**The most basic, raw component of music is the**[**Note**](http://en.wikipedia.org/wiki/Note)**.** Notes move vertically and horizontally in space. Vertically, notes move up and down in various intervals of [**Pitch**](http://en.wikipedia.org/wiki/Pitch_(music)). Horizontally notes move forward in various intervals of time (**Rhythm**).

The smallest pitch interval in all music in the western hemisphere (Americas, Europe, etc) is the **half-step**, **or half-tone**. Far-east forms of music use a quarter-tone system – which to our ‘western hemisphere tuned ears’ can sound out of tune, but actually results in beautiful music with subtle nuances.

Sequences of musical pitches result in melodies, **Scales**, modes, and arpeggios. Clusters of musical pitches result in **Chords**. Playing every half-tone sequentially up or down is called a **Chromatic** scale. Begin anywhere on your instrument, and play every note (fret) up or down, and that’s it! Begin anywhere and play 12 of those in a row, and you have played every note in a Chromatic **Octave**. Thus, there are 12 half-steps to an octave – actually, note #13 is the same note name as note #1, just an octave higher. Continue past note 12 and you are playing the same note names an octave higher in pitch.

If this is all new to you, take a second, breath, and digest it…

**Nearly all music is based on Diatonic scales.**There are seven notes to an octave in all diatonic scales. Obviously, there are many other types of scales – which we will eventually get to, but for now our discussions will be based on the major diatonic scale – protocol assumes the term **Major Scale**, so we’ll just call it that from now on.

**Hey, I thought you said a chromatic octave has twelve notes** – and now you’re saying an octave in a diatonic scale only has seven! What gives? Well, an octave is an octave – it is always the same distance apart from the first note to the last, no matter how many notes are in between. In other words, we are missing 5 notes from the chromatic scale when we play a diatonic scale.

**In actuality, there are only seven note names in all of music!** So, how do we get twelve notes in a chromatic octave? With **Sharps** and **Flats**. A sharp raises a note by a half-step. A flat lowers a note by a half step. Below is a diatonic scale beginning on C compared to a Chromatic scale starting on C:

1 2 3 4 5 6 7 8

C D E F G A B C

1 2 3 4 5 6 7 8

C C# D D# E F F# G G# A A# B C

Since a flat lowers a note by a half-step, C#/Db, D#/Eb, F#/Gb, G#/Ab, and A#/Bb are all the same notes.

**Music scales proceed up the alphabet in sequence**, regardless of where they start. However, the C diatonic scale is the only one that contains all **Naturals** – meaning no sharps or flats – as you can see above why. E to F and B to C do not have a half-step interval in between, thus there is really no such thing as E# / Fb, or B# / Cb. Technically, some music needs to be written that way, but for purposes of discussion on this blog we will assume E to F and B to C are natural half steps.

All white keys on the piano are Natural notes – meaning sharp or flat is not part of their name. In contrast, all black keys on the piano have either sharp and/or flat as part of their name. Thus, if you played only the white keys starting on C, you would be playing a C diatonic major scale, otherwise simply known as a C scale.

In our next installment, we will explain why that is, and begin building on this knowledge. For now, go back and look at all the words in **Bold** – you should be able to define those up to this point – so again, if any of this is new to you – digest it before moving on – because the pace will pick up next time!

Musically Yours,

Al