

BASIC MUSIC THEORY

Clefs and Notes

Also view *Clefs and ClefNotes*

Our system of musical notation is not perfect, but it has been refined over centuries, and it works pretty well. It is logical, and flexible, and not difficult at its core. It makes sense.

Clefs are used to indicate the range of pitches shown on a staff. They also serve to identify a starting note from which all the other notes can be determined.

Teaching students *Every Good Boy Does Fine* as a way to remember which notes go on which staff lines when employing a G clef, turns an elegant, rational system into a seemingly arbitrary system, serving only to give our students something else to memorize instead of to comprehend.

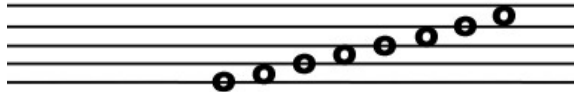

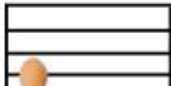
Up means higher.

Down means lower.

Line, space, line, space, line, space, etc.

ABCDEFG then start over ABCDEFGABCDEFG

These are the only four concepts that are required to gain a basic understanding of the notation system, enabling one to begin reading music. If, instead of directing our students to learn to read only the treble clef, we take some time to explain and work with the concept that the G clef denotes a starting point of G, the F clef a starting point of F, and the C clef a starting point of C, they can read almost all music! They will read it slowly and painfully at first, but they will be able to read it. And that is education.

- Erase the board and draw a staff¹. Draw eight circles, sequentially from the bottom line to the top space. 
- Draw a G clef at the beginning of the staff, show your students how the clef identifies 'G', and based on that information, ask your students to direct you to write the names of the notes under each.
- Without altering the notes at all, erase the G clef and the note names underneath, then repeat the exercise with the F clef and then the C clef.
- It can be particularly useful if you and/or your students make up a clef or two and repeat the exercise using those. Here a couple examples:
 - The Contralto or A clef tells us where A is by both resting on the bottom line (A3) and pointing to the uppermost space (A4). 
 - The Baritone or E clef (commonly known as the egg clef) tells us where E is by resting on the second line (E3). 

¹ If you don't have access to a whiteboard, you can create a worksheet with several iterations of the staff and notes, on which the students can draw the clefs and name the notes correspondingly.

ClefNotes are a fun and easy way to reinforce reading notes on the staff. Using words that contain only the first seven letters of the alphabet, ClefNotes spell out English words using notes. These can be printed to hand out as homework or done on the board as a class activity. Here are a couple examples:



A musical staff with a treble clef. The first measure contains four quarter notes: B4, E4, A4, and D4. The second measure contains four quarter notes: G4, F4, E4, and D4. Below the staff, the letters B E A D are aligned under the first four notes. The rest of the staff is empty, with four dashes below it.



A musical staff with an alto clef. The first measure contains six quarter notes: B3, A3, G3, G3, A3, and E3. The second measure contains four quarter notes: D3, C3, B2, and A2. Below the staff, the letters B A G G A G E are aligned under the first six notes. The rest of the staff is empty, with four dashes below it.



A musical staff with a bass clef. The first measure contains six quarter notes: C3, A2, B2, B2, A2, and G2. The second measure contains four quarter notes: E2, D2, C2, and B1. Below the staff, the letters C A B B A G E are aligned under the first six notes. The rest of the staff is empty, with four dashes below it.

Rhythms

There are, of course, many ways to approach teaching rhythms. The best and easiest way to get your students started is by using Tees and Tahs.

Tees and Tahs are very good for two things. The first is helping students understand the concept of a beat or pulse and the idea that it can be split in half. The second is instilling in your students that there can be as many beats/pulses in a group/measure/bar as they like.

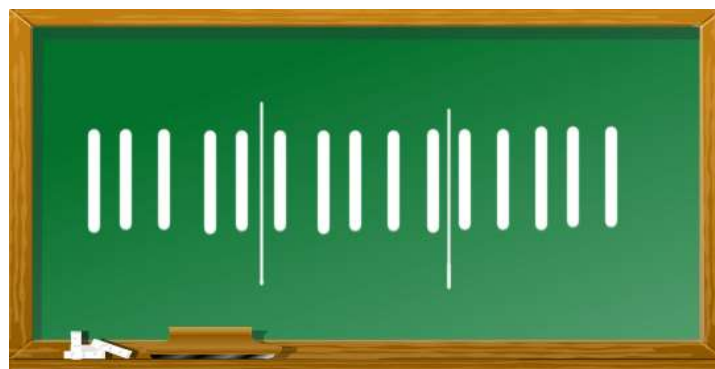
Begin by drawing a series of parallel vertical lines on the board.



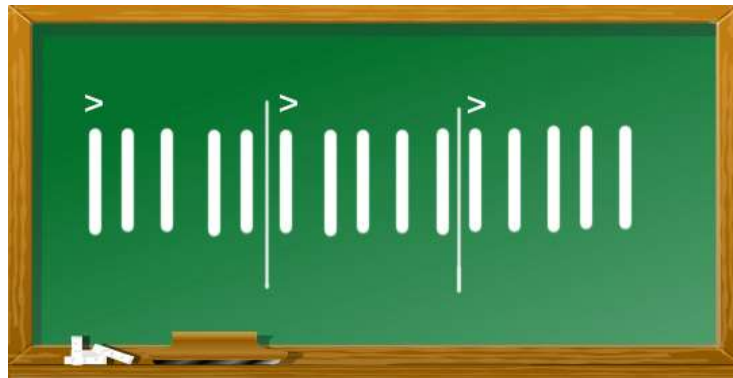
Ask your students to say 'Tah' as you point to each line, starting on the left side of the group of lines (looking at the board), working your way to the right. Try to point at a consistent rate, creating a 'pulse' or 'steady beat'.

Repeat this several times, then have a little fun with it; go faster or slower (within reason), point from right to left and back to left to right, etc., then have a student do the pointing.

While the student is at the board, ask him/her to put the Tahs into groups, each with the same number of Tahs, using longer vertical lines. (While verbally reinforcing the idea that there is no limit on the number of Tahs that can be in a group, for practicality's sake while doing this drill, ten or less is probably a good guideline.) If there are too few or too many Tahs to make the groups even, have your students add or erase Tahs until the groups are equal.



Put an accent mark > over the first Tah in each group and ask your students to repeat the exercise making the first Tah in each group a little 'stronger'.

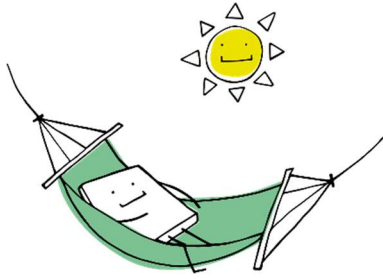


Ask numerous students to lead the exercise, with various numbers of Tahs in the groups. Once your students can perform flawlessly, ask them to clap as they Tah, and repeat the exercise.

Introduce Tees in a new session by simply saying that a Tee lasts half as long as a Tah, or that two Tees fit in the time of one Tah. Using the pattern below, point and demonstrate; Tah, Tah, Tee Tee, Tah.

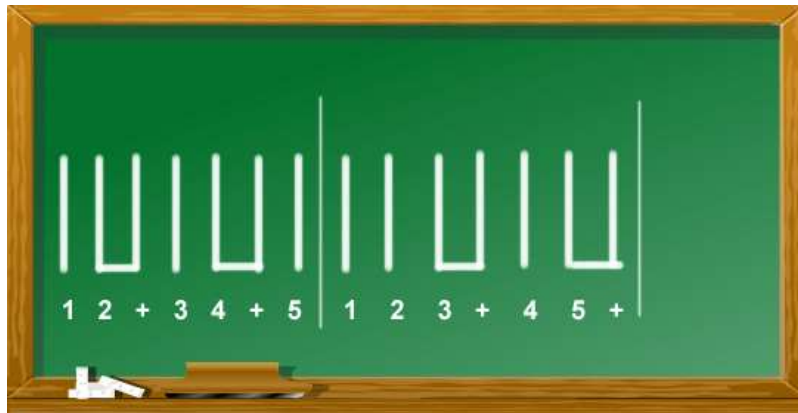


As with all practicing, a little every day is much more effective than a lot all at once, so instead of trying to get on to the next step by drilling Tees and Tahs heavily for a couple days, spend just a few minutes on it every day for a week, or even two. Ask your students to draw the Tees and Tahs and lead the class by pointing. Continue until your students can clap along as they Tee and Tah without effort, without mistakes, without a problem. Make sure your students create the groups of Tees and Tahs using varying amounts of beats/pulses in each group (not always 3 or 4).



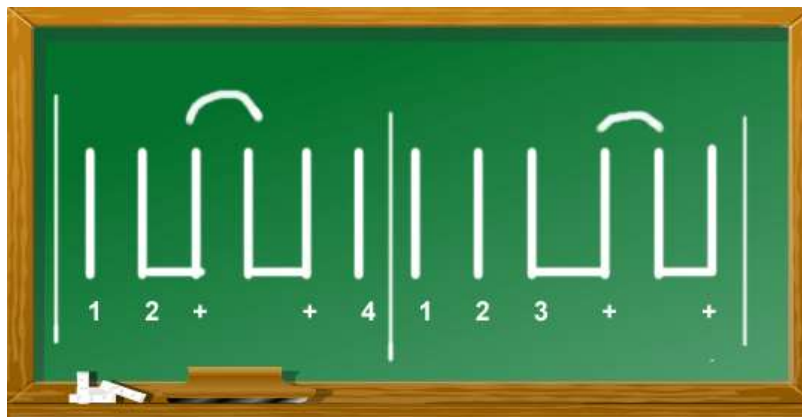
Let's take a break, and instead of continuing along this step by step description, let's take a look at where we're going, because from here it is more of a *mix 'n' match* than a *step by step*.

The desired end result is that your student(s) can clap and simultaneously recite the beat or part thereof that each note occupies in the group/measure/bar, for example:



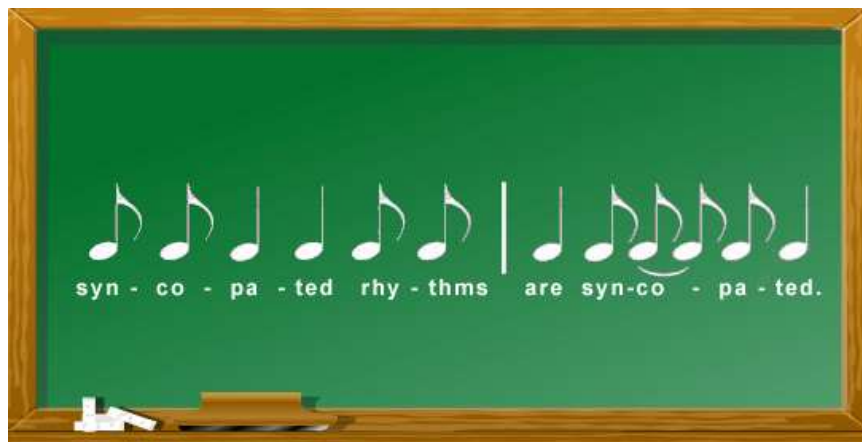
where the plus sign (+) is voiced 'and';

eventually working toward syncopated² patterns, for example:



² rhythm characterized by displaced beats or accents so that the strong beats are weak and vice versa.

and then to reading notes:



When to start using 1+ 2+ instead of Tee & Tah, when to put note heads on the Tees and Tahs, when to add a Tee not connected to its counterpart, when to introduce the tie³, is up to you.

At your discretion, try a couple patterns using the 1 + 2+ and then go back to Tees and Tahs. Ask your students to just clap, just Tee and Tah, just recite the parts of the beat, then clap and Tee and Tah ... you get the idea; mix and match.

The more the students are at the board running this, the better.

Two words of warning:

- 1) Chances are good that your students are also learning fractions. Music math makes a lot of sense in isolation. However, because so many of the terms used are math terms, e.g. 'quarter', 'half' 'eighth', trying to sort through both 'math math' and 'music math' in the same day can make anyone confused; (*a quarter note gets one and an eighth note gets half???*) For this and other reasons, start with, and relate all the other types of notes to, the **Whole Note**.

*Without declaring the number of beats for which a whole note lasts, introduce the concept that a **Half Note** lasts half as long as a whole note (as a Tee lasts half as long as a Tah) and then that a **Quarter Note** lasts half as long as a half note, or 1/4th as long as a whole note.*

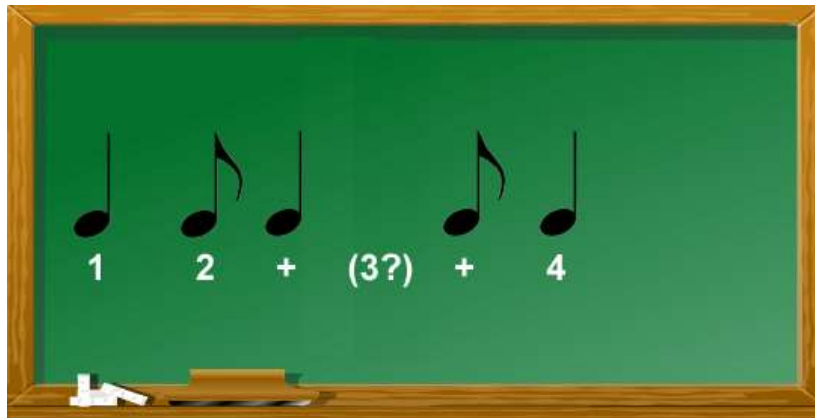
(It is important to remember that a quarter note does not always last for one beat! Introducing a whole note as lasting 4 beats, a half as lasting 2 beats, and a quarter lasting 1 beat can cause your students to incorrectly pigeon-hole specific note values to note types, which will cause unnecessary confusion when faced with tunes in meters other than common time⁴.)

³ a **tie** is a curved line connecting the heads of two notes of the same pitch, indicating that they are to be played as a single note with a duration equal to the sum of the individual notes' values.

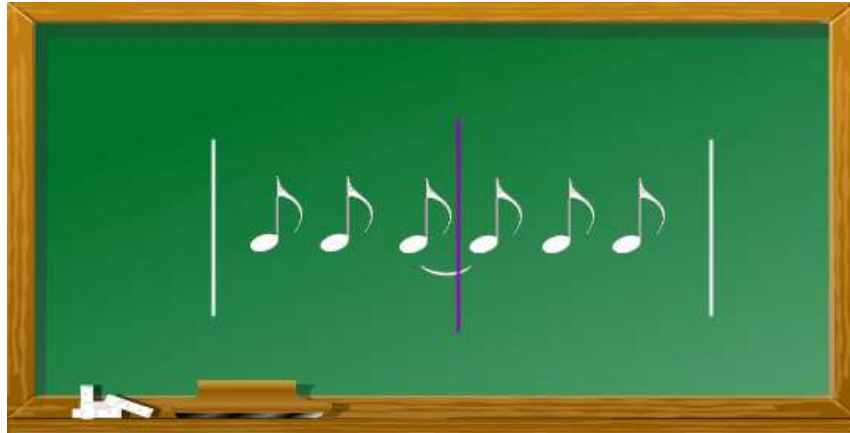
⁴ **Common time** is another way of notating and referring to the **4/4 time** signature.


- 2) Rhythms must be notated so that the measure can be visually subdivided. For practical purposes here, that means that in a common time measure, you must be able to see a note where beat 3 begins even if it is not played/sung. Said differently, you must be able to see two sets of two beats. Said differently, if a note lasting for more than a half beat begins on the + of beat 2, it must be notated using a tie.

The top chalkboard below displays correct notation. The notation on the lower chalkboard will sound the same when clapped, but the ambiguity of the third beat makes it difficult to read – an effect that is magnified as tempos quicken, especially when sight reading.



The same holds true with other meters. For example, in 6/8 time the strong beats are 1 and 4. The top chalkboard displays correct notation, with two clearly visible groups of 3 beats. The notation on the lower chalkboard will sound the same when clapped, but the ambiguity of beat 4 (the secondary pulse) makes it difficult to read and confusing to look at.⁵



⁵ For measures with an odd number of beats, e.g. 7/4, the visual subdivision would not be in the middle, but instead where it is felt. For example, the dance music at traditional Greek weddings and other functions is very often in 7/8, felt 12 12 123 and would be notated accordingly; 

... and now, the Time Signature

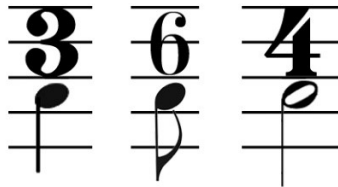
Having been careful up to this point to not assign beat values to note types, and instead having taught note values only in relation to each other, it is time to introduce the method by which those values are assigned: The Time Signature.

Though uttered gazillions of times over the millennia, let us avoid the phrase “Four beats in a measure and a quarter note gets one beat”. Instead begin with this:



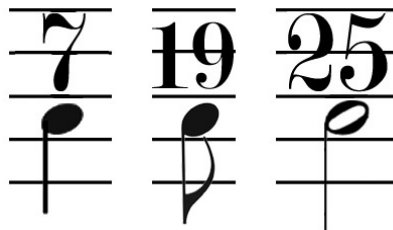
Like anything, time signatures are easy if you understand them. While the bottom 4 in a standard 4/4 time signature obviously indicates that a quarter note receives the beat to someone who ‘gets it’, it can be confusing to someone that is still learning; this alternate time signature is not. Your students have been putting beats in groups/measures/bars all along, so the top number will make sense to them and the note under it quickly and clearly (without any fractions) indicates what type of note lasts for one beat.

Introduce the time signatures below, drawing a few measures filled with the appropriate number of notes & beats in each.



Since your students did not learn that a half note gets two beats, understanding that a quarter note lasts for half a beat in 4/2 time will be no problem.

Ask your students to create their own time signatures and create a couple measures containing the correct number of beats/notes for each; do not restrict or be restricted to time signatures that you are apt to find in real life! The time signatures below are perfectly valid!



Use these alternate time signatures as long as they are useful, and then without saying too much – if anything - casually start switching to standard time signatures when your students are ready.

Some tunes in 'irregular' meters or time signatures for you to include in daily listening are:

- **Take 5** by Dave Brubeck – The classic 5/4 tune.
- **First Circle** by Pat Metheny – This amazing piece changes meter frequently but is primarily in 11/4.
- **Pussywiggle Stomp** by Don Ellis – This 7/4 piece is a calm change for Don Ellis who frequently composed in meters such as 33/8 and 11/16.
- **J'aime** by Riff Cohen - This piece is in a North African 6/4 rhythm.

Scales and Chords

One of the websites posted by us at Kokopelli Press is <https://namethatchord.com>. It provides a thorough, albeit concise, excursion through the construction of scales and chords. The lessons are self-guided and there is a one or two-player *Jeopardy*-style game to test your students' knowledge