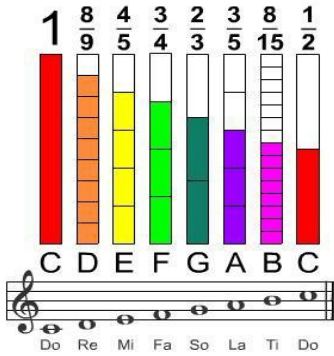


Musical Fractions

Grade 5 Core Concept/Math/Music

by Katherine Earl



Math Standard 5.NF.1

Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.)*

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Music Standard 5.M.P.7:

Perform and identify rhythm patterns in two-, three-, and four-beat meters using body percussion, voice, and simple instruments.

Objective: In a 60 minute lesson, students will analyze music for fractional parts in phrases and create new rhythmic compositions.

Equipment and Materials needed:

Paper and pencils

Copy of the music being used

<http://www.philtulga.com/fractionbars.html> (great website for doing Musical Fractions)

Introduction:

1. Take a piece of music (nursery rhyme or other song you are currently teaching like an American folksong) and analyze it for the number of phrases, the number of repeating musical phrases, number of syllables in the phrases, number of notes in each phrase, etc.
2. Have the students represent these pieces of information about the song in fractional terms. If a phrase goes longer than one measure, show how the value of the notes in the phrase would be represented as an improper fraction or mixed number. This will require teaching the value of the notes in the song and their relationship to each other.
3. Have students clap out the rhythms of the notes in the phrases. Allow them to work in pairs to create their own rhythm patterns. Put students in groups of four or six to combine their rhythm patterns together to create songs.
4. Then the students can perform their rhythmic creations for the class. Put each groups' creation down on the board and analyze the fraction of whole notes to the entire composition or the fraction of quarter notes to the length of the whole phrase.