires extensive consideration. The brain can also be divided into three main parts: the forebrain, midbrain, and hindbrain. Located within the hindbrain, the cerebellum is of particular interest because it is responsible for the coordination of movement (Watson, Kirkcaldie, & Paxinos, 2010). The cerebellum also controls the range and force of movements, as well as assists with muscle tone and posture (Watson, Kirkcaldie, & Paxinos, 2010). When you consider the elements involved with playing an instrument, it is understandable that this region demands our attention. At any given moment, an instrumentalist of any age is coordinating things like note fingerings, breathing, and posture. Without these abilities, a musician simply can't produce music.

      While it is clear that these actions are necessary for musicians, it is important for educators to consider how these functions, as well as those that take place in any classroom, are being accomplished. Going even further, how do we know where these cognitive commands are coming from? During research of brain function, fMRI imaging studies are often used to trace activation in the brain when completing specific tasks. Any middle school instructor is likely to

lose count of the number of times they have to redirect the attention of their students. It is something that is likely discussed throughout the instructor's undergraduate studies, student teaching, professional development sessions, and staff meetings in schools around the world daily. One may even jokingly ask where they can find the manual for a middle school brain when faced with this challenge. However, the brain offers us answers through what is called the default network.

During an imaging study, participants were allowed to let their mind wander, undisturbed, for periods of time. The default network is the group of brain regions that engage during those undisturbed periods of time (Buckner, Andrews-Hannah, & Schacter, 2008). The results of the imaging revealed that, during the moments of undisturbed thought, the medial prefrontal cortex, hippocampus, and adjacent areas in the medial temporal lobe are participating regions in the default network (Buckner, Andrews-Hannah, & Schacter, 2008). With these areas identified, the function of the default network can be extrapolated from the interacting functions of those regions. The conclusion presented was that the default network is associated with episodic memory, self-referential processing, episodic memory function, information integration, and anticipating and/or evaluating upcoming events before their occurrence (Buckner, Andrews-Hannah, & Schacter, 2008). Ultimately, the default network might be doing more than allowing the average middle school student to divert their attention in the classroom. The practical and anatomical implications are worth an educator's evaluation because, as an educator, a lack of attention often means learning is not taking place. In order to be an effective educator, attention maintenance and student engagement are key.

Classroom logistics aside, how can we begin to understand how the human brain works? Going even further, we need to distinguish how the brain of an average middle school student

functionally differs from that of an adult. The four lobes previously discussed function as a collection of operational groups. The frontal lobe is responsible for planning, organizing, strategizing, and sustaining attention (Giedd, Molloy, & Blumenthal, 2002). Within the frontal lobe, the dorsolateral prefrontal cortex is thought to be critical for the most complex cognitive abilities (Diamond, 2000). The more complex cognitive abilities included in the prefrontal cortex include higher executive skills, such as planning, working memory, and attention (Filley, 2002). That being said, it is worth considering what we present to students, as well as how we do it. These considerations are likely best led by the development of the student's brain.

Together, the dorsolateral prefrontal cortex and the neocerebellum operate as the primary "processors" of a neural circuit that is engaged when a task is difficult, unfamiliar, requires quick response, or concentration is required (Diamond, 2000). When you consider the nature of instrumental music activity, you could say all of the previous mentioned adjectives are appropriate descriptors. During instrumental music education, students are being presented music of ever-increasing difficulty, with new and unfamiliar elements being introduced on a regular basis. Also, the activity requires constant attention, due to the reactive nature of music reading. Every note seen by the performer requires them to determine the note name and duration. In response to that conclusion comes the physical reaction in the form of the note fingering or location (based on instrument) and physical response to produce and sustain the note as requested by the notation.

In the midst of this, the dorsolateral prefrontal cortex creates a circuit of sorts that promotes cognitive functions like holding information for remembering later, resisting distraction, waiting for appropriate moments to respond, and evaluating initial behavior reactions. (Diamond, 2000). These are all components in social norms, as well as crucial skills

for students to productively function in any classroom environment. When a director gives feedback to their ensemble, it is crucial that the student retains that feedback when they start playing the passage again for successful application into their performance. This, coupled with the neocerebellum's task of motor learning, creates the circuit for effective learning and task accomplishment (Diamond, 2000).

Information holding and processing, as part of this circuit, is crucial to everyday life and of particular interest to educators when considering lesson delivery. The circuit made by the dorsolateral prefrontal cortex and neocerebellum contribute to what is called working memory. Working memory is the process that enables people to mentally hold small pieces of information so that it is readily available to use in application with complex tasks (Cockroft, 2015). Ultimately, the goal of working memory is to utilize and coordinate the various necessary processes to temporarily store and manipulate the information as needed for application (Cockroft, 2015). For example, when you introduce new vocabulary or a concept in an instrumental music classroom, it is generally applied immediately for teacher feedback. What is even more significant is the ongoing processing involved in instrumental music utilizing the information in working memory. Performing music isn't a problem that gets solved one time, and then you move on. It is forever ongoing.

Unlike the frontal lobe, the parietal, temporal, and occipital lobes continue significant development past age 5 (Giedd, Molloy, & Blumenthal, 2002). Several of these regions continue to develop throughout the beginning band age group. The parietal lobe is responsible for body awareness and does not reach peak development until 10.2 years of age in females and 11.8 years of age in males (Giedd, Molloy, & Blumenthal, 2002). As a result, students who have not been engaged in activities outside the classroom that regularly involve heightened body awareness

may struggle with replicating how an instrument is held, or the technique involved. The temporal lobe is associated with language and continues development even later, not reaching peak development until 16.7 years of age for females and 16.5 years of age for males (Giedd, Molloy, & Blumenthal, 2002). At this point, we have established an area that is likely not fully developed in most beginning band students. The temporal lobe also has a prominent role in hearing, language, memory, and emotion (Johnson, Blum, & Gledd, 2009). Lastly, the function of the occipital lobe is visual processing and object recognition. This particular lobe develops throughout childhood and adolescence (Giedd, Molloy, & Blumenthal, 2002). This requires a deep inquiry into what makes sense to approach, as well as when that approach will happen.

Auditory skills and technical ability are skills that career musicians dedicate countless hours developing. Auditory skills are the source of quality musicianship and musical understanding. Musicians spend years developing their auditory skills for abilities such as playing in tune, musical interpretation, rhythmic processing, and analyzing the finer details of music. All of these skills would be impossible without the auditory cortex. The auditory cortex is located in, and has connections to, every portion of the midbrain (Waitzman & Oliver, 2002). When dividing the brain into lobes, the auditory cortex is considered part of the temporal lobe (Peretz & Zatorre, 2003).

As a result of each part of the auditory cortex being connected to all other parts of the midbrain, there are simultaneous inputs and outputs being processed in parallel (Waitzman & Oliver, 2002). These connections are crucial when you consider the various types of sensory processing that happens alongside music performance. The production and hearing of musical pitch and melody is directly connected to the physical actions required to make or hear it, as well as the visual input that precedes production. This is clearly observable by watching a musician

physically produce a note, detect an error, and adjust physically to correct the issue. Sensory signals, such as those dealt with in the auditory cortex, ultimately terminate in the cerebral cortex. Once that route is completed, the sensory information, regardless of variety, is sent for processing at various levels, so specific actions can be generated in response (Cechetto & Topolovec, 2002). It is incredibly powerful because of the extremely large number of connections to various parts of the brain to fulfill its heavy processing requirements (Filley, 2002).

The prefrontal cortex exists within the primary motor cortex, which is responsible for executing planned movements (Cechetto & Topolovec, 2002). Planned movements are encompassed within all instrumental music learning and performance. These movements are a result of the sensory system's processing of various information inputs of environmental changes. The sensory system's responsibility of detecting environmental changes can be segmented into three parts: exteroceptive (external), interoceptive (internal), and proprioceptive (body positional) (Cechetto & Topolovec, 2002). These environmental changes could be hearing that a pitch is incorrect (external), the amount of oxygen left in a musician's lungs versus measures in a phrase (interoceptive), and choice of fingering or hand position (proprioceptive). Once processed, a musician may realize the pitch is incorrect because it is severely out of tune as a result of lack of air support or notoriously out of tune fingering. Thanks to their awareness of their lung capacity and physical state, they can then evaluate and plan what movements, such as mouth shape, fingering adjustment, and/or additional diaphragm support, will rectify the situation.

It is clear that the auditory cortex is largely responsible for managing musical input. However, the temporal lobe, as a whole, is important for distinguishing meter (Chen, Zatorre, &

Penhune, 2006). Through imaging studies, it has been found that the superior temporal gyrus, primary motor cortex, thalamus, and cerebellum were activated during the process of tapping in sync with auditory rhythm (Chen, Zatorre, & Penhune, 2006). This process is handled by the superior temporal gyrus encoding the metric rhythms, followed by the dorsal premotor cortex integrating the information with temporarily organized motor actions as a response (Chen, Zatorre, & Penhune, 2006). In other words, the auditory cortex gets assistance from other parts of the brain to better delegate the cognitive processing load. This contributes to the previously mentioned technical ability. Musicians practice the countless hours they do to build familiarity and require less processing power during performance.

The superior temporal gyrus and frontal cortex are responsible for storing these memories so they can be accessible in a task, such as responding to music (Peretz & Zatorre, 2003). If no musical memory were stored, someone wouldn't know how to react to what they hear. As previously mentioned, the premotor cortex is responsible for learning motor sequences, which we also see in play here, but it also assists with more complex rhythms (Zatorre, Chen, & Penhune, 2007). That information is sent to the cerebellum, where it will handle the processing of movement timing as a response alongside the basal ganglia and supplementary motor area. Error detection will also be actively happening in this region during the activity (Zatorre, Chen, & Penhune, 2007). Error detection will also require processing to compare what is heard to what the performer's musical memory of correct is. The more complex the task, the more parts of the brain that become involved in making it happen (Zatorre, Chen, & Penhune, 2007).

This process of storing memory to processing and response ends up being very similar to that of language acquisition and execution (Dalby). Tonal working memory functions like regular working memory and forms a loop, much like the phonological loop where language

memory is stored for mental recollection and application (Perry, 2002). The processing largely happens in the auditory cortex, but anything increasingly complex may require the hierarchy of processing to engage and retrieve assistance from the frontal cortex (Perry, 2002).

Knowing how the brain works and the direct instrumental music applications is helpful, but it is even more beneficial from the educational perspective to know when we can utilize those skills with our students. An often-referenced scholar on the subject of development of school aged children is Piaget. His theory is centered around the idea that specific problem-solving abilities are only available to children at certain ages (Genovese, 2003). The final stage that would theoretically allow someone to engage any type of processing necessary to solve a problem is called the formal operational stage. At this stage, the child or adolescent should be able to look past the content alone to be able to discern the formal structure of the task (Genovese, 2003). However, it has been argued that some adults never quite acquire the ability to consistently operate in the formal operational stage of development, meaning some students may not only get there late, but not at all (Genovese, 2003). For those who follow the average development of timeline established by Piaget, they generally enter the formal operational stage between the ages of 11-15. When they reach this stage, they will be able to understand and connect deeply with concepts, allowing them to transition from memorization to understanding so they can apply the understanding elsewhere (Ahmad, Ch, Batool, Sittar, & Malik, 2016). With Piaget's assertions in mind, middle school band directors may be starting students that do not have formal operational ability.

This presents a question; what exactly is the average student capable of between the ages of 11-4? That requires us to establish exactly when key skills are developed, as well as the parts of the brain that control them. Music is processed in a very similar way to language acquisition

(Dalby). With that considered, several parallels can be drawn. Onset of response to sound stimuli usually occurs in infancy, followed by phonetic discrimination in the perinatal stage, with attention to ambient language happening during the transition to childhood. Finally, language acquisition happens in early childhood, with increased linguistic discrimination happening in later childhood (Moore & Linthicum Jr., 2007). However, even though improved language discrimination happens in later childhood, it will continue to increase significantly throughout adolescence. For example, you would not expect speech from a 12-year-old child to be nearly as sophisticated as an adult. It is an ongoing development throughout life. This also results in an increased ability for more complex auditory processing to happen in parallel with other complex processes (Moore & Linthicum Jr., 2007). This coincides with the average timeline that the formal operational stage starts to emerge in children.

This also happens to be the age when abstract concepts are first introduced into the Core National Standards for English Language Arts in the United States (English Language Arts Standards, 2010). It is worth questioning if this is the ideal time to move students from concrete to abstract. Some may argue that the presentation of abstract concepts can't be delayed any further. If that were true, would that require greater sensitivity from educators regarding content presentation?

Many skills are not fully developed until roughly adolescence in the average child, such as working memory, which starts increasing at age 5 but will not reach its peak until age 16 in most people (Cockroft, 2015). Also developing into adolescence are fine motor control, bimanual coordination and visuomotor skills. Children, up until this point, are still developing and may struggle with most complex cognitive functions, such as accurately representing transformations, flexibly manipulating information held in the mind, and simultaneously taking

into account multiple facets of a problem (Diamond, 2000). This requires awareness of exactly how much new information can be manipulated at one time. That amount will grow with age, but certainly has its limitations. Many of the mentioned skills tie in directly with the neocerebellum, which does not reach full maturity until at least puberty (Diamond, 2000).

Additionally, it is observable, on an anatomical level, how certain parts of the brain associated with important educational skills are not developed until later in life. During ages 11-12, a process called "pruning" begins (Johnson, Blum, & Gledd, 2009). Pruning is a restructuring of the brain that eliminates scarcely used connections in favor of strengthening the regularly used ones (Johnson, Blum, & Gledd, 2009). This is the time where gray matter volumes peak, but the cognitive benefits resulting from pruning may not become evident until early adulthood (Johnson, Blum, & Gledd, 2009). The direct result of students this age enduring pruning is that they are at a greater disadvantage in some processing areas than previously realized. Not only are students generally less experienced at these processes than adults, but their brain hasn't pruned connections to strengthen those associated with those connections yet. Their brain is physically different. As a result of this, information recollection and frontal cortex usage may not be as efficient in younger students as it is in adults because the neural connections are not as developed (Beason-Held & Horwitz, 2002).

With cognition and development in mind, there are ways to use it to our advantage and utilize our understanding of how this impacts the music education classroom. The instrumental music classroom is largely based on personal experience. This means students are engaging in a learning cycle of concrete experience, reflective observation, abstract hypothesis, and active testing that repeats itself to show improvement in performance ability (Hodges, 2010). Throughout this process, the sensory cortex, back integrative cortex of the temporal lobes, frontal

lobes, and motor cortex are all engaged (Hodges, 2010). With full development not coming until later is some of these areas, it is important to consider cognitive limitations and efficient approach to instruction. This can present a "snag" in some steps of the process and require more processing power to complete the task.

The limit in the average working memory is only 7 items of information (Cowan, 2016). Working memory (sometimes referred to as short-term memory) is during the acquisition stage of overall memory. With that in mind, it is recommended that teachers utilize a lot of repetition, avoid distractions, avoid giving too many instructions at once, and help students see patterns (Hodges, 2010). An example of this would be teaching reading notation to a class. If a teacher presents them with the names of notes on the lines, names of notes on the spaces, the number of beats in a measure, what a whole note looks like, how many beats a whole note gets, what a half note looks like, how many beats a half note gets, what a quarter note looks like, and how many beats a quarter note gets, we've already exceeded the average working memory of an adult. If it overwhelms an adult brain, it will certainly overwhelm a developing adolescent brain.

Moving forward with the understanding that music acquisition and language acquisition are similar, and their manner of presentation is significant, it is logical to start crafting a plan. Auditory regions respond similarly to words and music (Peretz & Zatorre, 2003). Learning the rules of language is usually easy for children because perception precedes production (Peretz & Zatorre, 2003). For example, when we are young and learning to speak, our parents do not try to teach us the rules of grammar before we can speak a sentence. They don't communicate with infants who can't talk by only speaking one word to them and waiting for them to repeat it. They are constantly engaging infants in language as a whole with no formal instruction (West, 2016). Keeping that in mind, it makes no sense to teach students to read, name, and play a note at the

same time in isolation. It removes music from its context and holds the ability to strip away meaning.

This reinforces the idea that tonal and rhythmic patterns are more effective for teaching students because they work in a way similar to sentences. Sentences are spoken, and individual words are later given meaning so they can be used in differing contexts (Dalby). Learning aural skills first, through strategically introduced melodic material, lays the foundation for all other skills to be built (Dalby). Just like we learn the meaning and significance of words in the midst of sentences, notes will hold greater significance when in a melodic line. Additionally, when notes are presented this way, the notes are learned as well as the context of how they are used, just like words. The biggest part of the foundation is audiation, which means someone can hear and comprehend music when it is not physically present (Gordon, 1989).

Audiation is the music equivalent to thinking in language (Gordon, 1989). One must be able to process the words internally before expressing them with accuracy externally. Audiation can be broken into eight types: listening, reading, writing, recalling and performing, recalling and writing, creating and improvising unfamiliar music, creating and improvising unfamiliar music while reading, and creating and improvising unfamiliar music while writing (Dalby). Looking at the big picture, audiation starts with listening and the ability to perceive that music is happening, which eventually leads to the ability to read and write with understanding. With this level of familiarity, a person can then perform with competency and understanding. Due to the extensive vocabulary and ability to utilize it internally, a musician can then begin going through the more advanced types of audiation because there is no need to familiarize oneself with the "language". Then, much like language, audiation will go through stages where there is momentary retention, initiation of tonal and rhythmic patterns, establishing subjective or

objective tonality and meter, consciously retaining tonal and rhythmic patterns, consciously recalling those patterns, and conscious prediction of patterns (Dalby).

This hierarchy of audiation can function in the manner it does because, as processing efficiency becomes better through familiarity with a task, cognitive resources are freed up for other more complex or unfamiliar mental operations (Cockroft, 2015). As things are introduced, a tiered approach is beneficial, starting with enactive (action-based), iconic (image-based), then symbolic (language-based) (West, 2016). A first step is to establish audiation and action-based music learning is to start by thinking of the instrument as an internal instrument and external instrument (West, 2016). Basically, the idea of the internal instrument is the ability to produce and hear music internally when music is not present. It eventually grants the musician the ability to hear a melody that they see notated on a page. However, hearing internally requires familiarity with the sounds.

This leads into a practice referred to by Dalby as "rote before note," which introduces listening, sound production, and melody before notation to make playing an instrument an extension of audiation (p.25). The idea is that producing accurate melody on an external instrument is less taxing when the musician has an inner melody of which to guide them in their sound production. Musicians can't fix a problem they don't know they have, and they won't know that problem is a wrong note unless they can hear it themselves or something tells them. Rote before note also puts notes in the context of a melodic line or song. When compared to language acquisition, this proves to be efficient when compared to listening to a lecture. You will not remember every word of the lecture if you focus on them individually. However, you will retain the essential patterns when focusing on the larger whole (Gordon, 1989).

This rote before note approach also helps something Claughs calls "button pushing syndrome," where students associate a note on the page, letter name, or fingering with a guaranteed pitch (Claughs, 2018, p. 40). This means the student largely doesn't even entertain the thought of a pitch being incorrect if the fingering is a guarantee. This also doesn't leave room for them to consider human error. A student may be producing the correct pitch based on their fingering, but not have the internal instrument present to compare the pitch to in order to realize they are not using the correct fingering. That incorrect fingering then results in an incorrect note they didn't know they were playing. This makes it difficult for students to separate the pitch that exists even when not physically present. This is the absence of audiation. When notation and pitch are introduced simultaneously, as in most beginning band method books, the emphasis becomes musical executive skills (Claughs, 2018). For example, Essential Elements 2000 comprehensive band method does not specifically mention listening. Their first exercise immediately talks about fingerings and note duration of an isolated pitch (Lautzenheiser, et al., 1999). When you consider the heavy dependence on the instrument, it seems that the student is making the instrument responsible for musical production, rather than themselves.

Methodology

  This project is a result of research gathered from existing studies and literature about brain anatomy, brain and cognitive development, and instrumental music instruction. These topics that are being used to create this supplemental instructional method are comprised primarily of qualitative information, with some quantitative data recovered from scholarly articles and medical case studies.

  Using databases, information was sought about the different regions of the brain functionally accomplish and the process through which that happens. With the brain being as complex as it is, it became apparent early on that it was difficult in several cases to associate a brain region with a single function. This required me to reverse engineer the approach to reading these secondary sources to associate a part of the brain with the function, rather than a function with a single part of the brain. As the data pool grew, a framework emerged that allowed for the construction of an informational model that was like a roadmap to cognitive functions of the human brain.

  However, identifying functions alone was not enough to really construct an idea of how this would apply to musical instruction. Understanding the processes and their locations was helpful, but cognitive process interactions were also found to be necessary. Major process categories were selected, including motor skills, auditory processing, and learning ability. After collecting literature explaining the functions of these various parts of the brain, the regions were sorted into those categories. This process related the information to the categories they were meant to eventually represent so correlations could be identified. Also, this created a clear association to what regions of the brain were associated with what and set the stage for connecting their interactions in the context of music performance.

With the foundational anatomy and function established, an understanding of when these skills that were determined to be significant would develop proved to be beneficial. This resulted in a lengthy search through scholarly articles from various databases, psychology journals, and education journals for this specific information. Skill acquisition and cognitive ability proved to be common topics in the psychology and education realms. Much of the literature gave incredible insight to the implications of the development, or lack of development, of particular skills in the classroom but did not necessarily draw any parallels with the state of the student's brain. Eventually, some isolated literature on developmental timelines that included regions of the brain emerged from the information pool. These individually named regions and their developmental estimations were then easily integrated into the existing information.

Through collection of developmental information, it was now possible to start taking away the unnecessary factors. It was discovered that there were several regions of the brain that were developed in early childhood before the age range of the average beginning band students. These were the regions that were of less concern. The information was certainly relevant for establishing an order of presentation for content that played to strengths. However, the information was intended to determine what exactly is inefficient for this particular age group in existing beginning band instruction. This means it was necessary to identify the inefficiency through aligning the current methods with underdeveloped skills.

After removing the less pressing information to start the formation of the argument, what remained were anatomical details of cognitive processing that were previously being sought. One result of the research at this point was a list of brain regions that were associated with various skills and were not developed to full maturity between ages 11 and 14. This brought the neurological research to a conclusion and allowed for a start on the research on the musical side.

The ultimate goal was to eventually start connecting the musical and anatomical to eventually arrange in a sequence later.

The music education side of the literature was plentiful and, more often than not, offered various ways to improve specific aspects of musicianship across different age groups. The research topic required a specific look into typical beginning band instruction practices that seemed common within the music education community. This required an in depth look at a band method. The decided method book to utilize throughout the project was Essential Elements 2000. Advancing through my public education, undergraduate studies, and first several years of teaching, I discovered that it was quite similar to several other beginning band methods. This made it a logical selection from which the "traditional" band instruction method could be studied.

Finally, to adequately tie these various aspects together and create a new approach that didn't completely abandon the method, establishing what musical concepts it was missing became the next task. If band instruction were rearranged to accommodate for young minds, did we need to fill in any blanks? Through the research of scholarly articles and journals filled with claims of advanced musicianship, there was an underlying constant; they were missing a fundamental piece. Later discovered was Edwin Gordon's concept of audiation as it applies to music instruction. This felt like the missing piece to traditional band method, and the skills associated with it seemed like they may fit well into the established cognitive development timeline. With information gathered on the anatomy and function of the brain, the scope of cognitive development, and two vastly different means of musical instruction, the pieces needed to craft a unique approach seemed to come together. The larger picture would not only combine

the best of master music pedagogues, but also sequence it in a way that yields to the beginning band student's cognitive framework.

Discussion

Fundamentally, teaching instrumental music is foundationally the same as any other subject. Effective instruction in any subject and any topic is going to look similar in some way. Methods of delivery and learning activities may differ, but there still remains a common thread. Effective instruction is built around consideration of the learner and planned with a specific goal in mind. With that being said, the overall goal of beginning band instruction remains obvious; teach students to play instruments. However, that is a large and ambiguous goal. At what point does one consider the goal met? Additionally, how does an instructor prevent that task from becoming overwhelming?

Largely, effective teaching boils down to presenting level appropriate content in manageable pieces so that the learner may most effectively process and apply the information (Gordon, 1989). Any entity on the outside looking in would likely label an instructor ineffective if they noticed their lessons lacking those qualities. If we, as educators, are going to yield to these suggested teaching practices, clear processing limitations have to be established. The processing limits are so significant because that informs the educator of how far and in what ways content needs to be broken down, class pacing, and methods of content delivery. These processing limitations can be predicted largely through understanding of brain physiology and development (Diamond, 2000).

Generally speaking, the existing band methods do an excellent job of doing what they were written to do. These methods are often meant to get young instrumentalists engaged and

playing as quickly as possible. For example, when you open a student copy of Essential Elements 2000 band method, you immediately find a page with a brief overview of the instrument, how to put it together, and how to hold it. Immediately after this page (which may or may not ever be seen by an eager sixth grade band student), students are tasked with looking at their first note on a page and producing it on an instrument. At this point, the well-crafted progression of the beginning band method book presents a clear structure that allows instructors and students alike to gauge their progress. Every musical example in a beginning band method, such as Essential elements 2000, is meant to progressively present or reinforce new skills with numerically ordered examples.

The first example has beginning band students "read" and play a concert F when cued by their band director. The note is written on the staff to reinforce literacy, but the letter is placed inside the note as a reminder. Next to the example is a fingering diagram telling the student how to manipulate the keys, valves, or slide to produce the desired pitch. Theoretically, all of the necessary information is present for the student to produce that note on their instrument. After what is likely a short amount of time, the student produces the pitch and progresses on to example two. Here, the note name is still written inside the note head, but now, the students are presented with quarter notes and asked to count and play. At this point, the supplementary text next to the example encourages the students to tap their foot as they count and play.

Examples three, five, seven, and nine are identical to example one, with the exception of the pitch the student is asked to play. The point of these examples is to take the time for the students to recognize the note on the staff and familiarize themselves with the fingering on their instrument. Following each single note example is a short implementation of the new note the student has learned. This particular band method (among many others) stops after five notes, to

allow students to acquire familiarity with the notes as well as the other various concepts that were introduced such as note durations and counting.

Examples number eleven and twelve are where classes start to resemble rehearsals. Eleven and twelve are completely identical musical examples. They only differ in how they are written. In example twelve, the letters are removed from the note heads, requiring the students to read note names unassisted while playing. This is the threshold where the "training wheels come off," so to speak, and students are expected to start functioning as semi-independent musicians. At this point, there is an inevitable change of pace from the previous eleven examples because now the processing demand has increased, due to a larger quantity of required prerequisite knowledge.

The progression that the method book walks young beginners through is certainly logical. However, it is arguable that it is an unfavorable educational approach when considering the needs of the average beginning band student. There are cognitive limitations to any person, regardless of intellectual ability or age, and it is worth evaluating and considering whether this method of instruction is really as logical as it seems on the surface. It could easily be debated, based on educator or student perspective, whether or not the pacing, rigor, or sequence aligns with quality educational practices. However, that is a largely qualitative assessment that gathers its support from observation and interpretation and can vary based on demographics and class dynamics.

Cognitive Limitations Associated with Age

Operating under the premise that beginning band is offered to students in fifth or sixth grade, the students in the class will generally be between the ages of ten and twelve. This is an interesting age for students because this is often the age where neural pruning takes place.

During neural pruning, unused pathways are eliminated, while frequently used ones are strengthened (Johnson, Blum, & Gledd, 2009). The direct result of a student not having gone through neural pruning yet is that they will not be able execute some processes as well yet because those pathways haven't been strengthened. This is often why students will find some skills easier as they enter late middle school or early high school without devoting any extra effort to that skill. If the demand is consistently present to use those pathways, the brain will reinforce them during this process. The resulting imperative is the understanding that information absorption and eventual application may take longer, due to the nature of the average ten-to-twelve-year old's physiology.

In addition to the absence of neural pruning, there are parts of the brain that have not fully developed in some beginning band students. The parietal lobe doesn't reach peak development until an average age of 10.2 years in females and 11.8 years in males. Since the parietal lobe is responsible for body awareness, sensitivity to things like posture, hand placement, finger coordination, and breath control can be challenging to some students (Giedd, Molloy, & Blumenthal, 2002). As the students age and their brain develops, their ability to monitor and control processes such as these will increase.

It is comparable to attending a youth sports tournament and comparing the different age ranges. With younger athletes, you'll often see the youngest students needing adults to physically place them in the right location or help them locate where to place their hands on various equipment. However, as you watch children just a few years older play, you'll see them start to make micro-adjustments to their technique and form. This is a result of not just good coaching, but also the cognitive ability to take inventory of one's body and movement as a result of the developing parietal lobe.

The educational implication of this is the understanding that students will often not notice when they stop following the physical instructions involved with playing an instrument correctly, such as where their fingers should be, their posture, and overall technique. This is likely something that educators will have to consistently draw the students' attention to, to help reinforce the idea that they should actively contemplate these physical demands and seek to develop that awareness. With this in mind, it could be declared unreasonable to expect a beginning band student to recall fingerings with only one musical example of reinforcement before continued application as in the beginning of traditional band methods.

Also in need of our attention is the consideration of the development and function of the temporal lobe. The temporal lobe contributes significantly to language, hearing, memory, and emotion, not reaching full development until an average age of 16.7 years for females and 16.5 years for males (Giedd, Molloy, & Blumenthal, 2002). It is clear that language, hearing, and memory are going to be significant components to learning instrumental music. While this could be discouraging information to the instrumental music educator, it is important to remember that these skills aren't absent. These skills are simply in development, and educators must keep this in mind when setting expectations and planning instruction. This means that students may not hear differences in pitch, recall note names, recall fingerings, or fluently engage musical vocabulary well at first. However, these skills can be developed, and the brain's ability to manage these tasks is consistently increasing during this time.

The final lobe of the brain that is still developing is the occipital lobe, which controls visual processing and develops throughout childhood and adolescence (Giedd, Molloy, & Blumenthal, 2002). This is significant on several levels when considering instrumental music education. Naturally, what comes to mind is reading musical notation. A common struggle

among young musicians is the ability to process note names on the staff quickly enough to produce the pitch on their instrument in real time. The delay in music reading speed is a common issue in beginning band and adds weight to the case for putting the note name inside the note head of the notes in the first eleven examples, like Essential Elements 2000 does. However, if the students experience significant delay and struggle so immensely when those notes are removed, were those note names actually beneficial to begin with, or were they a crutch?

When discussed individually, a delay in one of these areas may not seem very significant (and arguably isn't). However, the previously mentioned processes impacted by the associated parts of the brain are not processed by one part of the brain, and they are certainly not one step processes. These parts of the brain start working in conjunction with one another to receive, process, and output information as needed. In the case of music, the process chain will generally follow the pattern of receiving the visual input of musical notation, processing that information through the auditory cortex, cerebral cortex, and primary motor cortex to produce a physical response that produces musical sound (Moore & Linthicum Jr., 2007). However, once sound is produced, that is another input that is processed through each of the same regions again, to confirm pitch accuracy and respond accordingly. When regions of the brain are used in conjunction like this, any lack of development compounds with each region.

When taking a look at the large picture of what educators need to be mindful of when considering cognitive limitations based on age group, it becomes apparent that the processing load is heavy, and development is still going on. The human brain works a lot like a computer processor, in the sense that multiple large applications running all at once and maxing out the CPU does not go well. The computer will struggle, all of the tasks will run poorly, and the

desired processes will be delayed, compared to if you had run each program one at a time subsequently.

Even further, the human brain operates in a similar way to RAM (Random Access Memory) in a computing device. When running software applications, devices store information that may need to be accessed at a moment's notice in RAM storage. If a user runs out of RAM on their device while running an application, it will lock up and/or crash because the necessary information was not readily available. Simply speaking, the process that the user was seeking to carry out fails as a result of not having the information to be executed. This information stays in RAM until there is no longer a need for it and does not take permanent residence on the computer's hard drive storage. Once the application is closed, the information is no longer held and will be replaced once the application is opened again. The human brain's equivalent to RAM is called working memory.

Working memory functions as our short-term memory. This is where new information is held as we process, reinforce, and integrate it into our long-term memory (Cockroft, 2015). As students are learning in any classroom setting, the goal is to introduce new information that they will remember later and be able to apply it in various situations. Working memory becomes an incredibly important consideration because it has limitations, much like the RAM storage amount on a computer. The average adult working memory on average can hold a maximum of seven pieces of information (Cowan, 2016). With that in mind, beginning band aged students have the potential to not be able to hold even that many. That means that when instrumental music instructors are introducing the incredibly foreign concept of band instruments, they can run out of "storage slots" relatively quickly.

Take the first exercise in Essential Elements 2000 as an example. Considering the information, the student is having to apply to play their very first note from the method book, they may very well max out their working memory. Just like the computer whose application runs out of RAM, the student who lost a piece of information in their working memory to make room for a new one will not be able to sustain the process at hand. The inventory of fresh information the student must utilize in this scenario includes how to hold their instrument, how to sit with correct posture, how to produce sound, what note name they are playing, what valves or keys they are supposed to press down, what the note is supposed to sound like, where the note is written on the staff, and how to breathe with correct breath support. Within exercise one in the traditional method book, educators have exceeded the limits of the average adult working memory.

With that being said, it is still evident that the way the average beginning band method book progresses is incredibly logical. It facilitates building technique, introducing concepts, integrating new notes, is mindful of instrument ranges, and overall, just has so many merits. Mass quantities of music programs use similar method books because they have produced great musicians for years. My assertion is that just because we have seen great musicians come from programs using these band methods doesn't mean that it wasn't inefficient and couldn't be more effective and enjoyable for the students involved. The underlying issue is the lack of fundamental skills committed to long-term memory that are developed enough for instrumental music application.

Simplifying the Instrumental Performance Process

Being mindful of what a heavy cognitive process instrumental music is for young learners, how can it be broken down into more manageable pieces? It is a logical educational

practice to build on top of foundational understanding, rather than trying to process everything at once. At this point, it is wise to delay any involvement in the method book until students demonstrate basic instrument readiness. Method books are developing technique on the second page when there isn't really an existing technique to begin with. If the goal is to participate in instrumental readiness that allows the student to engage in musical performance, it is necessary to extrapolate the necessary skills demanded of the performer. These skills can be easily encompassed within four categories: literacy, mechanics, instrumental basics, and audiation.

There is a lot of processing that happens behind something as simple as reading music. Visual input is processed by the occipital lobe and that information is passed along to the cerebellum for further processing and to direct the signal to the appropriate part of the brain that the body requires a response from (Giedd, Molloy, & Blumenthal, 2002). In the case of instrumental music, reading notation results in a physical response in the form of changing hand position or fingering to match the appropriate note name and breath control to produce the pitch or say the name of the pitch. Note reading speed at this point in music education is dependent on processing ability, but more importantly, it depends on whether or not that information is readily available for use in the long-term memory.

Refining music reading ability is always a topic of particular interest to band directors because it is often one of the most challenging aspects of beginning band for their students. Learning music is often similar in progression and cognitive processing. When a child learns to read, it is only after they've learned how to listen to the words around them and produce those words themselves. Only once they have learned to speak can they truly start to associate words and letters on a page with the sounds they know how to make. If they hadn't learned to speak first, those words and letters would be meaningless representations of an abstract object of which

they are very vaguely familiar with. This can be compared to someone attempting to read a difficult word they have never seen before. If you had never heard the word, how do you know you are pronouncing it correctly? By extension, if students are not familiar with that a note should sound like, how can they be aware of whether they are playing the correct note? Learning to produce and read music is very similar to language acquisition and execution in this way (Dalby).

The problem with associating notes on a page with a fingering without previous attention or training with pitch recognition is that a piece of the puzzle is left out of the equation. The mechanical requirements become the top priority, without regard to whether or not the ultimate goal of pitch production has been achieved with accuracy. When pitch sensitivity has not been a priority and integrated into that student's musical "vocabulary," there is nothing to associate the note on the page with. Part of language development, and similarly musical language (pitch) development, is the storing of information for retrieval and integration later (Perry, 2002). In the case where that tonal information is not stored in the long-term memory, the note becomes a meaningless arbitrary symbol that gets associated with a name and fingering, but pitch accuracy is not a priority.

This musical vocabulary is built through audiation. Audiation is the ability to use what Gordon calls the internal instrument and the external instrument (Gordon, 1989). Much like we think of words in our heads before we speak, ideally, we should hear pitches in our head before attempting to play or sing them. If you don't have a word or phrase in mind before attempting to speak, any jumbled mess of sound can come out. The same stands true for instrumentalists with playing notes. The correct fingers might be pressed down as a response to reading a note, but a lack of internal audiation can result in different pitches besides the desired one coming out.

Additionally, because there wasn't a pitch goal in mind before playing the note, there is no baseline from which to gauge whether or not the correct pitch was produced. To develop this musical vocabulary and practice audiation, students must consistently sing and further develop their aural skills (Dalby). This is something not currently integrated into the traditional band method. Again, paralleling to speech acquisition, the words that children will eventually learn to read on the page need to have an associated meaning.

The mechanics behind the operation of a musical instrument take time to develop familiarity and the specific fine-motor coordination required for instrument fingerings. Not only can fingering charts become visually overwhelming, but executing the detail listed in the diagram takes time to acclimate to and integrate seamlessly. Like mentioned before, working memory does not allow for easy application and recollection because it has not been committed to long-term memory yet. This means the presentation of note names and fingerings in the traditional method book does not allow students the time and processing margin they need to apply that information, since it is being done in real time.

Lastly, students need a fundamental understanding about the operation and maintenance of their instrument before attempting to use it. Someone who is unfamiliar with sound production and technique for their instrument is not going to be able to produce sound easily. This creates a greater challenge for students trying to read music because now, their focus is on the immediate issue of sound production. Also, no progress can be made in other areas during rehearsal time if they are not able to make sound at all.

Creating "Method Book Ready" Students

My suggestion is to create a standard of "method book ready" for students to meet before presenting the beginning band method. This is a list of skills that need developed and

information that needs to be committed to long term memory before students can truly encounter the book and be successful. If instrumental educators take the time to invest in these goals, students will have a greater and more stable foundation to build on as they perform music in their method book. Ideally, they would not be fighting instrumental basics and spend the time in the method book further developing those already established skills.

My recommendation for method book readiness is that a student would be able to assemble their instrument, produce a characteristic sound, be able to name the note names on the lines and spaces on the staff, have the fingerings for their first five pitches committed to memory, and be able to play their first five pitches, ascending and descending, with articulation. If this is done, there is virtually no time spent figuring out how to play the instrument, and time can be invested to honing in their ability to play the instrument. This also is generally more enjoyable and encouraging for the student because they are able to produce melodic ideas faster and with less struggle.

The primary focus of method book readiness is to have the pitches concert Bb, C, D, Eb, F in their audiation vocabulary, written vocabulary, and mechanical instrument vocabulary. My recommendation is to take three weeks at the beginning of the school year, before instruments are introduced, to prepare students adequately to avoid frustration and foster efficient success. After week three, I recommend taking a minimum of one week to build practical instrumental skills before proceeding with method book instruction. The recommended timeline of instruction with a skills timeline can be found in Appendix A.

Every beginning band class should start with singing to start strengthening their audiation abilities and prepare them to produce those pitches on external instruments. The purpose of the exercise is to teach students to focus on pitch accuracy and the ability to hear music when music

isn't present. Echo singing is a great exercise to do this because they are introduced to a reference pitch, but to echo, the sound is absent, and they must rely on their own ability to produce it. This is an opportunity for students to create musical memory and develop their attention to detail. The progression starts using just sol and mi, with or without solfege and adding a new pitch at the start of each week to eventually cover all five of the students' first five notes.

It is also incredibly important to establish a literal vocabulary of music terminology as it applies to instrument mechanics. Where method books often lack is allowing students the time to familiarize themselves with the required fingerings before asking them to put the fingerings into context. Students will need a vocabulary and context through which to understand how to read and execute fingering charts. As the idea of notes and fingerings is presented, it is crucial to establish a language which students will understand when learning fingerings. This not only creates ease of learning for the students, but effective communication for their instructor. In addition to learning more efficiently, students are able to receive feedback from instructors more efficiently in the future as well.

I suggest establishing a fingering system and language with the students that is always spoken the same way, to create consistent language expectations. The students are provided with a fingering layout handout (found in Appendix C), specific to their instrument to relay what each finger is called. When verbally communicating a fingering to the class, the instructor should only name the fingers that are pressing down valves or keys, and always say them in order with left hand fingers coming first. When this becomes the norm, communication regarding fingerings is fast, efficient, and easy for all involved. This fingering system should be reviewed each day, with

an assessment like the one found in Appendix D, covering the vocabulary itself at the end of the week it is introduced.

Another necessary vocabulary component is preparing students to interpret symbolic representations of pitches. The goal is to familiarize the students with isolated skills, so they may be brought together later through retrieval from the long-term memory, rather than operating completely out of working memory. With reading music being such a common hurdle for students, it should be broken down as its' own component starting with concepts as small as recognizing the differences between notes on lines and notes on spaces such as what is on the worksheet in Appendix E. This allows for the line and space differentiation to be committed to long-term memory before proceeding to note reading later.

With fingering processing potential now within the capabilities of the student, specific note fingerings can be introduced. In the method book, fingerings aren't introduced until the students need to use them, and the fingering charts included in method books have the tendency to be incredibly overwhelming visually for young students. The notes they are looking for often get confused with different octaves, and they can easily mix up sharp and flat notes with natural ones just from basic misunderstanding. It makes sense on the visual processing for the first fingering chart that is presented to be incredibly minimalist and clear for students to start committing the notes to memory like those in Appendix F.

When students don't have to seek out the fingerings they need from an entire page, the visual processing demand decreases and allows the student to focus that processing power to memorization and motor application. immediately followed by a rote memorization and drill of the first five notes on their presented fingering chart. Fingerings are something that require commitment to memory for fast and easy retrieval. I recommend an assessment of fingering

memorization to track student progress and ensure the class is ready to move to higher processing levels with a quiz like the one found in Appendix G. The weeks of instrument free instruction provide a minimally distracting environment to commit to solidifying this knowledge and establishing the mechanics and fine motor coordination necessary to execute note changes.

Logistically, students also need to know about the instruments they are about to receive. To avoid any unwanted unintentional damage, it is wise to spend time covering instrument care, maintenance, and assembly. This also allows time to really focus on the fundamental methods of sound production and instrument troubleshooting. The theoretical knowledge accumulated during this time sets the stage for fast paced learning once instruments are in hand. Students don't have to wait to be shown they know certain basic things; they can simply get the instruments out and get ready to start making sound.

Lastly, students need practice and refine reading music, so it becomes as small of a hinderance as possible. For the sake of absolute clarity and establishing a solid foundation, students are taken back to the most basic details of music reading in earlier weeks, working their way up to actual note reading. Even though musical notation is covered in elementary general music, this is a great opportunity to close any existing achievement gaps and/or clear up any misunderstandings or content shortcomings. Understanding checks are built in, to address any lapses and understanding early before rote drill and practice begins. Once understanding is established, note literacy comes down to drill and repetition.

The last segment of music literacy for this age group is then rhythmic notation. Students should have this knowledge from elementary general music but benefit from a formal review and integrating it into practice. Students can minimize the processing load by clapping and counting rhythms, instead of trying to produce them on an instrument. When trying to apply all of this

recent information at once, there is too much unfamiliar information being applied at once for the student to be successful in each of them. Like the computer processing scenario presented earlier, at least one of the processes is bound to fail.

After three weeks of instrument readiness preparation, the students can be prepared to enter the method book. This is the time where students slowly apply the now familiar concepts of instrument skills, literacy, mechanics, and audiation to begin instrumental performance. The fourth week focuses on sound production and the first five pitches presented on their fingering chart. Day one of the fourth week is dedicated to quality mouthpiece sounds. Sound production is going to be a foreign concept to these students whose muscles have never had to operate in this fashion. This day allows for the processing focus to remain solely on sound production, to create good habits and avoid distraction from other intense cognitive processes.

Everything comes together for the remaining days of the fourth week by starting with concert Bb and F on the first full instrument day. At this point, students have already associated note names with fingerings and a note on the staff. This is where they get to associate it with an audible pitch. The notes Bb and F are selected specifically because they are the furthest apart. This gets students to engage the audiation practice they've been utilizing, to hear the difference between the two and give consideration to what they should sound like. From here, the other notes are filled in throughout the week, similar to how solfege was filled in on week one. Once students can play the determined five notes ascending and descending with articulation, they are theoretically prepared to encounter the method book.

Conclusion

With the evaluation of a popular method book, it is clear that there are certainly merits contained within the method of developing technical skill. However, as a director in the

classroom, it can become clear at various points that students struggle to focus on more than one musical aspect at a time. When the class gets stuck on one example in the book for several days, they may find themselves fixing a rhythmic issue for an entire class and a harmonic issue for the next. When new information is introduced across several mediums, it can overwhelm the mind.

Young instrumental music students need information presented in pieces, with time allowed for them to process and work it into their long-term memory, rather than trying to integrate it into complicated processes as it sits in their working memory. It is effective for directors to segment the various skills necessary to perform instrumental music when presenting them to their beginning band classes as noted in the lesson plans in Appendix H. That is why we need to preface the beginning band method with the skills demanded by our beginning band method books. That allows the method books to build technique and introduce skills as they were intended.

The study of the young developing brain of the average beginning band student shows this to be necessary. Largely, we as directors are missing a huge and crucial step by throwing students straight into the beginning band method book. Students need time to isolate, process, and retain the information associated with skills, such as reading notation, recognizing pitch, producing sound, and producing fingerings before bringing the whole picture together in instrumental music performance. This staggered approach suits their brains well, and as a result, suits their learning abilities well.

References

Ahmad, S., Ch, A. H., Batool, A., Sittar, K., & Malik, M. (2016). Play and cognitive development: Formal operational perspective of Piaget's theory. Journal of Education and Practice, 7(28), 72-79.

Beason-Held, L. L., & Horwitz, B. (2002). Aging brain. In V. S. Ramachandran, Encyclopedia of the human brain (pp. 43-57). Academic Press.

Buckner, R. L., Andrews-Hannah, J. R., & Schacter, D. L. (2008). The brain's default network: Anatomy, function, and relevance to disease. Annals of the New York Academy of Sciences, 1-38.

Cechetto, D. F., & Topolovec, J. C. (2002). Cerebral cortex. In V. S. Ramachandran, Encyclopedia of the human brain (pp. 663-679). Academic Press .

Chen, J. L., Zatorre, R. J., & Penhune, V. B. (2006). Interactions between auditory and dorsal premotor cortex during synchronization to musical rhythms. NeuroImage, 1771-1781.

Claughs, M. (2018, June). Beginning band without a stand: Fostering creative musicianship in early instrumental programs. Music Educators Journal, 104(4), 39-47.

Cockroft, K. (2015). The role of working memory in childhood education: Five questions and answers. South African Journal of Childhood Education, 5(1), 1-18.

Cowan, N. (2016). Working memory maturiation: Can we get at the essence of cognitive growth? Perspectives on Psychological Science, 11(2), 239-264.

Dalby, B. (n.d.). About Music Learning Theory. Retrieved from The Gordon Institute for Music Learning: https://giml.org/docs/AboutMLT.pdf

Diamond, A. (2000, January/February). Close interrelation of motor development and cognitive development and of the cerebellum and prefrontal cortex. Child Development, 71(1), 44-56.

English Language Arts Standards. (2010, June 2). Retrieved from corestandards.org: http://www.corestandards.org/wp-content/uploads/ELA_Standards1.pdf

Filley, C. M. (2002). Neuroanatomy. In V. S. Ramachandran, Encyclopedia of the human brain (pp. 403-422). Academic Press.

Genovese, J. E. (2003). Piaget, pedagogy, and evolutionary psychology. Evolutionary Psychology(1), 127-137.

Giedd, J. N., Molloy, E. A., & Blumenthal, J. (2002). Adolescent brain maturation. In V. S. Ramachandran, Encyclopedia of the human brain (pp. 13-20). Academic Press.

Gordon, E. E. (1989). Audiation, music learning theory, music aptitude, and creativity. Suncoast Music Education Forum on Creativity, 75-81.

Hodges, D. A. (2010). Can neuroscience help us do a better job of teaching music? General Music Today, 23(2), 3-12.

Johnson, S. B., Blum, R. W., & Gledd, J. N. (2009, September). Adolescent maturity and the brain: The promise and pitfalls of neuroscience research in adolescent health policy. Journal of Adolescent Health, 45(3), 216-221.

Lautzenheiser, T., Higgins, J., Menghini, C., Lavender, P., Rhodes, T. C., & Bierschenk, D. (1999). Essential elements 2000: Comprehensive band method. Milwaukee: Hal Leonard Corporation.

Moore, J. K., & Linthicum Jr., F. H. (2007). The human auditory system: A timeline of development. International Journal of Audiology, 46(9), 460-478.

Peretz, I., & Zatorre, R. J. (2003). The cognitive neuroscience of music. Oxford: Oxford University Press.

Perry, D. W. (2002). Music and the brain. In V. S. Ramachandran, The encyclopedia of the human brain (pp. 243-271). Academic Press.

Waitzman, D. M., & Oliver, D. L. (2002). Midbrain. In V. S. Ramachandran, The encyclopedia of the human brain (pp. 43-68). Academic Press.

Watson, C., Kirkcaldie, M., & Paxinos, G. (2010). Chapter 3: A map of the brain. In The brain: An introduction to functional neuroanatomy (pp. 26-42). London: Elsevier Inc.

West, C. (2016, June). Sound foundations: Organic approaches to learning notation in beginning band. Music Educators Journal, 56-61.

Zak, P. J. (2004, November). Neuroeconomics. Philosophical Transactions: Biological Sciences, 359(1451), 1737-1748.

Zatorre, R. J., Chen, J. L., & Penhune, V. B. (2007, July). When the brain plays music: auditory-motor interactions in music perception and production. Nature Reviews Neuroscience, 8, 547-558.

Appendix A

Method Book Curriculum Preface

Starting beginning band students can be an exciting time for the instructor and student alike. However, the task of playing an instrument can quickly become daunting and overwhelming. Traditional band method books like Essential Elements, Standards of Excellence, and countless others do an excellent job of breaking down fundamental skills and techniques for the young learner. However, even with a well thought out and built band method, students may still find themselves overwhelmed and somewhat unprepared for what is being asked of them. This curriculum is a preface to the traditional band method that prepares them for the technique and skill building that will happen within their method book. Implemented successfully, students are more likely to progress further, more efficiently, and with greater quality than if they had started in the method book from day one.

There are 4 fundamental skills that facilitate instrumental success:
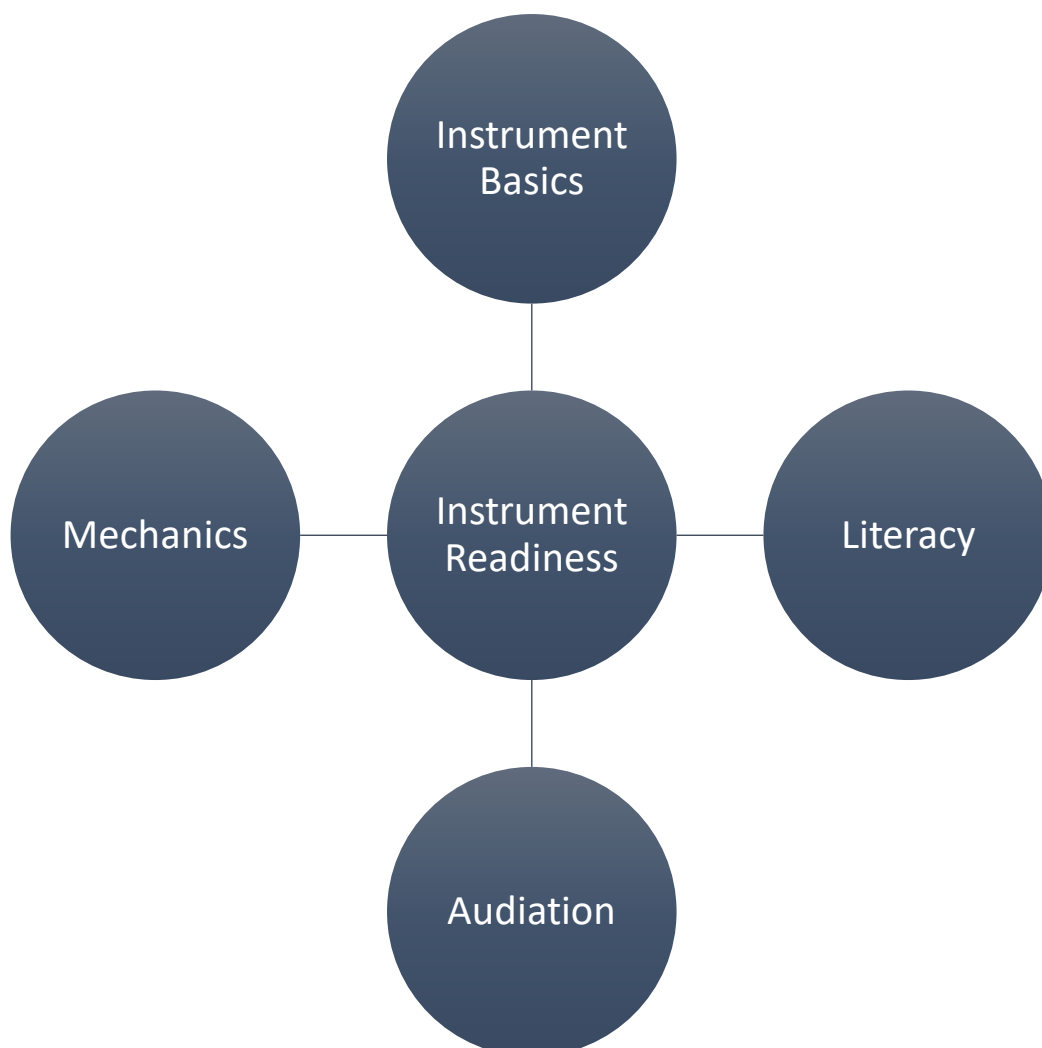
Fundamental Skills Breakdown

The goal of a curriculum that prefaces the beginning band method book is to prepare students to receive an instrument and be prepared to immediately be able to begin working through the method book. The fundamental skills will encompass the necessary knowledge to do so.

Audiation:

Students will be able to differentiate and match pitch. Skills such as humming, and singing are frequently implemented to demonstrate understanding and the functioning of the "internal instrument". Students will also develop concepts of pulse and steady beat.

Mechanics:

Students will be able to interpret fingering diagrams and associate fingers with the appropriate location on the instrument. A basic vocabulary is established so that there is a clear language exchange between instructor and student when discussing fine motor details in music.

Literacy:

Students will be able to read standard notation in the appropriate clef for their selected instrument. For beginning band students, they do not yet need to know any ledger lines. They will also become familiar with whole, half, and quarter notes and rests.

Instrument Basics:

Students will become familiar with instrument anatomy, assembly, care, and maintenance. They will be able to explain how their instrument works and execute those functions with correct technique and posture.

30 Minute Daily Model: 150 minutes per week

	Monday	Tuesday	Wednesday	Thursday	Friday
Audiation	Echo sing on sol and mi (with or without solfege)≈ 5 minutes	Echo sing on sol and mi (with or without solfege) ≈ 5 minutes	Echo sing on sol and mi (with or without solfege) ≈ 5 minutes	Echo sing on sol and mi (with or without solfege) ≈ 5 minutes	Echo sing on sol and mi (with or without solfege) ≈ 5 minutes
Mechanics	Establish language: Fingering number system≈ 5 minutes • Provide finger numbering system handout. (Appendix C)	Reinforce Language: Fingering Number system. ≈ 5 minutes • Review and drill finger numbering identification	Reinforce Language: Fingering Number system. ≈ 5 minutes • Review and drill finger numbering identification	Reinforce Language: Fingering Number system. ≈ 5 minutes • Review and drill finger numbering identification	Assess understanding of fingering number system. ≈ 5 minutes • Finger numbering identification quiz (Appendix D)
Literacy	The staff: Basic anatomy ≈ 5 minutes	How to tell the difference between notes on lines and notes in spaces ≈ 10 minutes	Practice writing notes on lines and spaces ≈ 10 minutes	Notes on the Treble and Bass clef staves ≈ 10 minutes	Assess understanding of notes on the staff ≈ 10 minutes • Lines and spaces worksheet (Appendix E)
Instrumental Basics	Instrument Family Introduction ≈ 10 minutes	Instrument Family Focus: Woodwind ≈ 5 minutes	Instrument Family Focus: Brass ≈ 5 minutes	Instrument Family Focus: Percussion ≈ 5 minutes	

30 Minute Daily Model: 150 minutes per week

	Monday	Tuesday	Wednesday	Thursday	Friday
Audiation	Echo sing on sol, mi, and do (with or without solfege) ≈ 5 minutes	Echo sing on sol, mi, and do (with or without solfege) ≈ 5 minutes	Echo sing on sol, mi, and do (with or without solfege) ≈ 5 minutes	Echo sing on sol, mi, and do (with or without solfege) ≈ 5 minutes	Echo sing on sol, mi, and do (with or without solfege) ≈ 5 minutes
Mechanics	Establish language: Fingering Charts≈ 5 minutes • Provide beginning band first 5 notes fingering charts. (Appendix F)	Reinforce Language: Finger Numbering system. ≈ 5 minutes • Review and drill finger numbering identification	Reinforce Language: Finger Numbering system. ≈ 5 minutes • Review and drill finger numbering identification	Reinforce Language: Finger Numbering system. ≈ 5 minutes • Review and drill finger numbering identification	Reinforce Language: Finger Numbering system. ≈ 5 minutes • Review and drill finger numbering identification
Literacy	Note Name Reading Practice and Drill ≈ 15 minutes Reading and Clapping whole and half notes	Note Name Reading Practice and Drill ≈ 15 minutes Reading and Clapping whole, half, and quarter notes	Note Name Reading Practice and Drill ≈ 15 minutes Reading and Clapping whole, half, quarter, and eighth notes	Note Name Reading Practice and Drill ≈ 15 minutes Reading and Clapping whole, half, quarter, and eighth notes and rests	Assess note value and name reading. Label the note names and values in an 8-measure excerpt. ≈ 15 minutes
Instrumental Basics					

30 Minute Daily Model: 150 minutes per week

	Monday	Tuesday	Wednesday	Thursday	Friday
Audiation	Echo sing on sol, mi, re, and do (with or without solfege) ≈ 5 minutes	Echo sing on sol, mi, re, and do (with or without solfege) ≈ 5 minutes	Echo sing on sol, mi, re, and do (with or without solfege) ≈ 5 minutes	Echo sing on sol, mi, re, and do (with or without solfege) ≈ 5 minutes	Echo sing on sol, mi, re, and do (with or without solfege) ≈ 5 minutes
Mechanics	Reading and singing notes with fingerings ≈ 15 minutes*	Reading and singing notes with fingerings ≈ 15 minutes*	Reading and singing notes with fingerings ≈ 15 minutes*	Reading and singing notes with fingerings ≈ 15 minutes*	Reading and singing notes with fingerings ≈ 5 minutes* • First Five Notes Fingering Quiz (Appendix G)
Literacy	Reading and singing notes with fingerings ≈ 15 minutes* Review Reading and Clapping whole, half, quarter, and eighth notes and rests ≈ 5 minutes	Reading and singing notes with fingerings ≈ 15 minutes*	Reading and singing notes with fingerings ≈ 15 minutes*	Reading and singing notes with fingerings ≈ 15 minutes*	Reading and singing notes with fingerings ≈ 5 minutes*
Instrumental Basics			Preparing for day 1 with instruments: Opening the case, transport, precautions. ≈ 10 minutes	Woodwind assembly and reed care ≈ 10 minutes	Brass assembly and valve/slide oil. ≈ 10 minutes

* Indicates that an activity is also listed in another category but should not be done multiple times.

30 Minute Daily Model: 150 minutes per week

	Monday	Tuesday	Wednesday	Thursday	Friday
Audiation	Echo sing on sol, fa, mi, re, and do (with or without solfege)≈ 5 minutes	Echo sing on sol, fa, mi, re, and do (with or without solfege)≈ 5 minutes	Echo sing on sol, fa, mi, re, and do (with or without solfege)≈ 5 minutes	Echo sing on sol, fa, mi, re, and do (with or without solfege)≈ 5 minutes	Echo sing on sol, fa, mi, re, and do (with or without solfege)≈ 5 minutes
Mechanics	Fingering repetition and drill on instruments ≈ 5 minutes	Practice switching between concert Bb and concert F without making sound. ≈ 5 minutes	Practice switching between concert Bb, C, and F without making sound. ≈ 5 minutes	Practice switching between concert Bb, C, D, and F without making sound. ≈ 5 minutes	Practice switching between concert Bb, C, D, Eb, and F without making sound. ≈ 5 minutes
Literacy					
Instrumental Basics	Day 1 with instruments: Review opening the case and assembly ≈ 5 minutes First sounds on mouthpieces and articulation ≈ 10 minutes	Making sound/articulating on mouthpieces ≈ 5 minutes Alternating between playing concert Bb and Concert F ≈ 10 minutes	Making sound/articulating on mouthpieces ≈ 5 minutes Practice transitioning from Concert Bb to C to F ≈ 10 minutes	Making sound/articulating on mouthpieces ≈ 5 minutes Practice transitioning from Concert Bb to C to D to F ≈ 10 minutes	Making sound/articulating on mouthpieces ≈ 5 minutes Practice playing Concert Bb through F ascending

Appendix B

Audiation Training Singing Exercises

The specified combinations should be used in class daily for the designated week. The instructor should sing each example (measure) slowly, allowing the students to match pitch with them before proceeding to the next example. After the class has gone through the set one time, the instructor will sing each example individually. After each example, the class should discuss what considerations to keep in mind before trying to echo the series of notes themselves. Students should consider things such as knowing their starting pitch is the highest, lowest, or that there is a pitch pattern. Once the class has discussed which details are significant and how they can mentally prepare to echo the example, the teacher will sing the example for the students to immediately echo as a group.

Step 1: Instructor sings all examples slowly and class matches pitch

Step 2: Listen and Evaluate: Instructor Sings and Class Responds measure by measure

"What do I need to do to match those sounds? What did my ears observe about that series of pitches? Can I hear those notes in my head before I sing?"

Step 3: Instructor Sings and Class Echoes the melody measure by measure

Week 1: Sol and Mi. Use the following combinations.

Week 2: Sol, Mi, and Do. Use the following combinations

Week 3: Sol, Mi, Re, and Do

Week 4: Sol, Fa, Mi, Re, and Do

Appendix C

Finger Numbering System Handout

Flute Finger Numbering System
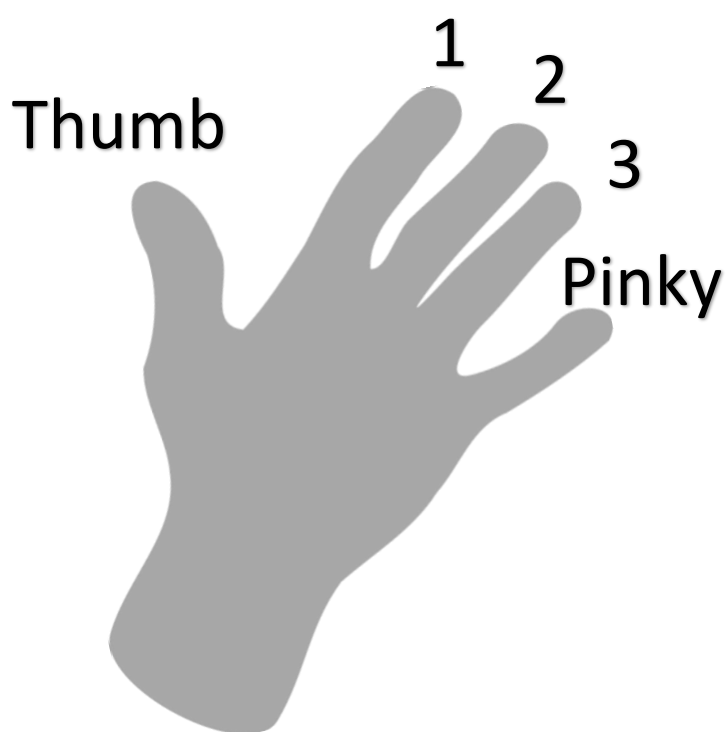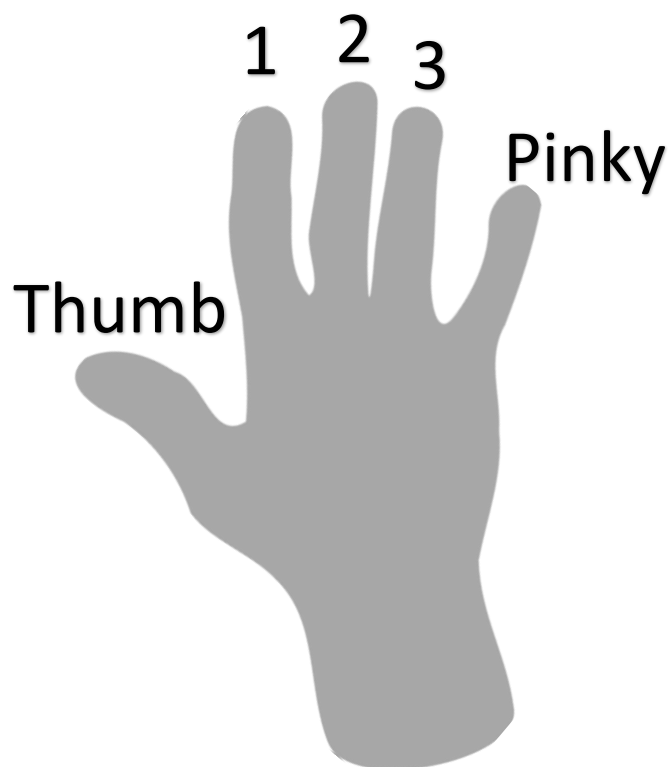
Thumb 1 2 3 Pinky

Left hand
(Palm facing you)

Thumb 1 2 3 Pinky

Right hand
(Palm away from you)

Clarinet/Saxophone Finger Numbering System

Thumb

Left hand
(Palm facing you)

1

2

3

Pinky

Thumb

1

2

3

Pinky

Right hand
(Palm facing you)
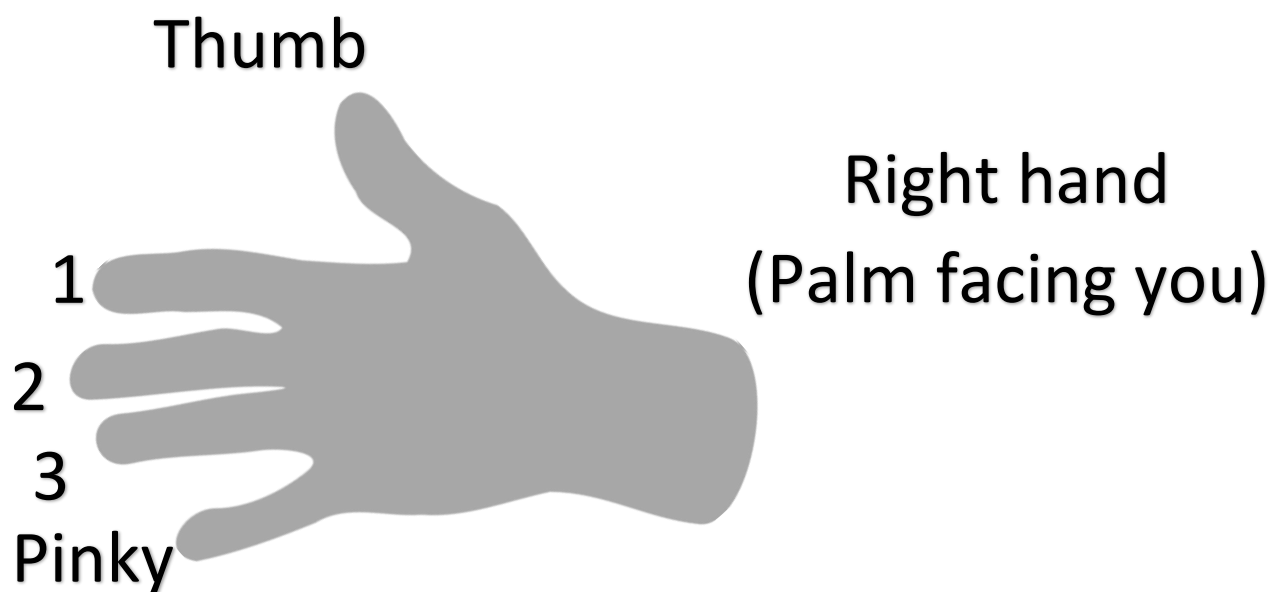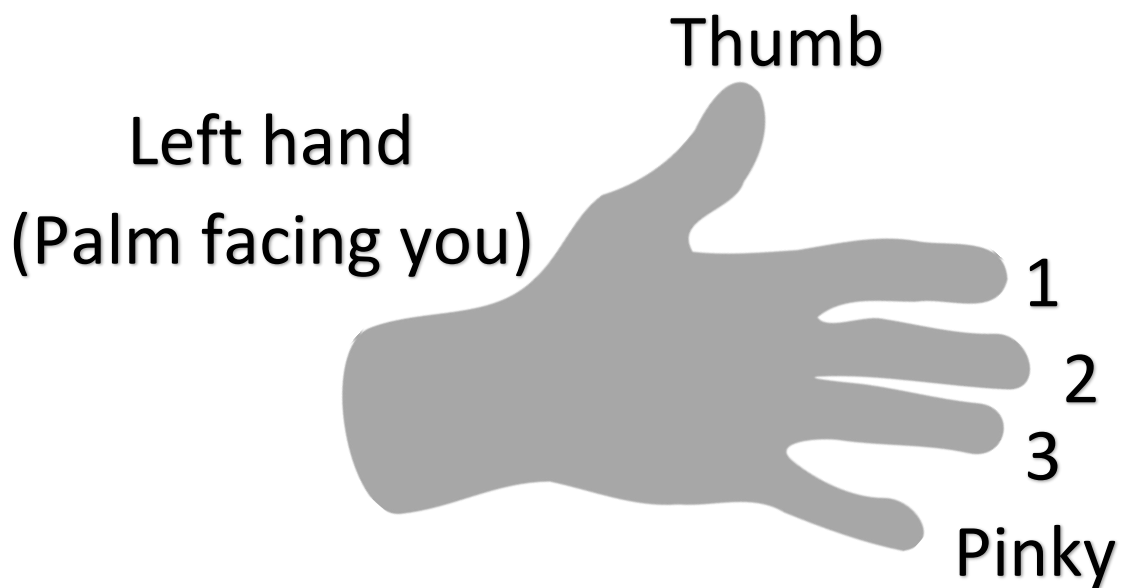
Valved Brass Finger Numbering System

Right-Handed Brass

1   2   3

Right hand
(Palm away from you)

Left-Handed Brass

3   2   1

Thumb

Left hand
(Palm away from you)

Appendix D

Finger Numbering Quiz

Flute Finger Numbering System

Label each of the fingers with the correct name according to communicating instrument
fingerings
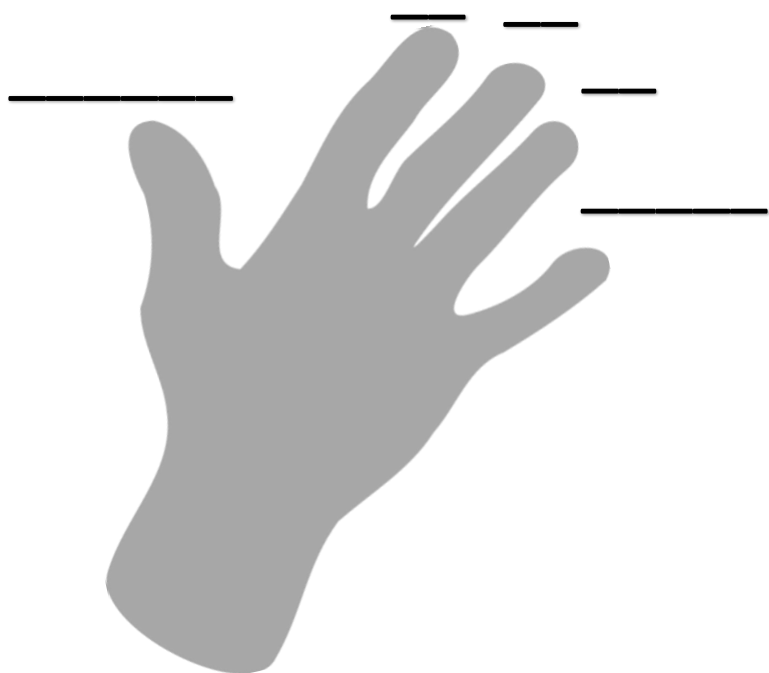
Left hand
(Palm facing you)
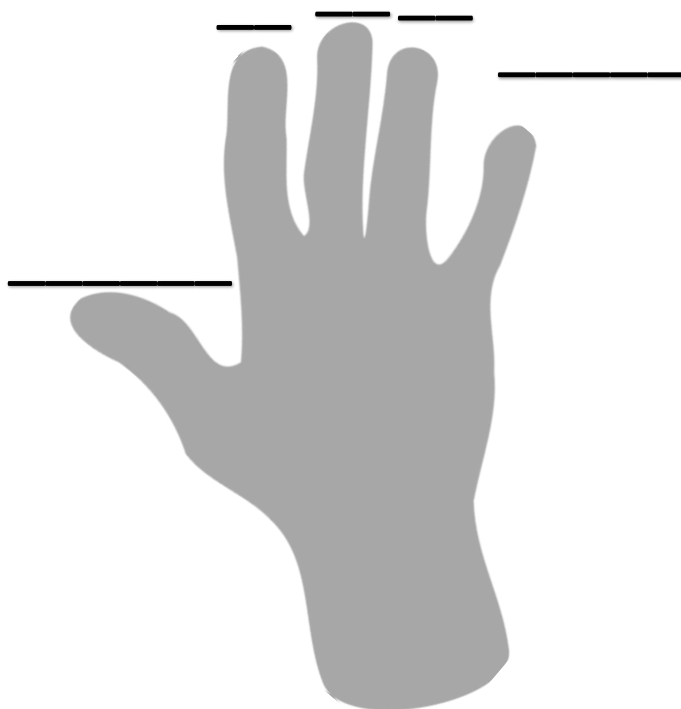
Right hand
(Palm away from you)

Clarinet/Saxophone Finger Numbering System

Label each of the fingers with the correct name according to communicating instrument fingerings

Left hand
(Palm facing you)

_____

___

___

___

_____

_____

___

___

___

_____
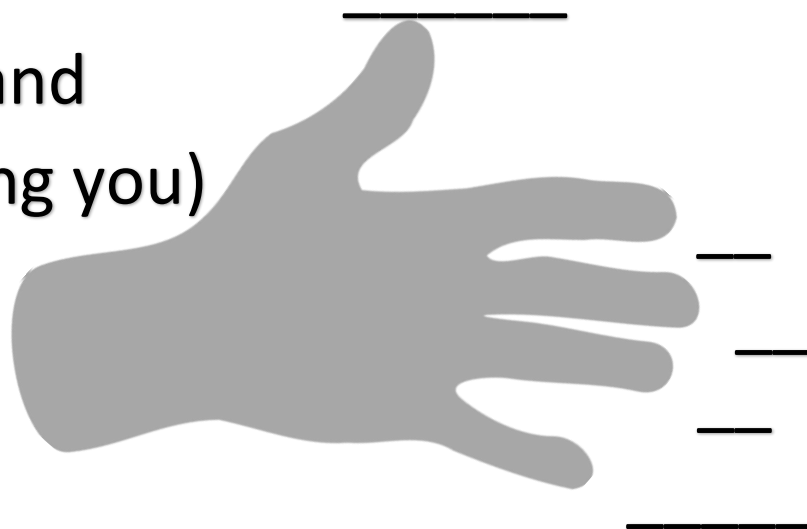
Right hand
(Palm facing you)
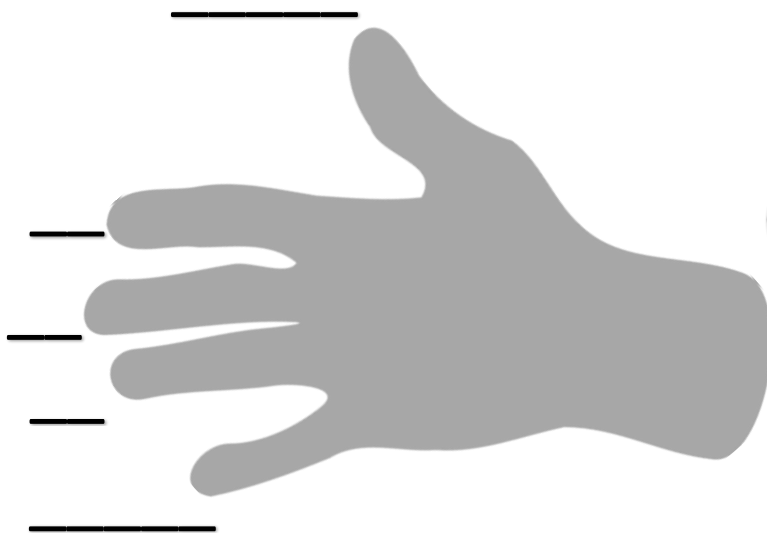
Valved Brass Finger Numbering System

Label each of the fingers with the correct name according to communicating instrument fingerings

Right-Handed Brass

___ ___ ___

Right hand
(Palm away from you)

Left-Handed Brass

___ ___ ___

_____

Left hand
(Palm away from you)
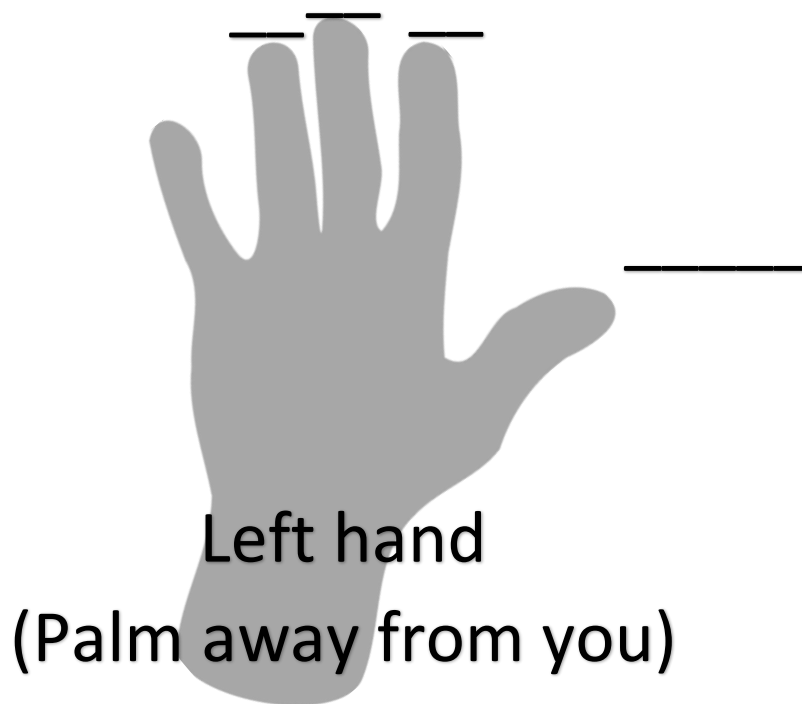
Appendix E

Lines and Spaces Assessment Worksheet

Name:_____   Date:_____

Lines and Spaces on the Staff

A note is considered to be on a line if the note head (the round part) is being cut in half by a line.

A note is considered to be in a space if the outer edges touch 2 lines on either side of the note, but do not go through it.

1. Practice drawing notes on the lines. Choose any of the notes in the examples above. Draw one of those notes on each line of the staff below.

2. Practice drawing notes on the spaces. Choose any of the notes in the examples above. Draw one of those notes on each line of the staff below.
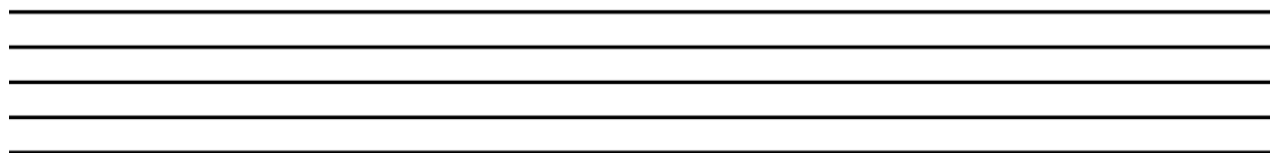
Appendix F

First Five Notes Fingering Charts

Flute First 5 Notes

Bb

C

D

Eb

F

Clarinet First 5 Notes
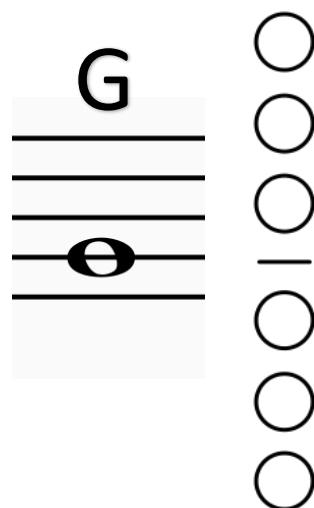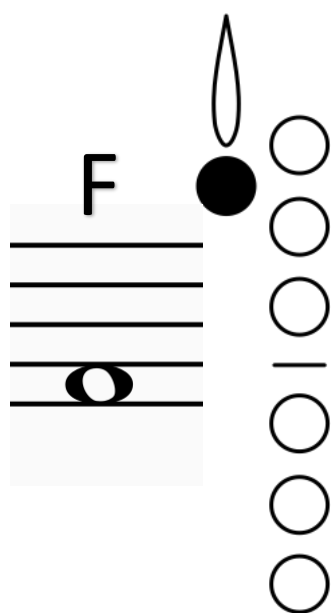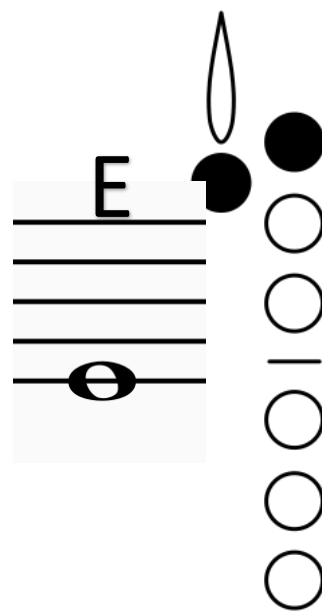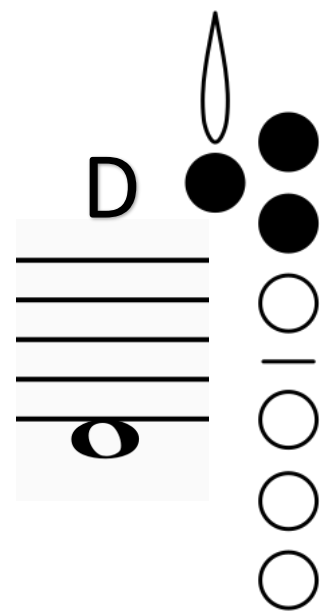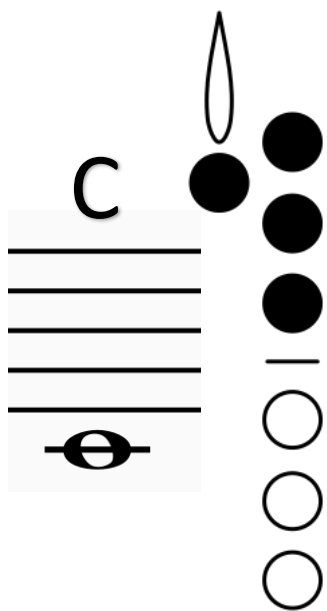
Saxophone First 5 Notes
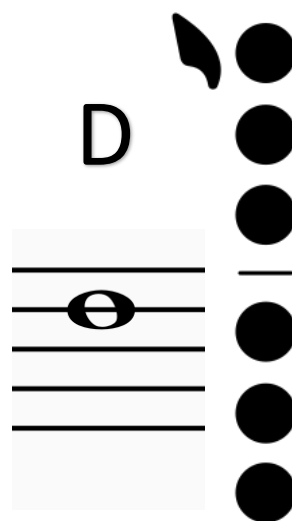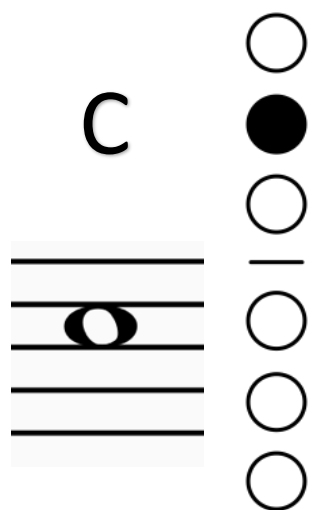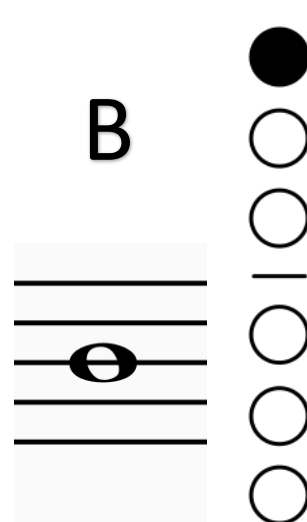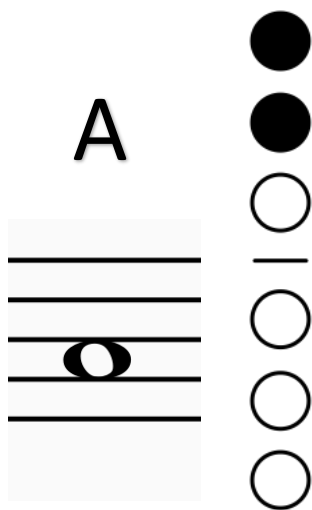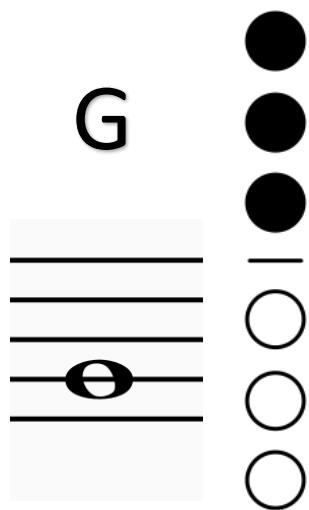
Trumpet First 5 Notes
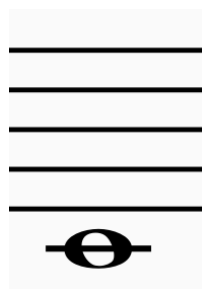
C
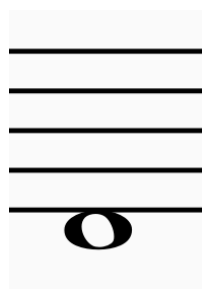
D
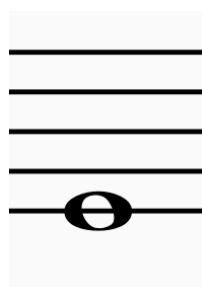
E
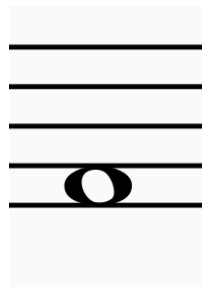
F
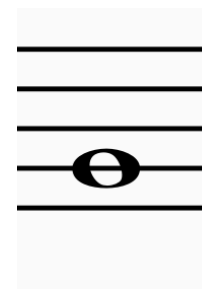
G

French Horn First 5 Notes
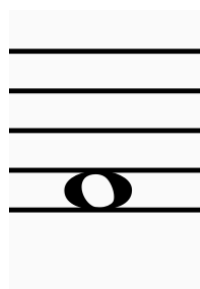
F
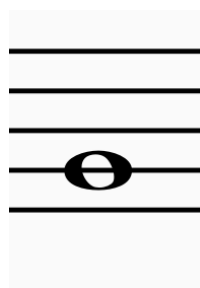
G
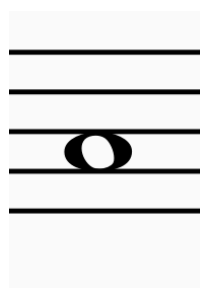
A

Bb
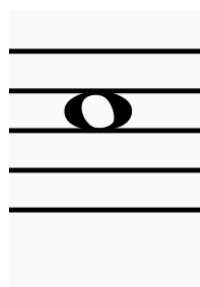
C

Trombone First 5 Notes
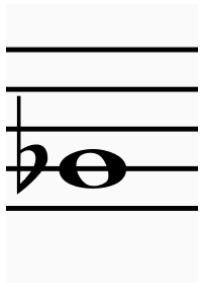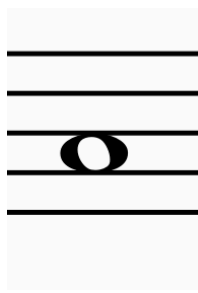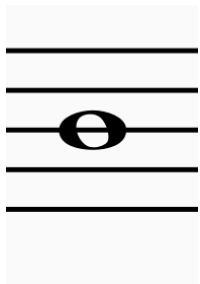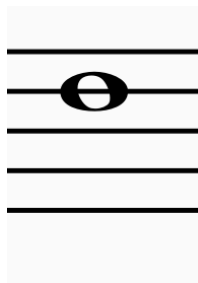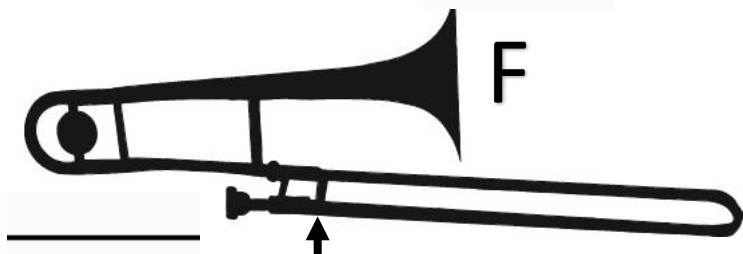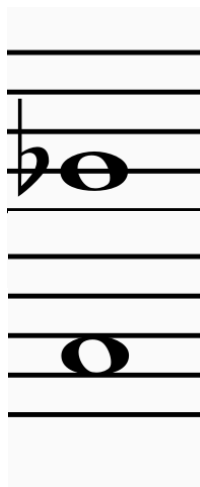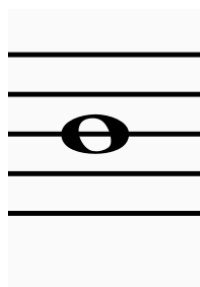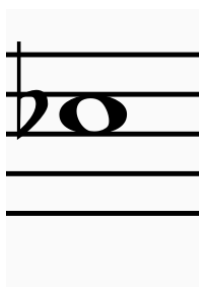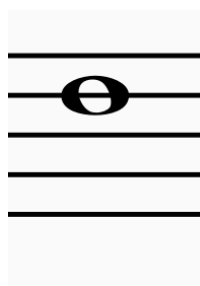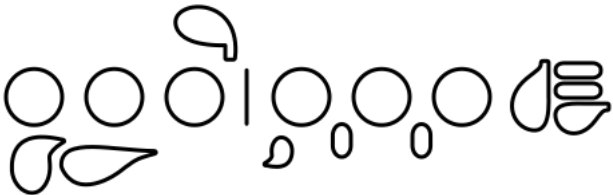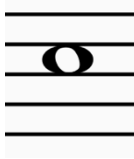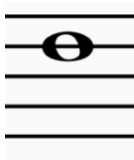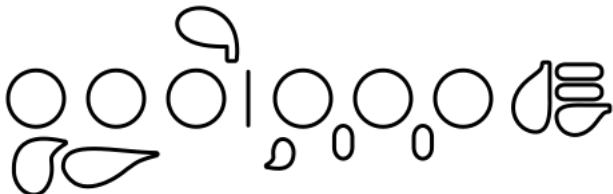
Baritone First 5 Notes

Appendix G

First 5 Notes Fingerings Quiz

Flute First 5 Notes

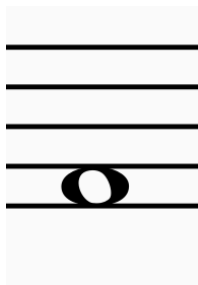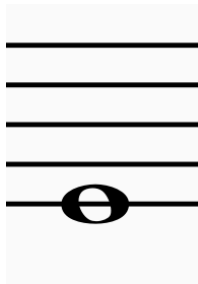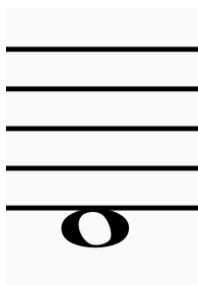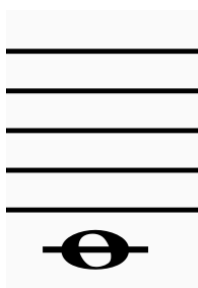# Clarinet First 5 Notes
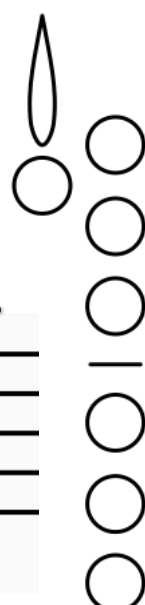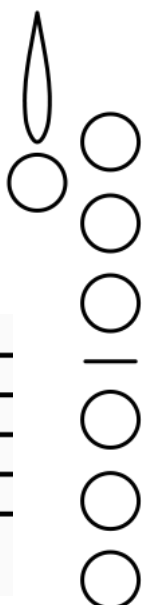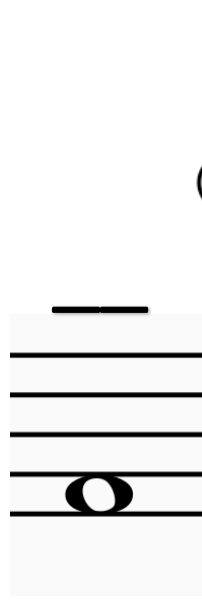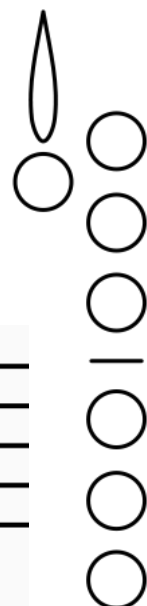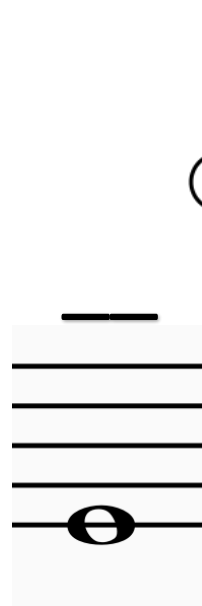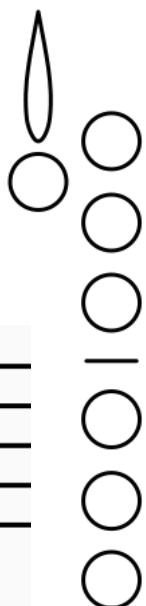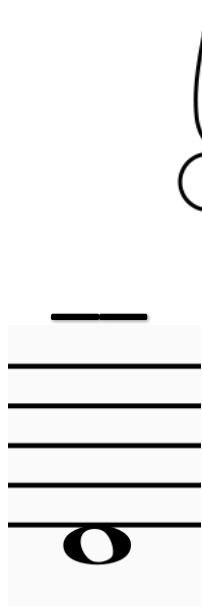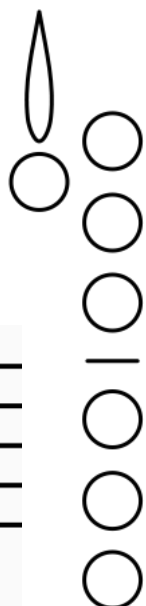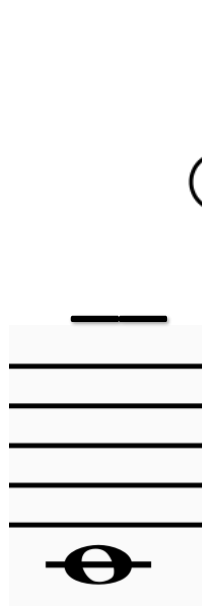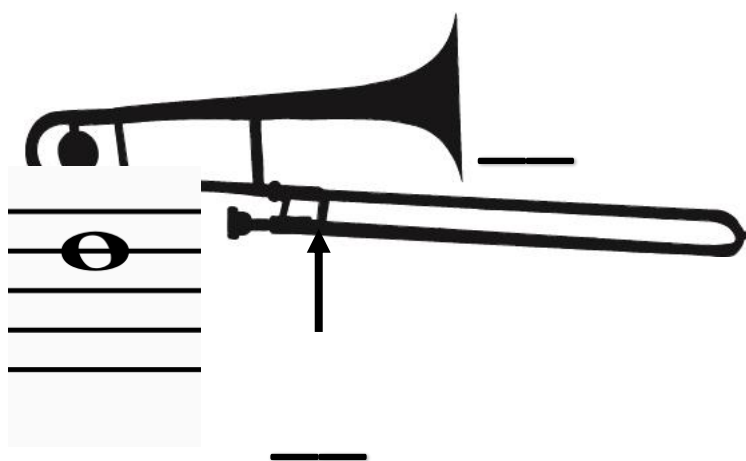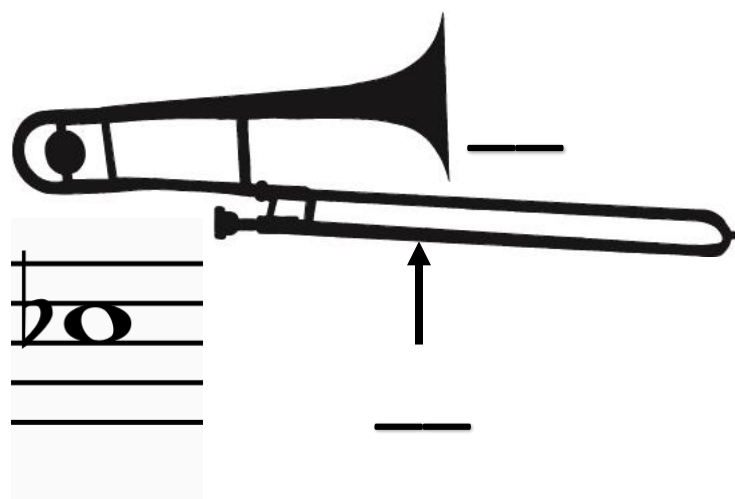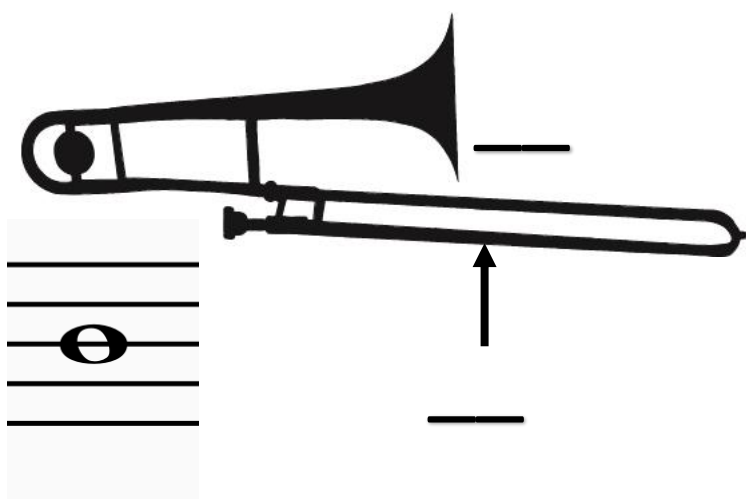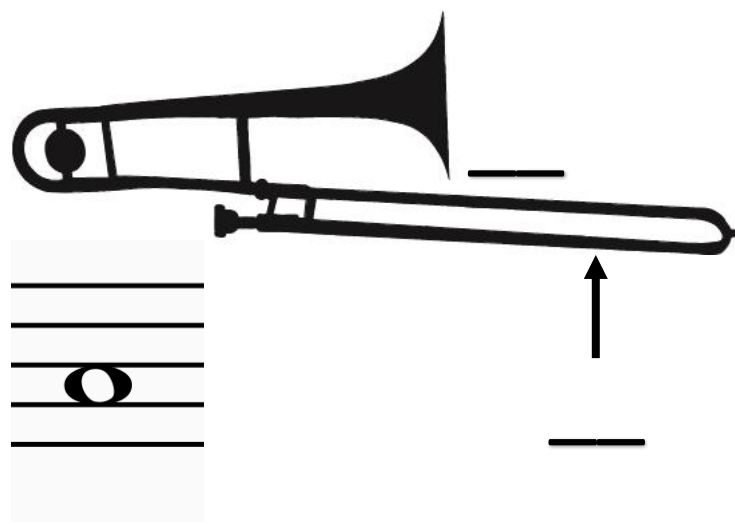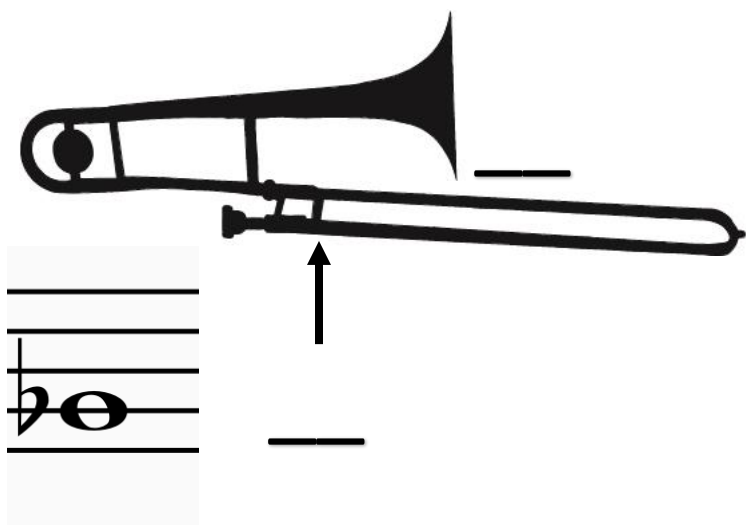
Saxophone First 5 Notes
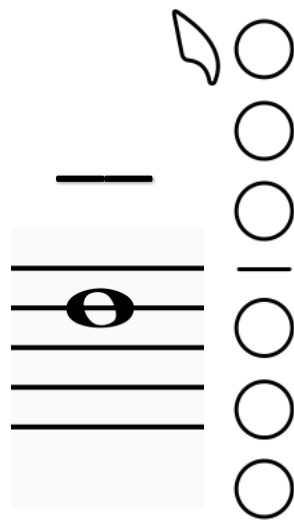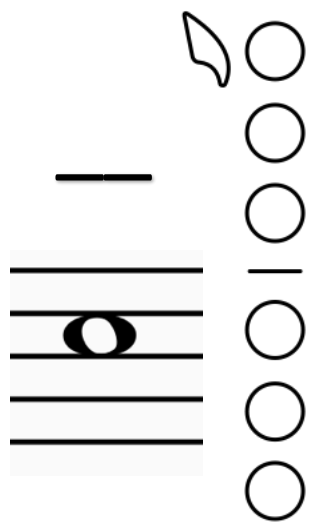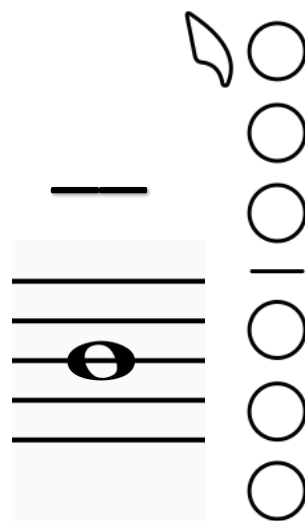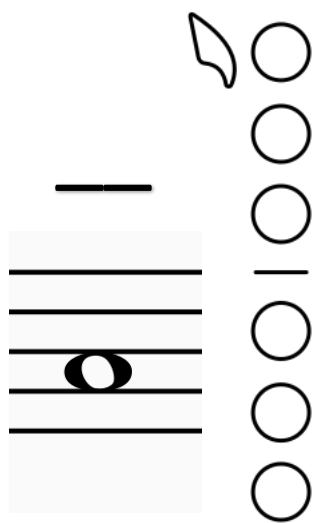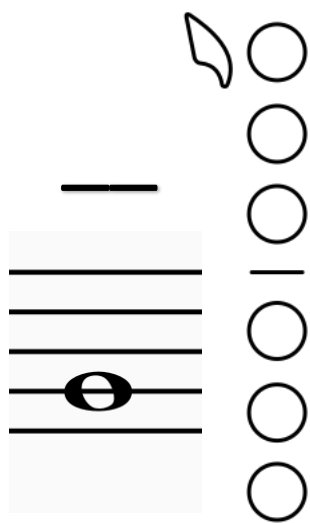
Trumpet First 5 Notes

French Horn First 5 Notes

Trombone First 5 Notes

Baritone First 5 Notes

Appendix H

Daily Lesson Plans

Method Book Readiness Lesson Plan				
Week	1	Day	1	
Lesson Objectives- The students will: • Match pitch with their voice • Echo a series of pitches using sol and mi. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Identify basic staff anatomy such as lines, spaces, clef, ledger lines, and bar lines. • Name the instrument families in a standard concert band. • Identify primary characteristics of concert band instrument families.		National Standards: • MU:Pr6A.E.5a • MU:Re7.2.E.5a		
Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol and Mi individually and in succession. • Produce accurate pitch on sol and mi through singing.	Targeted Questions: • Which is higher, sol or mi? • What needs to happen before I sing to make sure I match the pitch?	Materials Needed: • None	
Activity: Introduction to Instrument Fingering Language	Goals: • Know which way hand(s) are facing to play your instrument. • Name fingers correctly by the given name. • Name fingers in the correct order.	Targeted Questions: • Does it matter where your hands go on your instrument? Why? • Which direction(s) should your hand(s) face? • Why would we name the fingers in the order we have been?	Materials Needed: • Finger Numbering System Handout	

Activity: The Staff-Board Work	Goals: • Know how many lines and spaces are on the staff. • Identify a treble and bass clef. • Know which clef their chosen instrument reads. • Identify a bar line. • Recognize ledger lines.	Targeted Questions: • How many lines are on the staff? • How many spaces are on the staff? • What do ledger lines do? • Why would we need ledger lines? • What does a bar line mean?	Materials Needed: • None
Activity: Instrument Family Presentation	Goals: • Name the 3 band instrument families. • Identify the primary family characteristics of each instrument family.	Targeted Questions: • How many instrument families are there in a concert band? • What are the instrument families in the concert band? • What unique characteristic does each family have?	Materials Needed: • Instrument Family Presentation/Videos

Method Book Readiness Lesson Plan				
Week	1	Day	2	
Lesson Objectives- The students will: • Match pitch with their voice • Echo a series of pitches using sol and mi. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Produce fingering combinations at verbal request. • Identify whether a note is on a line or in a space. • Name the instruments in the woodwind family. • Communicate precautions and procedures related to woodwind instrument care.		National Standards: • MU:Pr6A.E.5a • MU:Re7.2.E.5a		
Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol and Mi individually and in succession. • Produce accurate pitch on sol and mi through singing.	Targeted Questions: • Which is higher, sol or mi? • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?		Materials Needed: • None
Activity: Review and Drill Instrument Fingering Language	Goals: • Know which way hand(s) are facing to play your instrument. • Name fingers correctly by the given name. • Name fingers in the correct order. • Demonstrate various finger combinations	Targeted Questions: • Does it matter where your hands go on your instrument? Why? • Which direction(s) should your hand(s) face? • Why would we name the fingers in the order we have been?		Materials Needed: • Finger Numbering System Handout (already in possession of students)

Activity: The Staff-Board Work	Goals: • Know how many lines and spaces are on the staff. • Discern whether a note is on a line or in a space. • Describe how notes on lines and spaces appear differently.	Targeted Questions: • How many lines are on the staff? • How many spaces are on the staff? • How can you tell if a note is on a line or in a space? • Does it matter if the note is filled in or not?	Materials Needed: • None
Activity: Instrument Family Presentation: Woodwinds	Goals: • Name the band instruments of the woodwind family. • Identify the primary family characteristics of the woodwind family. • Communicate woodwind instrument care fundamentals (avoiding moisture, using cork grease, reed care, etc.)	Targeted Questions: • What instruments are in the woodwind family? • How is sound produced on each of the woodwind instruments? • Why do some instruments need cork? • Why wouldn't you want to leave a reed on your instrument? • Why should you be careful with the keys during assembly?	Materials Needed: • Instrument Family Presentation/Videos • Demonstration instruments

Method Book Readiness Lesson Plan				
Week	1	Day	3	

Lesson Objectives- The students will:		National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol and mi. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce fingering combinations at verbal request. - Write whole, half, and quarter notes on lines and spaces. - Name the instruments in the brass family. - Communicate precautions and procedures related to brass instrument care.		- MU:Pr6A.E.5a - MU:Re7.2.E.5a	

| Activity: Echo Singing

*Note: Solfege is based on Concert Bb being designated as Do | Goals:
• Develop audiation ability through singing.
• Match pitch on Sol and Mi individually and in succession.
• Produce accurate pitch on sol and mi through singing. | Targeted Questions:
• Which is higher, sol or mi?
• What needs to happen before I sing to make sure I match the pitch?
• What can I do to make sure I produce the correct pitch before I sing? | Materials Needed:
• None |
|---|---|---|---|
| Activity: Review and Drill Instrument Fingering Language | Goals:
• Know which way hand(s) are facing to play your instrument.
• Name fingers correctly by the given name.
• Name fingers in the correct order.
• Demonstrate various finger combinations | Targeted Questions:
• Does it matter where your hands go on your instrument? Why?
• Which direction(s) should your hand(s) face?
• Why would we name the fingers in the order we have been?
• Do you find it easier to navigate combinations with one hand than the | Materials Needed:
• Finger Numbering System Handout (already in possession of students) |

		other? What can you do to fix that?	
Activity: Writing Notes on the Staff	Goals: • Write Whole, Half, and Quarter Notes. • Be able to correctly write a note on a line or space.	Targeted Questions: • What does it look like when a note is on a line? • What does it look like if a note is in a space? • What part of the note is the focal point when determining if it is on a line or in a space? • Does it matter if the note is filled in or not?	Materials Needed: • Staff Paper
Activity: Instrument Family Presentation: Brass	Goals: • Name the band instruments of the brass family. • Identify the primary family characteristics of the brass family. • Communicate brass instrument care fundamentals (Oiling and greasing the instrument, inserting the mouthpiece, etc.)	Targeted Questions: • What instruments are in the brass family? • How is sound produced on each of the brass instruments? • Why do brass instruments need oil/grease? • How do you get rid of built-up spit in a brass instrument? • What would cause a mouthpiece to get stuck?	Materials Needed: • Instrument Family Presentation/Videos • Demonstration instruments

Method Book Readiness Lesson Plan				
Week	1	Day	4	
Lesson Objectives- The students will: • Match pitch with their voice • Echo a series of pitches using sol and mi. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Produce fingering combinations at verbal request. • Identify the note names on all of the lines and spaces of their given clef. • Name instruments in the percussion family. • Communicate precautions and procedures related to percussion instrument care.		National Standards: • MU:Pr6A.E.5a • MU:Re7.2.E.5a		
Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol and Mi individually and in succession. • Produce accurate pitch on sol and mi through singing.	Targeted Questions: • Which is higher, sol or mi? • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?		Materials Needed: • None
Activity: Review and Drill Instrument Fingering Language	Goals: • Know which way hand(s) are facing to play your instrument. • Name fingers correctly by the given name. • Name fingers in the correct order. • Demonstrate various finger combinations	Targeted Questions: • Does it matter where your hands go on your instrument? Why? • Which direction(s) should your hand(s) face? • Why would we name the fingers in the order we have been? • Do you find it easier to navigate combinations with		Materials Needed: • Finger Numbering System Handout (already in possession of students)

		one hand than the other? What can you do to fix that?	
Activity: Naming Notes on the Staff	Goals: • Identify the notes on the lines and spaces of the appropriate clef.	Targeted Questions: • What does it look like when a note is on a line? • What does it look like if a note is in a space? • What is a pneumonic memory device we can use to remember the notes on the lines or in the spaces?	Materials Needed: • None
Activity: Instrument Family Presentation: Percussion	Goals: • Name instruments in the brass family. • Identify the primary family characteristics of the percussion family. • Communicate percussion instrument care fundamentals (Mallet care, drumhead vulnerabilities, proper storage/transportation, stick/mallet selection per instrument.)	Targeted Questions: • What instruments are in the percussion family? • How is sound produced on percussion instruments? • Why do you not set items on percussion instruments? • What is the difference between a mallet and drumstick?	Materials Needed: • Instrument Family Presentation/Videos • Demonstration instruments

Method Book Readiness Lesson Plan				
Week	1	Day	5	

Lesson Objectives- The students will:			National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol and mi. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce fingering combinations at verbal request. - Write notes on lines or spaces upon request.			- MU:Pr6A.E.5a - MU:Re7.2.E.5a	

Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol and Mi individually and in succession. • Produce accurate pitch on sol and mi through singing.	Targeted Questions: • Which is higher, sol or mi? • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: • None
Activity: Fingering Numbering System Assessment	Goals: • Know which way hand(s) are facing to play your instrument. • Name fingers correctly by the given name. • Name fingers in the correct order. • Demonstrate various finger combinations	Targeted Questions: • Does it matter where your hands go on your instrument? Why? • Which direction(s) should your hand(s) face? • Why would we name the fingers in the order we have been? • Do you find it easier to navigate combinations with one hand than the	Materials Needed: • Finger Numbering System Quiz

		other? What can you do to fix that?	
Activity: Assess Notes on Lines and Spaces	Goals: • Write notes on lines or spaces upon request.	Targeted Questions: • What does it look like when a note is on a line? • What does it look like if a note is in a space?	Materials Needed: • Lines and Spaces Worksheet Assessment.

Method Book Readiness Lesson Plan				
Week	2	Day	1	

Lesson Objectives- The students will:		National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol, mi, and do. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce fingering combinations at verbal request. - Read and interpret a fingering chart. - Produce fingering combinations from reading a fingering chart. - Identify, Read, Clap, and Count whole and half notes.		- MU:Pr6A.E.5a - MU:Re7.2.E.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a	

Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: - Develop audiation ability through singing. - Match pitch on Sol, Mi, and Do individually and in succession. - Produce accurate pitch on Sol, Mi, and Do through singing.	Targeted Questions: - Which is higher, Sol or Mi? Sol or Do? Mi or Do? - What needs to happen before I sing to make sure I match the pitch? - What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: None
Activity: Introduce Fingering Charts	Goals: - Know which way hand(s) are facing to play your instrument. - Name fingers correctly by the given name. - Name fingers in the correct order. - Demonstrate various finger combinations - Read and Interpret a Fingering Chart to produce fingering combinations.	Targeted Questions: - Does it matter where your hands go on your instrument? Why? - Which direction(s) should your hand(s) face? - Why would we name the fingers in the order we have been? - Do you find it easier to navigate combinations with one hand than the	Materials Needed: First 5 Notes Fingering Chart

	• Produce the correct fingering for each of their first 5 notes.	other? What can you do to fix that? • How can you tell whether a key or valve is pressed on a fingering chart?	
Activity: Reading Rhythms and Review Note Names	Goals: • Identify whole notes and half notes. • Recall the number of beats in whole notes and half notes. • Read, clap, and count half notes and whole notes. • Name the notes on the lines and spaces.	Targeted Questions: • How do whole and half notes look different? • How many beats does a whole note get? • How many beats does a half note get? • How can you keep track of how many beats have passed?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	2	Day	2	

Lesson Objectives- The students will:		National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol, mi, and do. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce fingering combinations at verbal request. - Read and interpret a fingering chart. - Produce fingering combinations from reading a fingering chart. - Identify, Read, Clap, and Count whole, half, and quarter notes.		- MU:Pr6A.E.5a - MU:Re7.2.E.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a	

| Activity: Echo Singing

*Note: Solfege is based on Concert Bb being designated as Do | Goals: Develop audiation ability through singing. Match pitch on Sol, Mi, and Do individually and in succession. Produce accurate pitch on Sol, Mi, and Do through singing. | Targeted Questions: Which is higher, Sol or Mi? Sol or Do? Mi or Do? What needs to happen before I sing to make sure I match the pitch? What can I do to make sure I produce the correct pitch before I sing? | Materials Needed: None |
| Activity: Review and Drill Fingering Charts | Goals: Know which way hand(s) are facing to play your instrument. Name fingers correctly by the given name. Name fingers in the correct order. Demonstrate various finger combinations Read and Interpret a Fingering Chart to produce fingering combinations. | Targeted Questions: Does it matter where your hands go on your instrument? Why? Which direction(s) should your hand(s) face? Why would we name the fingers in the order we have been? Do you find it easier to navigate combinations with one hand than the | Materials Needed: First 5 Notes Fingering Chart (Already in possession of students). |

	• Produce the correct fingering for each of their first 5 notes.	other? What can you do to fix that? • How can you tell whether a key or valve is pressed on a fingering chart?	
Activity: Reading Rhythms and Review Note Names	Goals: • Identify whole notes, half notes, and quarter notes. • Recall the number of beats in whole notes, half notes, and quarter notes. • Read, clap, and count whole, half, and quarter notes. • Name the notes on the lines and spaces.	Targeted Questions: • How do whole, half, and quarter notes look different? • How many beats does a whole note get? • How many beats does a half note get? • How many beats does a quarter note get? • How can you keep track of how many beats have passed?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	2	Day	3	

Lesson Objectives- The students will:		National Standards:	
• Match pitch with their voice • Echo a series of pitches using sol, mi, and do. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Produce fingering combinations at verbal request. • Read and interpret a fingering chart. • Produce fingering combinations from reading a fingering chart. • Identify, Read, Clap, and Count whole, half, quarter, and paired eighth notes.		• MU:Pr6A.E.5a • MU:Re7.2.E.5a • MU:Pr4.3.E.5a • MU: Pr5.3.E.5a	

Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol, Mi, and Do individually and in succession. • Produce accurate pitch on Sol, Mi, and Do through singing.	Targeted Questions: • Which is higher, Sol or Mi? Sol or Do? Mi or Do? • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: • None
Activity: Review and Drill Fingering Charts	Goals: • Know which way hand(s) are facing to play your instrument. • Name fingers correctly by the given name. • Name fingers in the correct order. • Demonstrate various finger combinations • Read and Interpret a Fingering Chart to	Targeted Questions: • Does it matter where your hands go on your instrument? Why? • Which direction(s) should your hand(s) face? • Why would we name the fingers in the order we have been? • Do you find it easier to navigate combinations with	Materials Needed: • First 5 Notes Fingering Chart (Already in possession of students).

	produce fingering combinations. • Produce the correct fingering for each of their first 5 notes.	one hand than the other? What can you do to fix that? • How can you tell whether a key or valve is pressed on a fingering chart?	
Activity: Reading Rhythms and Review Note Names	Goals: • Identify whole notes, half notes, quarter notes, and paired eighth notes. • Recall the number of beats in whole notes, half notes, quarter notes, and paired eighth notes. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Name the notes on the lines and spaces.	Targeted Questions: • How do whole, half, and quarter notes look different? • How many beats does a whole note get? • How many beats does a half note get? • How many beats does a quarter note get? • How many beats does each eighth note in the pair get? • How can you keep track of how many beats have passed?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	2	Day	4	

Lesson Objectives- The students will:		National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol, mi, and do. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce fingering combinations at verbal request. - Read and interpret a fingering chart. - Produce fingering combinations from reading a fingering chart. - Identify, Read, Clap, and Count whole, half, quarter, and paired eighth notes. - Identify, Read, Clap, and Count whole, half, and quarter rests.		- MU:Pr6A.E.5a - MU:Re7.2.E.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a	

| Activity: Echo Singing

*Note: Solfege is based on Concert Bb being designated as Do | Goals:
Develop audiation ability through singing. Match pitch on Sol, Mi, and Do individually and in succession. Produce accurate pitch on Sol, Mi, and Do through singing. | Targeted Questions:
Which is higher, Sol or Mi? Sol or Do? Mi or Do? What needs to happen before I sing to make sure I match the pitch? What can I do to make sure I produce the correct pitch before I sing? | Materials Needed:
None |
|---|---|---|---|
| Activity: Review and Drill Fingering Charts | Goals:
Know which way hand(s) are facing to play your instrument. Name fingers correctly by the given name. Name fingers in the correct order. Demonstrate various finger combinations | Targeted Questions:
Does it matter where your hands go on your instrument? Why? Which direction(s) should your hand(s) face? Why would we name the fingers in the order we have been? | Materials Needed:
First 5 Notes Fingering Chart (Already in possession of students). |

	• Read and Interpret a Fingering Chart to produce fingering combinations. • Produce the correct fingering for each of their first 5 notes.	• Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that? • How can you tell whether a key or valve is pressed on a fingering chart?	
Activity: Reading Rhythms and Review Note Names	Goals: • Identify whole notes, half notes, quarter notes, and paired eighth notes. • Recall the number of beats in whole notes, half notes, quarter notes, and paired eighth notes. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, Clap, and Count whole, half, quarter rests. • Name the notes on the lines and spaces.	Targeted Questions: • How do whole, half, and quarter notes look different? • How many beats does a whole note get? • How many beats does a half note get? • How many beats does a quarter note get? • How many beats does each eighth note in the pair get? • How can you keep track of how many beats have passed? • How are rests different from notes?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	2	Day	5	

Lesson Objectives- The students will:		National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol, mi, and do. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce fingering combinations at verbal request. - Read and interpret a fingering chart. - Produce fingering combinations from reading a fingering chart. - Identify, Read, Clap, and Count whole, half, quarter, and paired eighth notes. - Identify, Read, Clap, and Count whole, half, and quarter rests.		- MU:Pr6A.E.5a - MU:Re7.2.E.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a	
Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: - Develop audiation ability through singing. - Match pitch on Sol, Mi, and Do individually and in succession. - Produce accurate pitch on Sol, Mi, and Do through singing.	Targeted Questions: - Which is higher, Sol or Mi? Sol or Do? Mi or Do? - What needs to happen before I sing to make sure I match the pitch? - What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: None
Activity: Review and Drill Fingering Charts	Goals: - Know which way hand(s) are facing to play your instrument. - Name fingers correctly by the given name. - Name fingers in the correct order. - Demonstrate various finger combinations	Targeted Questions: - Does it matter where your hands go on your instrument? Why? - Which direction(s) should your hand(s) face? - Why would we name the fingers in the order we have been?	Materials Needed: First 5 Notes Fingering Chart (Already in possession of students).

	• Read and Interpret a Fingering Chart to produce fingering combinations. • Produce the correct fingering for each of their first 5 notes.	• Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that? • How can you tell whether a key or valve is pressed on a fingering chart?	
Activity: Assess Note and Rhythm Reading	Goals: • Identify whole notes, half notes, quarter notes, and paired eighth notes. • Recall the number of beats in whole notes, half notes, quarter notes, and paired eighth notes. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, Clap, and Count whole, half, quarter rests. • Name the notes on the lines and spaces.	Targeted Questions: • How do whole, half, and quarter notes look different? • How many beats does a whole note get? • How many beats does a half note get? • How many beats does a quarter note get? • How many beats does each eighth note in the pair get? • How can you keep track of how many beats have passed? • How are rests different from notes?	Materials Needed: • Method Book Excerpt

Method Book Readiness Lesson Plan				
Week	3	Day	1	

Lesson Objectives- The students will:
- Match pitch with their voice
- Echo a series of pitches using sol, mi, re and do.
- Correctly orient their hands for instrument carriage.
- Identify fingers my name as they will be used on their fingering charts.
- Produce fingering combinations at verbal request.
- Read and interpret a fingering chart.
- Produce fingering combinations from reading a fingering chart.
- Identify, Read, Clap, and Count whole, half, quarter, and paired eighth notes.
- Identify, Read, Clap, and Count whole, half, and quarter rests.
- Sing note names with accurate pitch while producing fingerings on their instrument.

National Standards:
- MU:Pr6A.E.5a
- MU:Re7.2.E.5a
- MU:Pr4.3.E.5a
- MU: Pr5.3.E.5a
- MU:Pr4.3.E.5a

| Activity: Echo Singing

*Note: Solfege is based on Concert Bb being designated as Do | Goals:
- Develop audiation ability through singing.
- Match pitch on Sol, Mi, Re and Do individually and in succession.
- Produce accurate pitch on Sol, Mi, Re and Do through singing. | Targeted Questions:
- Which is higher from these various pitch combinations?
- What needs to happen before I sing to make sure I match the pitch?
- What can I do to make sure I produce the correct pitch before I sing? | Materials Needed:
- None |
|---|---|---|---|
| Activity: Reading and Singing Notes with Fingerings | Goals:
- Demonstrate various finger combinations
- Read and Interpret a Fingering Chart to produce fingering combinations. | Targeted Questions:
- Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that? | Materials Needed:
- First 5 Notes Fingering Chart (Already in possession of students). |

	• Match pitch with instructor while singing note names. • Produce the correct fingering for each of their first 5 notes from memory. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, and Sing whole, half, quarter rests. • Name the notes on the lines and spaces.	• Which note fingerings do you forget the most? • Is there a pattern between the order of our notes and the fingerings?	
Activity: Review Note and Rhythm Reading	Goals: • Identify whole notes, half notes, quarter notes, and paired eighth notes. • Recall the number of beats in whole notes, half notes, quarter notes, and paired eighth notes. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, Clap, and Count whole, half, quarter rests. • Name the notes on the lines and spaces.	Targeted Questions: • How do whole, half, and quarter notes look different? • How many beats does a whole note get? • How many beats does a half note get? • How many beats does a quarter note get? • How many beats does each eighth note in the pair get? • How can you keep track of how many beats have passed? • How are rests different from notes?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	3	Day	2	
Lesson Objectives- The students will: • Match pitch with their voice • Echo a series of pitches using sol, mi, re and do. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Produce fingering combinations at verbal request. • Read and interpret a fingering chart. • Produce fingering combinations from reading a fingering chart. • Identify, Read, and Sing whole, half, quarter, and paired eighth notes. • Identify, Read, and Sing whole, half, and quarter rests. • Sing note names with accurate pitch while producing fingerings on their instrument.			National Standards: • MU:Pr6A.E.5a • MU:Re7.2.E.5a • MU:Pr4.3.E.5a • MU: Pr5.3.E.5a • MU:Pr4.3.E.5a	
Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol, Mi, Re and Do individually and in succession. • Produce accurate pitch on Sol, Mi, Re and Do through singing.	Targeted Questions: • Which is higher from these various pitch combinations? • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: • None	
Activity: Reading and Singing Notes with Fingerings	Goals: • Demonstrate various finger combinations • Read and Interpret a Fingering Chart to produce fingering combinations. • Match pitch with instructor while singing note names.	Targeted Questions: • Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that? • Which note fingerings do you forget the most?	Materials Needed: • First 5 Notes Fingering Chart (Already in possession of students).	

	• Produce the correct fingering for each of their first 5 notes from memory. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, and Sing whole, half, quarter rests. • Name the notes on the lines and spaces.	• Is there a pattern between the order of our notes and the fingerings?	
Activity: Review Note and Rhythm Reading	Goals: • Identify whole notes, half notes, quarter notes, and paired eighth notes. • Recall the number of beats in whole notes, half notes, quarter notes, and paired eighth notes. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, Clap, and Count whole, half, quarter rests. • Name the notes on the lines and spaces.	Targeted Questions: • How do whole, half, and quarter notes look different? • How many beats does a whole note get? • How many beats does a half note get? • How many beats does a quarter note get? • How many beats does each eighth note in the pair get? • How can you keep track of how many beats have passed? • How are rests different from notes?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	3	Day	3	
Lesson Objectives- The students will: • Match pitch with their voice • Echo a series of pitches using sol, mi, re and do. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Produce fingering combinations at verbal request. • Read and interpret a fingering chart. • Produce fingering combinations from reading a fingering chart. • Identify, Read, and Sing whole, half, quarter, and paired eighth notes. • Identify, Read, and Sing whole, half, and quarter rests. • Sing note names with accurate pitch while producing fingerings on their instrument. • Demonstrate which direction to open their instrument case. • Communicate knowledge on how to safely transport their instrument.			National Standards: • MU:Pr6A.E.5a • MU:Re7.2.E.5a • MU:Pr4.3.E.5a • MU: Pr5.3.E.5a • MU:Pr4.3.E.5a	
Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol, Mi, Re and Do individually and in succession. • Produce accurate pitch on Sol, Mi, Re and Do through singing.	Targeted Questions: • Which is higher from these various pitch combinations? • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: • None	
Activity: Reading and Singing Notes with Fingerings	Goals: • Demonstrate various finger combinations • Read and Interpret a Fingering Chart to	Targeted Questions: • Do you find it easier to navigate combinations with one hand than the	Materials Needed: • First 5 Notes Fingering Chart (Already in possession of students).	

	produce fingering combinations. • Match pitch with instructor while singing note names. • Produce the correct fingering for each of their first 5 notes from memory. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, and Sing whole, half, quarter rests. • Name the notes on the lines and spaces.	other? What can you do to fix that? • Which note fingerings do you forget the most? • Is there a pattern between the order of our notes and the fingerings?	
Activity: Prepare for Day 1 With Instruments: Opening the Case	Goals: • Demonstrate which direction to open their case. • Identify safe places to store their instruments.	Targeted Questions: • Why does it matter which direction the case is opened? • How could leaving an instrument in a car result in damage? • When should an instrument be out of its case?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	3	Day	4	
Lesson Objectives- The students will: • Match pitch with their voice • Echo a series of pitches using sol, mi, re and do. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Produce fingering combinations at verbal request. • Read and interpret a fingering chart. • Produce fingering combinations from reading a fingering chart. • Identify, Read, and Sing whole, half, quarter, and paired eighth notes. • Identify, Read, and Sing whole, half, and quarter rests. • Sing note names with accurate pitch while producing fingerings on their instrument. • Assemble their instrument. (Woodwind Students) • Demonstrate proper reed handling, placement, and hygiene. (Woodwind Students)		National Standards: • MU:Pr6A.E.5a • MU:Re7.2.E.5a • MU:Pr4.3.E.5a • MU: Pr5.3.E.5a • MU:Pr4.3.E.5a		
Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol, Mi, Re and Do individually and in succession. • Produce accurate pitch on Sol, Mi, Re and Do through singing.	Targeted Questions: • Which is higher from these various pitch combinations? • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?		Materials Needed: • None
Activity: Reading and Singing Notes with Fingerings	Goals: • Demonstrate various finger combinations • Read and Interpret a Fingering Chart to	Targeted Questions: • Do you find it easier to navigate combinations with one hand than the		Materials Needed: • First 5 Notes Fingering Chart (Already in

	produce fingering combinations. • Match pitch with instructor while singing note names. • Produce the correct fingering for each of their first 5 notes from memory. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, and Sing whole, half, quarter rests. • Name the notes on the lines and spaces.	other? What can you do to fix that? • Which note fingerings do you forget the most? • Is there a pattern between the order of our notes and the fingerings?	possession of students).
Activity: Prepare for Day 1 With Instruments: Assembly and Care	Goals: • Demonstrate how to properly assemble their instrument (Woodwinds) • Demonstrate proper reed care, placement, and hygiene. (Woodwinds)	Targeted Questions: • Why is it important to keep our reed in good condition? • What are the qualities of a reed that is in good condition? Bad condition? • How should our reed be placed? • Where do you hold the various pieces of your instrument when putting it together? Why? • What parts of your instrument should line up?	Materials Needed: • Plastic Reed (Recommended) • Demo Instruments

Method Book Readiness Lesson Plan				
Week	3	Day	5	

Lesson Objectives- The students will:		National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol, mi, re and do. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce fingering combinations at verbal request. - Read and interpret a fingering chart. - Produce fingering combinations from reading a fingering chart. - Identify, Read, and Sing whole, half, quarter, and paired eighth notes. - Identify, Read, and Sing whole, half, and quarter rests. - Sing note names with accurate pitch while producing fingerings on their instrument. - Assemble their instrument. (Brass Students) - Demonstrate proper instrument handling and maintenance. (Brass Students)		- MU:Pr6A.E.5a - MU:Re7.2.E.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a - MU:Pr4.3.E.5a	

| Activity: Echo Singing

 *Note: Solfege is based on Concert Bb being designated as Do | Goals: Develop audiation ability through singing. Match pitch on Sol, Mi, Re and Do individually and in succession. Produce accurate pitch on Sol, Mi, Re and Do through singing. | Targeted Questions: Which is higher from these various pitch combinations? What needs to happen before I sing to make sure I match the pitch? What can I do to make sure I produce the correct pitch before I sing? | Materials Needed: None |
| Activity: Reading and Singing Notes with Fingerings | Goals: Demonstrate various finger combinations Read and Interpret a Fingering Chart to | Targeted Questions: Do you find it easier to navigate combinations with one hand than the | Materials Needed: First 5 Notes Fingering Chart (Already in |

	produce fingering combinations. • Match pitch with instructor while singing note names. • Produce the correct fingering for each of their first 5 notes from memory. • Read, clap, and count whole, half, quarter, and paired eighth notes. • Identify, Read, and Sing whole, half, quarter rests. • Name the notes on the lines and spaces.	other? What can you do to fix that? • Which note fingerings do you forget the most? • Is there a pattern between the order of our notes and the fingerings?	possession of students).
Activity: Prepare for Day 1 With Instruments: Assembly and Care	Goals: • Demonstrate how to properly assemble their instrument (Brass) • Demonstrate proper instrument handling and maintenance. (Brass)	Targeted Questions: • Where does oil go on your instrument? • How many valves should you take out at one time? • How often should you oil the valves/slide? • How is the mouthpiece inserted? • What should you do if your mouthpiece gets stuck?	Materials Needed: • Valve and Slide Oil • Demo Instruments

Method Book Readiness Lesson Plan				
Week	4	Day	1	

Lesson Objectives- The students will:			National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol, fa, mi, re and do. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce 2 note fingering combinations on their instruments at verbal request. - Read and interpret a fingering chart. - Produce fingering combinations on their instrument from reading a fingering chart. - Properly assemble their instrument - Produce a sound on their instrument mouthpiece. - Articulate on their mouthpiece.			- MU:Pr6A.E.5a - MU:Re7.2.E.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a - MU:Pr4.1.H.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a - MU:Pr6A.E.5b	

Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: - Develop audiation ability through singing. - Match pitch on Sol, Fa, Mi, Re and Do individually and in succession. - Produce accurate pitch on Sol, Fa, Mi, Re and Do through singing.	Targeted Questions: - Which is higher of these various note combinations - What needs to happen before I sing to make sure I match the pitch? - What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: None
Activity: Review and Drill Fingering Charts	Goals: - Know which way hand(s) are facing to play your instrument. - Name fingers correctly by the given name. - Name fingers in the correct order.	Targeted Questions: Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that?	Materials Needed: First 5 Notes Fingering Chart (Already in possession of students).

Activity: Making Sound	Goals: • Produce a characteristic sound on their instrument mouthpiece. • Articulate on their instrument mouthpiece.	Targeted Questions: • What do you physically have to do to produce sound? • What should you avoid doing when trying to produce sound? • If you're having trouble producing a note, what steps should you take?	Materials Needed: • None

Method Book Readiness Lesson Plan						
Week	4	Day	2			

Lesson Objectives- The students will:		National Standards:	
• Match pitch with their voice • Echo a series of pitches using sol, fa, mi, re and do. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Produce fingering combinations on their instruments at verbal request. • Read and interpret a fingering chart. • Produce fingering combinations on their instrument from reading a fingering chart. • Properly assemble their instrument • Produce a sound on their instrument mouthpiece. • Articulate on their mouthpiece. • Play 2 notes in succession on their instrument.		• MU:Pr6A.E.5a • MU:Re7.2.E.5a • MU:Pr4.3.E.5a • MU: Pr5.3.E.5a • MU:Pr4.1.H.5a • MU:Pr4.3.E.5a • MU: Pr5.3.E.5a • MU:Pr6A.E.5b	

Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol, Fa, Mi, Re and Do individually and in succession. • Produce accurate pitch on Sol, Fa, Mi, Re and Do through singing.	Targeted Questions: • Which is higher of these various note combinations • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: • None
Activity: Review and Drill Fingering Charts	Goals: Goals: • Know which way hand(s) are facing to play your instrument. • Name fingers correctly by the given name. • Name fingers in the correct order.	Targeted Questions: • Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that?	Materials Needed: • First 5 Notes Fingering Chart (Already in possession of students).

	• Switch fingerings between concert Bb and concert F.		
Activity: Making Sound	Goals: • Produce a characteristic sound on their instrument mouthpiece. • Articulate on their instrument mouthpiece. • Play concert Bb and concert F in succession.	Targeted Questions: • What do you physically have to do to produce sound? • What should you avoid doing when trying to produce sound? • If you're having trouble producing a note, what steps should you take? • What fingers need to change to switch between these notes?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	4	Day	3	

Lesson Objectives- The students will:		National Standards:	
- Match pitch with their voice - Echo a series of pitches using sol, fa, mi, re and do. - Correctly orient their hands for instrument carriage. - Identify fingers my name as they will be used on their fingering charts. - Produce fingering combinations on their instruments at verbal request. - Read and interpret a fingering chart. - Produce fingering combinations on their instrument from reading a fingering chart. - Properly assemble their instrument - Produce a sound on their instrument mouthpiece. - Articulate on their mouthpiece. - Play 3 notes in succession on their instrument.		- MU:Pr6A.E.5a - MU:Re7.2.E.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a - MU:Pr4.1.H.5a - MU:Pr4.3.E.5a - MU: Pr5.3.E.5a - MU:Pr6A.E.5b	

Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: - Develop audiation ability through singing. - Match pitch on Sol, Fa, Mi, Re and Do individually and in succession. - Produce accurate pitch on Sol, Fa, Mi, Re and Do through singing.	Targeted Questions: - Which is higher of these various note combinations - What needs to happen before I sing to make sure I match the pitch? - What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: None
Activity: Review and Drill Fingering Charts	Goals: Goals: - Know which way hand(s) are facing to play your instrument. - Name fingers correctly by the given name. - Name fingers in the correct order.	Targeted Questions: Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that?	Materials Needed: First 5 Notes Fingering Chart (Already in possession of students).

	• Switch fingerings between concert Bb, C, and F.		
Activity: Making Sound	Goals: • Produce a characteristic sound on their instrument mouthpiece. • Articulate on their instrument mouthpiece. • Play concert Bb, C, and F in succession.	Targeted Questions: • What do you physically have to do to produce sound? • What should you avoid doing when trying to produce sound? • If you're having trouble producing a note, what steps should you take? • What fingers need to change to switch between these notes?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	4	Day	4	

Lesson Objectives- The students will:		National Standards:	
• Match pitch with their voice • Echo a series of pitches using sol, fa, mi, re and do. • Correctly orient their hands for instrument carriage. • Identify fingers my name as they will be used on their fingering charts. • Produce fingering combinations on their instruments at verbal request. • Read and interpret a fingering chart. • Produce fingering combinations on their instrument from reading a fingering chart. • Properly assemble their instrument • Produce a sound on their instrument mouthpiece. • Articulate on their mouthpiece. • Play 4 notes in succession on their instrument.		• MU:Pr6A.E.5a • MU:Re7.2.E.5a • MU:Pr4.3.E.5a • MU: Pr5.3.E.5a • MU:Pr4.1.H.5a • MU:Pr4.3.E.5a • MU: Pr5.3.E.5a • MU:Pr6A.E.5b	

Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol, Fa, Mi, Re and Do individually and in succession. • Produce accurate pitch on Sol, Fa, Mi, Re and Do through singing.	Targeted Questions: • Which is higher of these various note combinations • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: • None
Activity: Review and Drill Fingering Charts	Goals: Goals: • Know which way hand(s) are facing to play your instrument. • Name fingers correctly by the given name. • Name fingers in the correct order.	Targeted Questions: • Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that?	Materials Needed: • First 5 Notes Fingering Chart (Already in possession of students).

	• Switch fingerings between concert Bb, C, D, and F.		
Activity: Making Sound	Goals: • Produce a characteristic sound on their instrument mouthpiece. • Articulate on their instrument mouthpiece. • Play concert Bb, C, D, and F in succession.	Targeted Questions: • What do you physically have to do to produce sound? • What should you avoid doing when trying to produce sound? • If you're having trouble producing a note, what steps should you take? • What fingers need to change to switch between these notes?	Materials Needed: • None

Method Book Readiness Lesson Plan				
Week	4	Day	5	

Lesson Objectives- The students will:		National Standards:	

Lesson Objectives- The students will:
- Match pitch with their voice
- Echo a series of pitches using sol, fa, mi, re and do.
- Correctly orient their hands for instrument carriage.
- Identify fingers my name as they will be used on their fingering charts.
- Produce fingering combinations on their instruments at verbal request.
- Read and interpret a fingering chart.
- Produce fingering combinations on their instrument from reading a fingering chart.
- Properly assemble their instrument
- Produce a sound on their instrument mouthpiece.
- Articulate on their mouthpiece.
- Play 5 notes in succession on their instrument.

National Standards:
- MU:Pr6A.E.5a
- MU:Re7.2.E.5a
- MU:Pr4.3.E.5a
- MU: Pr5.3.E.5a
- MU:Pr4.1.H.5a
- MU:Pr4.3.E.5a
- MU: Pr5.3.E.5a
- MU:Pr6A.E.5b

Activity: Echo Singing *Note: Solfege is based on Concert Bb being designated as Do	Goals: • Develop audiation ability through singing. • Match pitch on Sol, Fa, Mi, Re and Do individually and in succession. • Produce accurate pitch on Sol, Fa, Mi, Re and Do through singing.	Targeted Questions: • Which is higher of these various note combinations • What needs to happen before I sing to make sure I match the pitch? • What can I do to make sure I produce the correct pitch before I sing?	Materials Needed: • None
Activity: Review and Drill Fingering Charts	Goals: Goals: • Know which way hand(s) are facing to play your instrument. • Name fingers correctly by the given name. • Name fingers in the correct order.	Targeted Questions: • Do you find it easier to navigate combinations with one hand than the other? What can you do to fix that?	Materials Needed: • First 5 Notes Fingering Chart (Already in possession of students).

	• Switch fingerings between concert Bb, C, D, Eb, and F.		
Activity: Making Sound	Goals: • Produce a characteristic sound on their instrument mouthpiece. • Articulate on their instrument mouthpiece. • Play concert Bb, C, D, Eb, and F in succession.	Targeted Questions: • What do you physically have to do to produce sound? • What should you avoid doing when trying to produce sound? • If you're having trouble producing a note, what steps should you take? • What fingers need to change to switch between these notes?	Materials Needed: • None