Music lesson Plan (*Math In Music Unit*) Chris Weirman

Subject: Music/Math – Soda Rhythms

Grade: 4

Objective: To teach the students basic rhythms and reading notes using syllables of words (soda drinks) in which the students have prior knowledge. Students will learn to read quarter notes, eighth notes, and sixteenth notes, put a measure of rhythms together, and clap/write it using soda drinks as a guide. Previous lesson involved learning fractions. Students will be able to correlate the rhythms they learn (notes) as fractions in a note/measure (as their previous math lesson taught fractions a part of a whole).

IL State Standards Music:

25A — Students who meet the standard understand the sensory elements, organizational principles, and expressive qualities of the arts.

26B — Students who meet the standard can apply skills and knowledge necessary to create and perform in one or more of the arts.

Common Core Math Standards:

CC.4.NF.3 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. Understand a fraction a/b with a > 1 as a sum of fractions 1/b. (Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.)

Introduction (Focus/purpose of lesson, objective): Class starts by showing students pictures of pop cans that most may be familiar with (if not, we introduce for the first time). The students learn about syllables (from the soda cans) and try to clap the rhythms as they say the word. Teacher then introduces the rhythms (written notes) that the students are saying/clapping by defining musical notes: quarter notes, eighth notes, and sixteenth notes.

Materials: Smartboard with soda can rhythm lesson, pictures of soda cans (may bring the real ones in), handouts of musical notes/definitions, pencils, may use sticks or hands to for rhythms.

Lesson Components:

Demonstration/modeling (show them how): Teacher shows a picture of a 'Pepsi' can and claps the syllables 'Pep-si' (two claps) and then shows an eighth note, making a correlation between two eighth notes and the syllables in the word 'Pep-si'. Teacher does this with 5 different kinds of soda: Mountain Dew, Cream Soda, Sprite, and Dr. Pepper. Students join the teacher as they clap out the syllables of the words. Teacher introduces the musical notes that go along with the rhythms (syllables) they are saying/clapping. Teacher defines and shows: quarter note, eighth note, and sixteenth note.

Guided Practice (work with them): Teacher will link four rhythms (different soda cans) together and clap it out, creating one 4/4 measure (4/4 may defined in a later lesson). Students will use a 'Smartboard' lesson to help them place 4 soda cans in a row. The students will have to clap and say the 4 soda cans to create that rhythm pattern (example: 'Pep-si, Doc-tor-pep-er, Moun-tain-dew, Sprite'). Teacher has students come up to the smart board, listen to a pattern and assign the correct soda drink (notes) to the rhythms or syllables. Students then create their own pattern by placing 4 soda drinks of their choice in a row while the class claps the rhythmic pattern. Students can try to stump the class by making challenging patterns.

Independent Practice (on their own): Students will come up with 4 different patterns using soda cans as a reference (four 'one measure' patterns). The goal is to have them write the notes that the soda can represents in a measure. They can write the word above the notes as a reference if necessary.

Closure: Students will be able to recognize certain sixteenth note, eighth note, and quarter note patterns in a measure which is a great step in reading music. Music is full of different notes and patterns and getting the proper rhythm to a particular musical piece is important. The teacher can talk about the alphabet and how we sing to a certain rhythmic pattern when we learned that song. Without singing to the rhythmic pattern, the song isn't recognizable in most cases. After this exercise, the students can start to put together rhythmic patterns to songs they know and listen to on the radio.

Evaluation (proof objectives were met): Students will be able to correctly identify five different rhythmic patterns (quarter note, eighth note, and sixteenth note patterns). Students will be able to clap a pattern using soda pop syllables and then using just the notes that they represent. Students should be able to write a pattern of four rhythms in a row (representing one measure…to be defined and introduced later). A rubric will show expectations and if objectives were met.

Modifications:

ELL/ESL: We can introduce the same rhythmic patterns using pictures/words of drinks, animals, names, etc. in their language that have the same syllable patterns. We can use the same Smartboard exercise with the pictures/words in the native language.

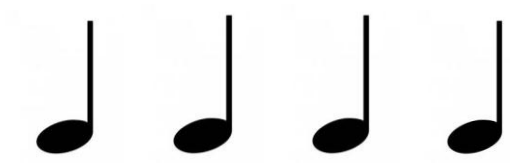
Special Education: We can focus on syllables using pictures that the students in special education are use to and use on daily basis. We hope to have them clap to certain syllables in these words. We can have them clap to songs that they should be aware of: 'Row, row, row your boat', the 'Alphabet song', and 'Twinkle, twinkle little star'.

Focus for next lesson: The next lesson for our **Math in Music** project involves converting feet into inches and inches to feet. This will help us measure tubes provided by the teacher in the following lesson. The bucket of pre-cut tubes (provided by the teacher) will need to be precisely measured because the exact length will create a sound frequency which directly correlates to a musical pitch (note…ex. 'middle C'). There will be connecting parts to put the different sized pipes together. Some of the connectors will be straight and others will be right angles. There will be extra pre-cut pipes so the students have precise measurements (off by merely inches will create a different note).

LESSONS RELATED: The next lesson can focus on defining measures and choosing a short song with the rhythmic pattern we can write out (the alphabet song). If time permits or if we need to build a lesson for the week (and beyond), we can start to introduce time signatures, instruments (percussion), and split the class up playing different parts (maybe hitting a bucket with drum sticks).

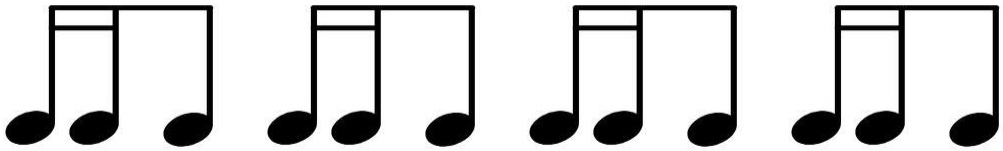
Learning to Read Music/Rhythms

Sprite Quarter Notes (1, 2, 3, 4)



Pep-si Eighth Notes (1 &, 2 &, 3 &, 4&)

Moun-tain-Dew (1 E &, 2 E &, 3 E &, 4 E &)



Cream So-da (1 & A, 2 & A, 3 & A, 4 & A)

Doc-tor-Pe-pper Sixteenth Notes (1 E & A, 2 E & A, 3 E & A 4 E & A)