Hello Guitar©

Let's Get Started with the Basics!

Robert H. Johnston


HELLO GUITAR©

Introduction

Hello Guitar is designed to provide the tools needed to help you take your skills to the next level and beyond. This work is based on the philosophy that, the more you get to know your guitar, the more enjoyable playing experience you'll have.

Hello Guitar takes you step-by-step through each key, locating scale patterns, how to construct chords, and highlights unique chord progressions that you can explore. In turn, this will provide you with knowledge of the foundations that all music is based on, which, of course, includes everything from classical to punk rock!

Part one of this series is intended for guitarists of all levels. For the beginner, it may serve as a worthwhile introduction to guitar as well as a comprehensive reference book (best used in addition to proper instruction). For the intermediate to advanced player, it was also my intention to both open doors and provide refreshing warm-up exercises to stimulate the mind as well as the fingers.

Feel free to skim through this book, taking from it only what you'll need and only as you need it. The valuable tools presented to you will be with you for a long time to come. Whether you just want to work through some truly stimulating exercises, brush-up on theory, or learn to improvise in various modes, may you enjoy this book as much as I've had the pleasure of sharing it.

- Robert H. Johnston
2009

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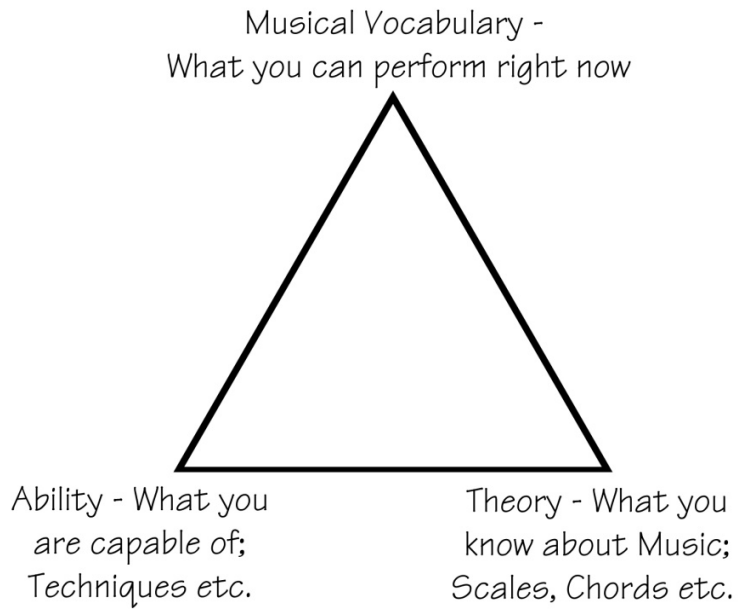
Let's Talk Goals!

I'm going to share with you one of the most powerful exercises for learning guitar that I've ever come across. In fact, it's so effective, that you won't even need your guitar for this exercise. So put the guitar down and let's get started.

Take a moment to imagine your learning the guitar like the three bases of a pyramid. The stronger each base, the more stable your foundation is, and the better guitar player you'll be.



First, there is **theory**. In other words, what you know about music. Your theoretical knowledge of music includes things like how to construct scales and chords and understand how music as a whole fits together.

Second, there is your **ability**; your technical ability of the guitar, which includes things like hand-eye coordination, overall sense of rhythm, specific techniques like hammer-ons, pull-offs, bending etc. In other words, what your fingers can do. You can also think of this base as being like your potential.

Finally, there is something I like to refer to as "**musical vocabulary**", which is what you have rehearsed well enough to the point where, if you were asked to play something right now, you could just play it without hesitation. As you progress, this could be as complex as entire songs, or as simple as single riffs or chord progressions. It's kind of like your repertoire.

I've had many people who have been trying to learn to play the guitar that have come to me over the years explaining that it felt like they'd hit a barrier in their progress that they just couldn't get past. They described it as a feeling of being stuck in a rut where they tend to play the same things over and over again without making much progress. It's important to be honest; we've all been there.

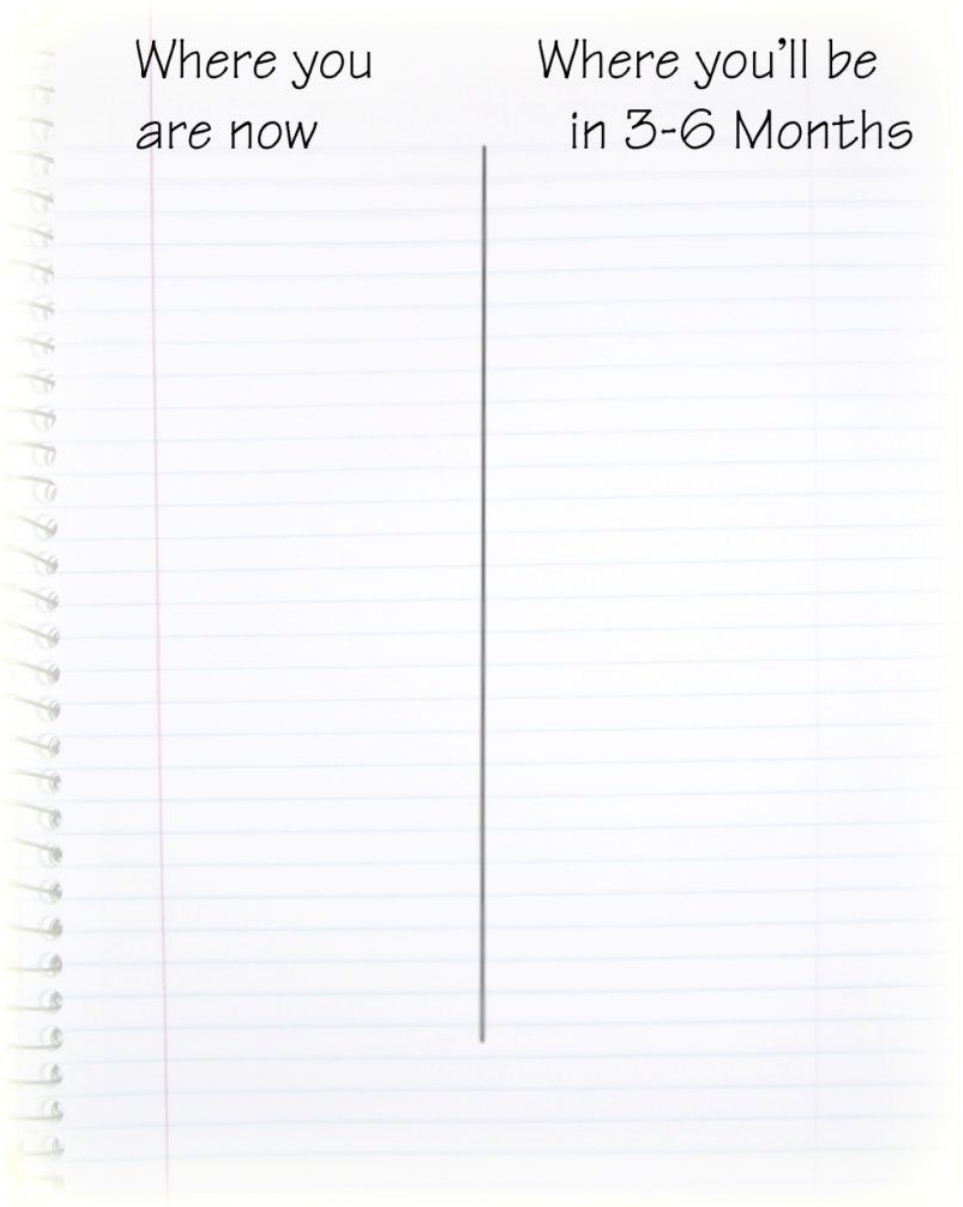
What I've noticed is that when people feel stuck it's because they have blind spots in one or more of these three areas. Over the years, I've helped people tackle a lot of different cases of this. Here are a few common symptoms;

- knowing a handful of chords, but not knowing what those chords are
- playing by ear but have trouble branching out into fresh new material.
- being able to play some songs, but not very well
- knowing all the theory stuff but when asked to play something freezing up and not being able to play anything at all
- playing well enough to impress your friends but running out of steam after a few short minutes
- being able to play some sound-alike and/or copy-cat riffs but not understanding music well enough to take your playing to the next level or make it your own

So here's a little something that I want you to do. Take a sheet of paper and divide it into three two columns. On the top of the left column, I want you to write "where I am now" and on the top of the right column, right "where I will be in 3-6 months". Just do it!

In both columns, take the time to describe in detail where you are now in each of these three areas of theory, ability, and musical vocabulary, and where you want to be in 3-6 months.

Make sure that your list is as detailed, balanced, goal-oriented, honest, and realistic as possible, because, when you're done, you'll want to place it on the wall, on the fridge, or some other place where you are guaranteed to see it every day to remind yourself of your goals. With each goal, write a list of steps to help you achieve it. This will help to motivate you and give you a powerful new sense of direction. Don't be surprised if in 3-6 months, you've surpassed what you thought you were capable of!



Here's the main problem that we face in the music world when it comes to guitar instruction; Up until now, there has never been a guitar program that was in-depth and comprehensive enough to teach you how learn to play the guitar from A to Z. In fact, most other guitar programs actually stunt your learning because they have those blind spots we mentioned earlier, holding you back from where you want to go.

It's this philosophy that makes the Hello Guitar Method so unique and revolutionary.

Warm-Up Properly

It's important to make sure you warm up properly before you begin playing. This will not only make playing easier, it will also reduce the risk of developing a repetitive motion injury such as tendonitis.

Here are a few tips on warming up;

- If your fingers feel stiff, especially in the mornings, try running your hands under warm water for a minute to loosen up the joints.
- Don't try to stretch your hands backwards, as this puts too much strain on the wrist.
- Do some shoulder circles and other similar exercises to get the blood flowing to your arms, forearms, and hands.
- Give yourself a quick hand massage to loosen up your fingers.
- Wiggle your fingers and shake your hands for a couple of minutes to get them moving.
- Don't try to play fast or difficult material as soon as you pick up the guitar. Start off by warming up with something easy. This is a sure fire way to avoid injury.
- Warm up your mind as well as your fingers. Get your head into the music by playing through all the chords in a key and/or some scales. – Especially those keys and scales that apply to the songs you'll be working on.

While some of these exercises may sound like things only old fuddy-duddies do, warming up properly and taking care of the only two hands you have will insure that you'll be able to enjoy playing guitar for a lifetime, which is a priority for all ages.

Create a Daily Practice Routine

Many students have asked me how much they should practice. I enjoy telling them "six hours each day" just to see their expression. While this always gets a laugh, there is a lot of truth to the fact that the more you put in the more you get out.

I understand that not everybody can dedicate 100% of their time to learning guitar, so here's a few tips on how to develop a good practice routine to insure you'll make steady progress and benefit the most from your guitar learning experience;

- Find a quiet spot at home where you can be free of distraction.
- Never practice watching TV. Just don't!
- Get a folder or binder to keep all of your music organized
- Make sure you have everything you need; including a music stand. Make a checklist.

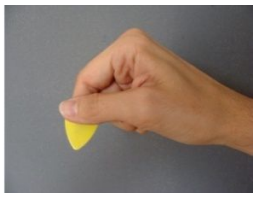
- Keep your guitar out on a guitar stand. If you see it out, it'll be easier for you to just pick it up and play it, and you'll want to practice more frequently.
- If you don't think you have time, make time! - even if it means you have to get up a little earlier, or sacrifice some of your couch potato time. Just remember that Jimi Hendrix used to practice for three hours before he would even go on stage, Steve Vai practices six hours a day when he's getting ready to go on tour, and yours truly here has been known to put in some six and eight hour days as well. So you'll have my deepest sympathy (I'm being sarcastic, of course). Just do it!
- Try to practice twice a day. Ideally, a short session (30 min) in the morning before you start your day, and a longer session (1 hr) at night before bed. Breaking it up like this allows you to keep the guitar on your mind around the clock.
- Remember that having a daily practice routine, may take a little organizing at first, but will become like second nature once you get past the first week or two.
- Challenge yourself to learn more and get better. While playing just to entertain yourself can be fun, also make sure that you're pushing yourself to move forward. Getting out of your comfort zone will insure that you won't get stuck playing the same stuff over and over again.
- Be positive! Don't beat yourself up or try to convince yourself of how much you "suck" when you're just trying to motivate yourself. This gets fatiguing and can burn you out really quickly. It's not worth it and there are better ways to push and motivate yourself.
- Reward yourself for a good practice session, and take time to imagine how good it will be in the near future when you are able to reach your goals.
- Get an accountability buddy. If you don't have too many friends that are seriously into guitar, get a close friend or family member to discuss your progress with and help hold you accountable. Being able to discuss your progress and goals makes them more real.
- Focus on one thing at a time until you've absorbed it as much as possible. The more your attention span jumps around, the less likely you'll be to get out of your comfort zone.
- Make sure to always end your practice session on a positive note. Never put the guitar down just because you're frustrated.. Make sure you feel the satisfaction of improving some aspect of what you've been working on before you put it down, no matter how small; even if it's just a simple chord progression or short riff within a song. This will insure that you'll always look forward to picking up the guitar on the next occasion.

It's important to remember that music is an extension of emotions. I've seen people clumsily bang on the guitar, when what they're actually expressing, on a subconscious level is their frustration at not being able to play well. So the more you improve on guitar the more emotion you'll be able to express other than just frustration. Doesn't that sound worth it?

A Note for Newbies

This book is intended to be ideal for people who already have some experience with the guitar who are ready to reach the next level. However, I wouldn't want this to be a barrier that would keep an absolute newbie beginner from benefiting from the resources this book has to offer. So, just in case you are a newbie, I'll take a moment to address some important things you'll need to remember throughout each exercise that will help you to advance more smoothly.

How to Hold the Pick

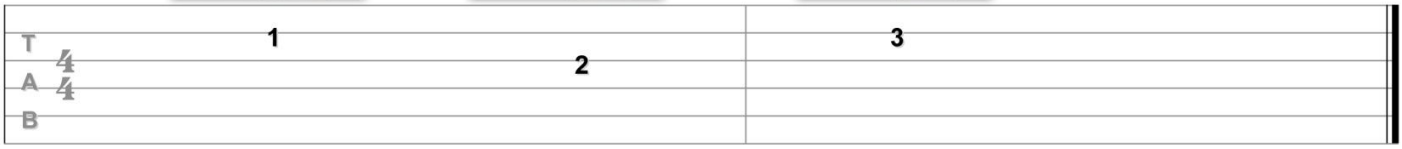



To hold the pick so that you get maximum control and accuracy, place it in line with your index finger and make a cross with your thumb. One of the many benefits of this is that you won't have to hold the pick as tightly, yet it won't fall out of your hand as easily.

How to Read Guitar Music

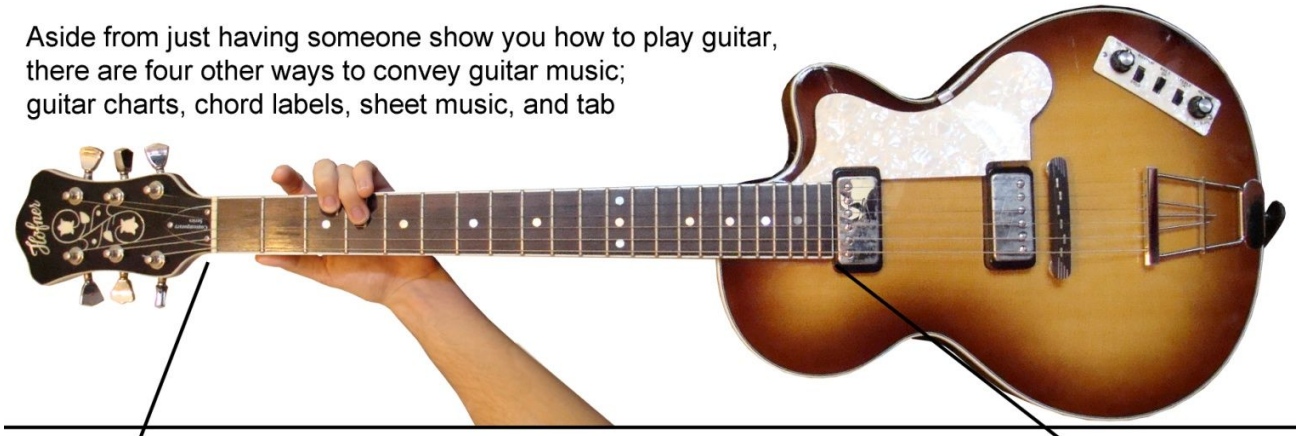
Although the exercises are written out in both traditional sheet music and Tab, (my music software just includes both automatically), you won't necessarily have to read sheet music in order to follow along with the exercises in the program. "Tab" is short for "Table of Numbers", and is an age-old system invented by renaissance lute players. The numbers on each string tell you which fret to place your fingers on. Guitar tabs are read upside-down as if you are looking at the guitar while holding it. So the low E string is represented by the bottom line and the high E string is represented by the top line and etc**. (CD1 – Track 2)**



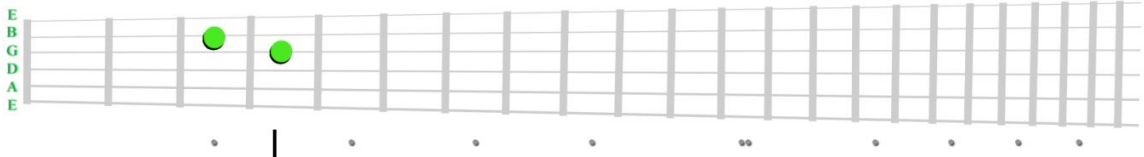


Here's an illustration of the various forms of guitar notation**. (CD1 – Track 3)**

Aside from just having someone show you how to play guitar, there are four other ways to convey guitar music; guitar charts, chord labels, sheet music, and tab

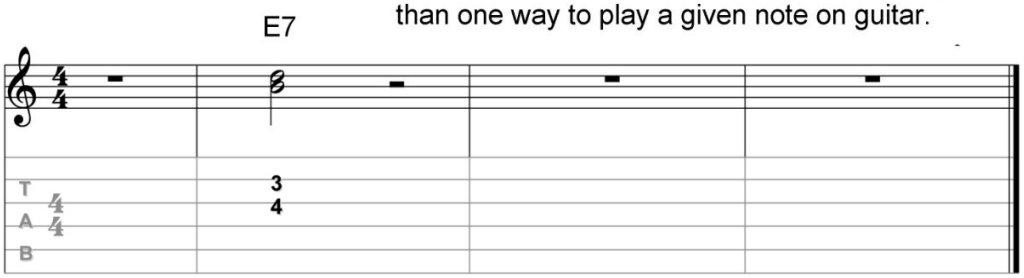


Guitar charts are read upside down as if you were looking at the guitar while holding it. They illustrate which frets to put your fingers on. While they can only illustrate one idea at a time, they are especially useful for learning chords.



Even the simplest song melody is based on a chord progression. Often, the names of chords are written above the sheet music, and sometimes as a substitute to sheet music. Knowing how to play even a handful of common chords makes it easier to strum along to a song. This strips down the music to it's bare essential elements, leaving a lot of room open for interpretation, which may or may not be preferable, as chord labels alone don't tell you what the melody or rhythm should be, and there is always more than one way to play each chord.

Traditional sheet music notates what pitches are to be played, as well as what the rhythm will be. This is vital information, however, it does have one critical drawback; there is often more than one way to play a given note on guitar.

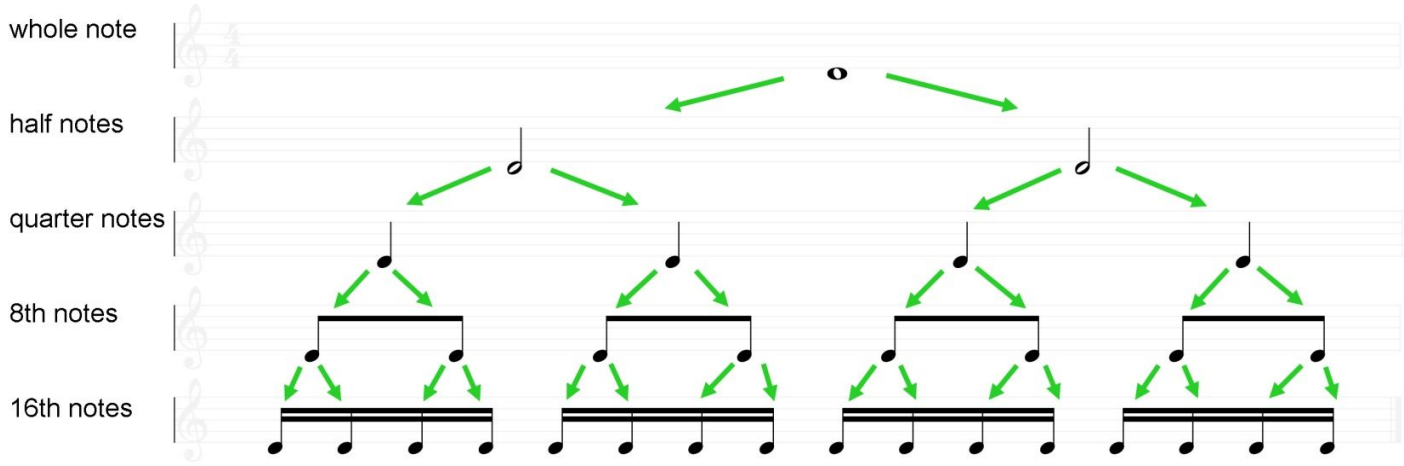


"Tab", short for "table of numbers", tells you which frets to put your fingers on, and in what sequence (read from left to right). Like guitar charts, it is also read upside down, as if you were looking at the guitar while holding it. Tab is useful because there is often more than one way to play a note on the guitar, so it helps to specify which fingering is intended. Tab is the most popular form of guitar music notation. While it is easier to read than traditional musical notation, it's drawbacks are that it does not tell you which notes the numbers represent nor what the rhythm should be, which only traditional music notation can do.

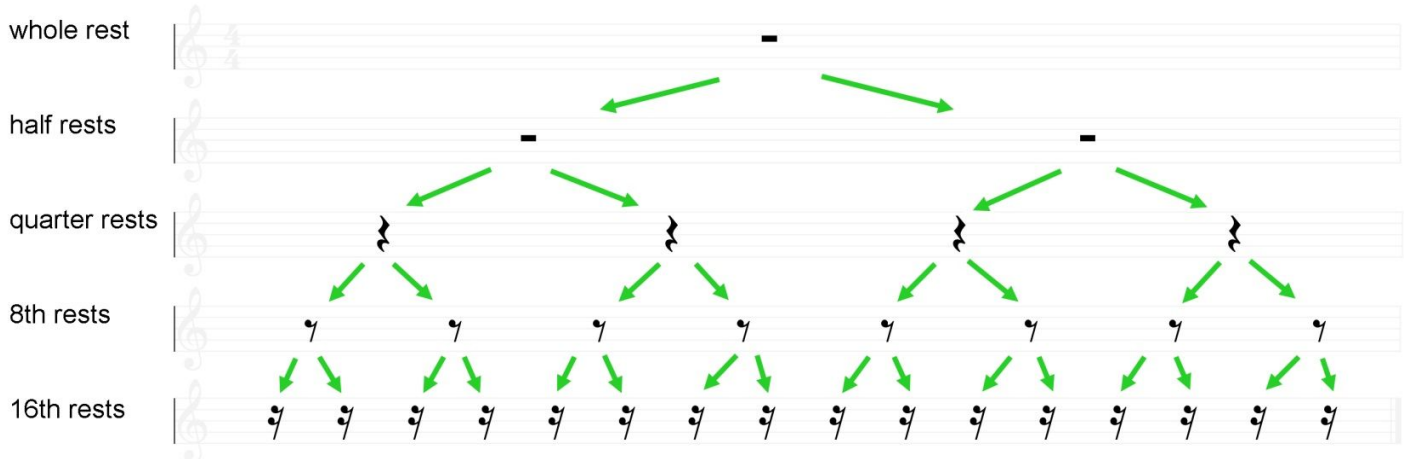
The most effective guitar method is one that can give you all of these elements.

It may take you years to fully be able to read music and develop a keen sense of rhythm (In fact, those are topics for a whole other book or two), however, this should be no excuse for taking the first step.

It's extremely beneficial just having a general idea of how fast or slow notes are supposed to be. Whole notes are typically the longest and slowest notes used in music, while sixteenth notes are among the shortest and fastest notes used in music. In other words, sixteen sixteenth notes can be played in the time it takes to play just one whole note! So when you look at the traditional music, don't be intimidated. Just think to yourself, "whole note = really slow, half note = kind of slow, quarter note = not too short or long, 8th note = fast, 16th note = pretty dog gone fast!", and you'll be able to hang in there.

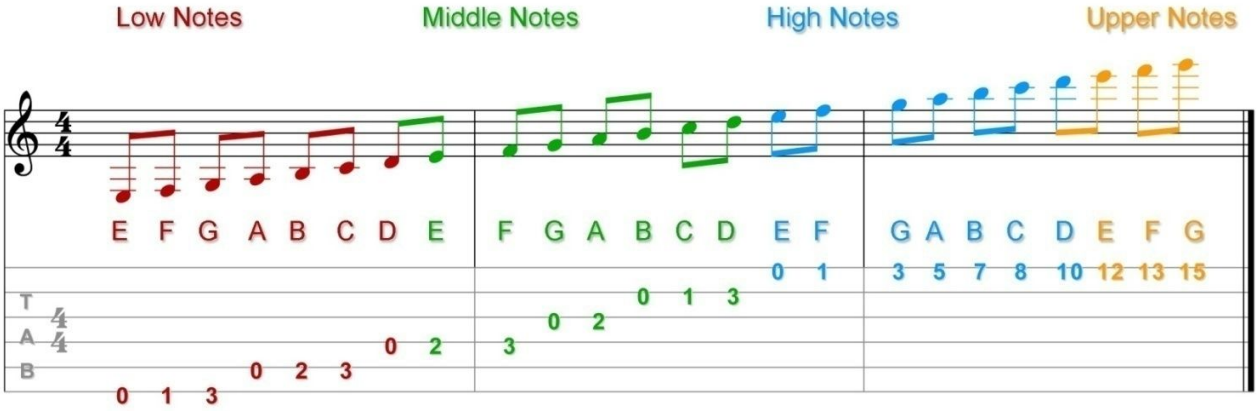


Rests are structured the similarly. It takes sixteen sixteenth note rests to take up the same amount of space as one whole note rest. Rests create pauses in the music, breaking it up, making it more rhythmic and interesting, and keeping it from becoming monotonous. – Like a lot of situations in life, sometimes it's what you *don't* say that matters!



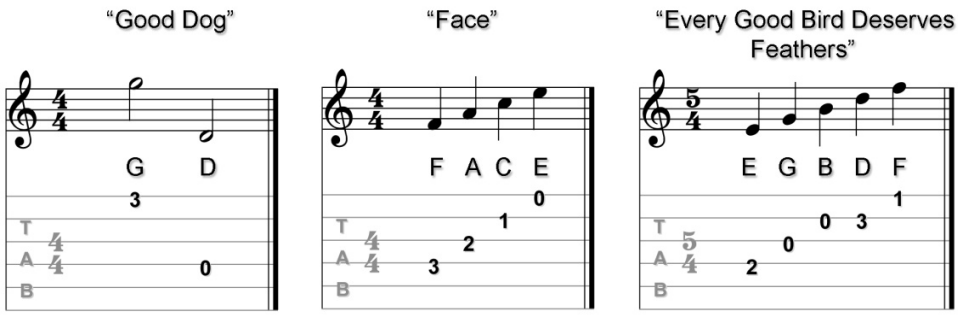
Reading the Notes on the Music Staff

Only the letters of the alphabet from A through G are used in music. So you'll never encounter a "Y sharp" note or a "Z flat" chord. Just A through G – that's it. Obviously there are a lot more notes than just these seven letters because of their octaves and all the sharps and flats in between. So it really helps to be able to break these up into four groups, spanning the entire four octave range of the guitar; low notes, middle notes, high notes, and upper notes. Here's a quick reference guide for being able to recognize them on the music staff. **(CD1 – Track4)**



There are five lines that make up the music staff, the same music staff that all other instruments use. In other words, traditional sheet music isn't unique to the guitar. So it's not as simple as just correlating each string to a line, as in tab, so don't let that confuse you.

As far as reading music is concerned, there are three basic groups of notes on the music staff that you can learn to begin recognizing; top and bottom notes, "FACE" notes, and "Line" notes. Top and bottom notes sit just above and below the music staff. "FACE" notes are the four notes located in between the spaces of the five lines of the music staff. "Line" notes are the five notes located on each line of the music staff. Here's what all this mumbo jumbo looks like, along with silly little sayings to help you remember. **(CD1 – Track5)**



Other than that, just refer to the quick reference chart above for the low and high notes beyond the staff, and you'll be on your way!

Develop Good Habits

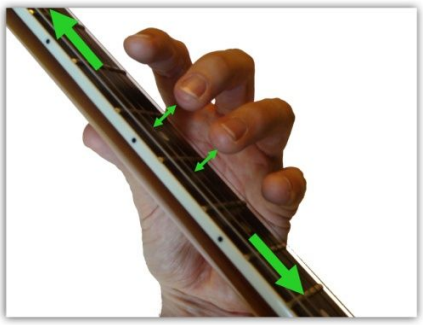
It's easier to play well if you have good habits. This is especially true for proper fret-hand technique. So in order to develop good habits, it's important to remember some of the little things to watch out for.

Float Just above the strings

The key to smooth guitar playing is being able to be quick on the attack. In order to do this, you'll need to make sure that your fingers are no more than about a centimetre to a half an inch away from the fret board at any given time.

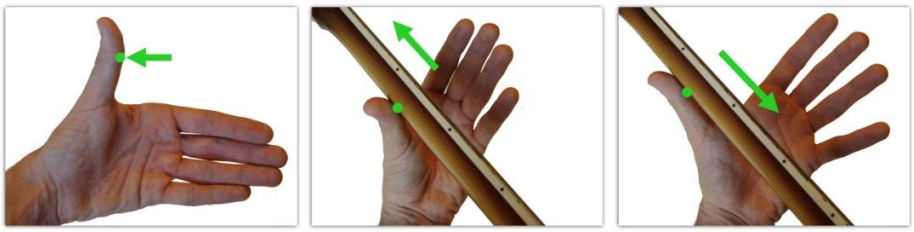
Never shy your fingers too far away from the fret board or stow away your fingers by tucking them into your palm. These are both very common bad habits that can severely hamper your speed.

As an experiment, hold your fingers close to the strings without touching and float up and down the neck several times. – Remember this sensation, because that's what it feels like to play guitar properly.



Use Your Thumb Properly

Never bend your thumb at the joint. Keep your thumb straight at all times, pivoting with the joint of the thumb for maximum mobility.



Beware of what I call “clothes hanger thumb”, which is what happens when your thumb hooks like a cloths hanger over the top of the guitar neck. This is what happens when you are trying to support using the palm of your hand rather than the thumb, and it can severely hamper your mobility and dexterity, making it harder to both press down and reach notes.

There are a few exceptions to this rule, such as if you have unusually long fingers or if you’re into various styles of roots music that requires thumb fretting. But in general, it’s not considered proper technique.

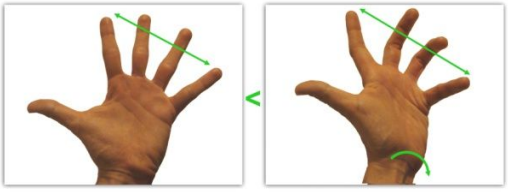
If you’re barring and or putting more pressure on the lighter gauge strings, you may want to lower your thumb on the neck to compensate, otherwise keep it somewhere in the middle on the back of the fret board.

Keep Your Hand Arched

Arch your hand slightly from the wrist all the way to your fingertips. This should mimic the natural arch your wrist makes when you lift your relaxed hand parallel to the ground. Always avoid putting too much strain on the wrist such as bending your wrist backwards or hunching it too far forwards at too much of an angle. If you are standing while playing, adjust your strap so that your hand can maintain a proper arch.

Press down with either the tip of your fingers or bar as needed, but avoid the ambiguous grey zone in between these two actions. Conversely, never hyperextend your finger joints. Your hand can always reach what is needed while maintaining a proper arch.

Angle your hand to reach further



Angling your hand by turning your wrist inward slightly allows you to reach farther than just trying to spread your fingers apart. Controlling the rotation of your

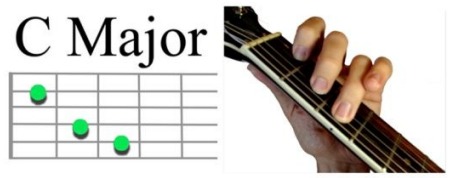
wrist is the crucial difference between your everyday run-of-the-mill ham-fisted player and a player who can create the illusion of having spider fingers.

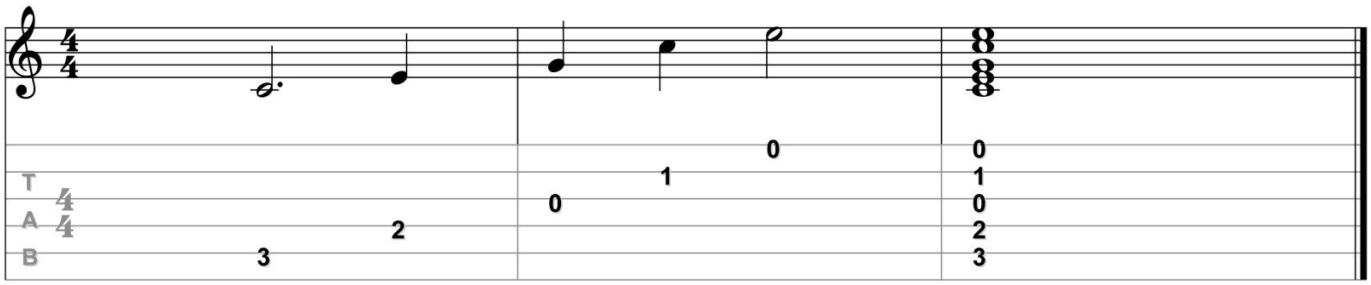
The Millimetre Rule

When you're pressing down on a note, you'll want the distance from your fingernail to the string above to be about a millimetre. A millimetre is roughly the width of a medium-sized pick. If the space between your fingernail and the string above is less than a millimetre, there will be a tendency to create a buzzing fret noise as it rattles too closely to your fingernail. If the distance is more than a millimetre, there will be a tendency to unintentionally mute the string below with the ball of your fingertip.

A good test for determining if you are abiding by the millimetre rule is to play the notes in a chord slowly one string at a time. If you hear any clipping, muffling, muting, or fret noise, chances are you need to re-evaluate the placement of a finger or two.

Try to play the C chord one note at a time and test yourself on this. **(CD1 – Track 6)**

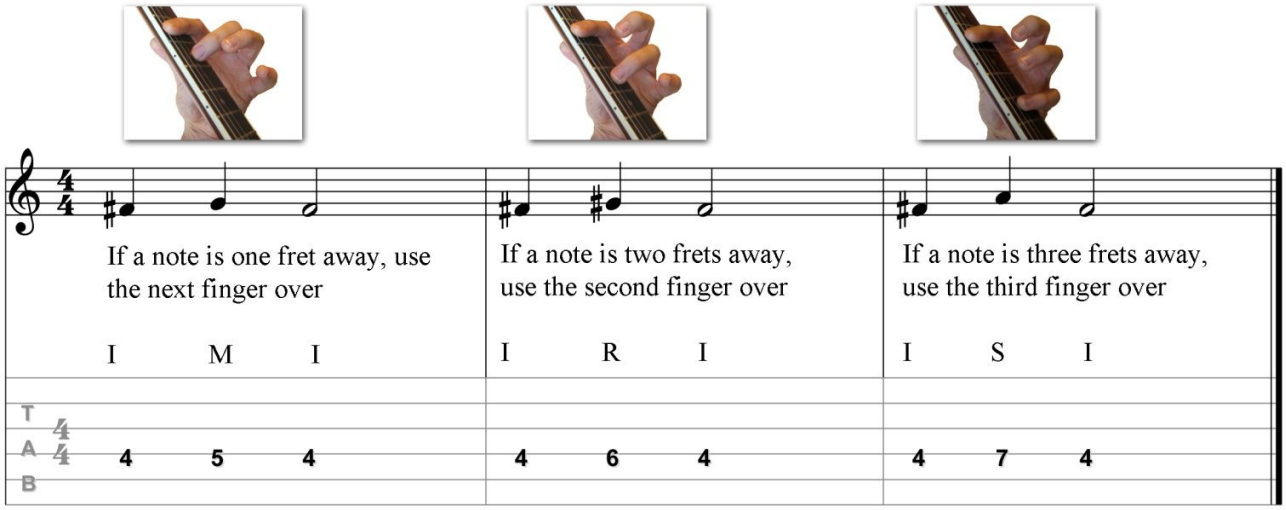




If you find that you are getting unwanted muting or fret noise as a result of breaking the millimetre rule, lift off your finger and reset it on the string higher or lower as needed. Make sure that you are lifting off and resetting your finger as opposed to bending the string slightly to avoid contact, as this can change the pitch slightly and cause your guitar to sound out of tune.

Use One Finger per Fret

The ideal technique for fretting notes is to assign one finger per fret for every four fret reach. For example, if you are playing a chord or melody within the first four frets, your index finger will always be used for notes on the first fret, your middle finger for notes on the second fret, your ring finger for notes on the third fret, and your small finger for notes on the fourth fret. **(CD1 – Track 7)**



If you're playing along and the music calls for a note that is located one fret away, use the finger that is one finger away. If the music calls for a note that located three frets away, use the finger that is three fingers away, etc.

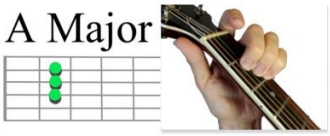
Natural Stack

The only exception to the one finger per fret rule is when the music calls for more than one note to be played on the same fret and barring isn't an option. This often happens when playing chords. In this case, you'll need to use the next finger over. When you have multiple fingers on a fret, they will always be stacked in a certain prioritized order, regardless of which of the four fingers you're using. I call this prioritized order "natural stack" because you are stacking your fingers on top of one another in a way that feels the most natural.

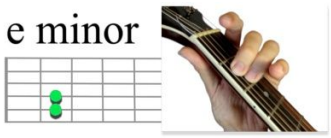
Regardless if you are stacking just two fingers or all four, and regardless if you are skipping strings in between or not, the priority always stacks up like this;

- Index over middle, ring, and small
- Middle over ring and small.
- Ring over small

Here are a few common examples of the natural stack principle in action. **(CD1 – Track 8)**



- The A Major chord, in which the middle finger is stacked over the ring with the small finger on bottom



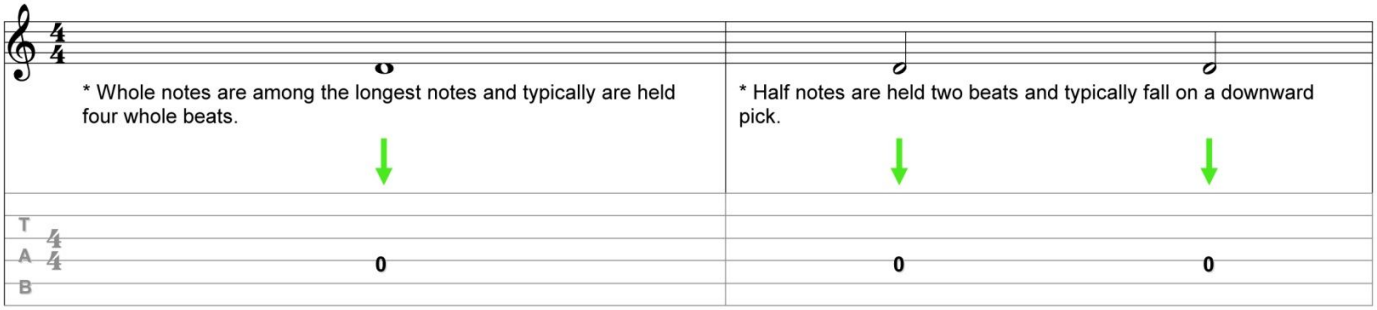
- The e minor (and E Major) chord, in which the middle finger is stacked over the ring finger

- The G Major chord, in which the middle finger is stacked over the ring with the small finger on bottom, even though three strings are skipped in between

So if you're playing along and playing more than one note on a fret and something just doesn't feel right, chances are you're breaking the natural stack.

Make sure to alternate your picking!

The tendency for beginners is to only pluck downwards. However, this doesn't do you any favours. Alternating your picking, i.e. picking/strumming both up and down is necessary for a couple of reasons. First off, it cuts your effort in half and makes your playing smoother and more efficient, which allows you to have more control. Secondly, it helps your sense of rhythm. If your hand is already moving up and down with the beat, it will be easier for you to stay in tempo and maintain a sense of rhythm. Typically, you'll alternate your picking every other note, although there may be some exceptions to the rule like; long notes, rests, preferring to maintain consistency of tone instead & etc. In the next exercise, we'll cover some examples of alternating, using the open D string. **(CD1 – Track 9)**


* Whole notes are among the longest notes and typically are held four whole beats.
* Half notes are held two beats and typically fall on a downward pick.
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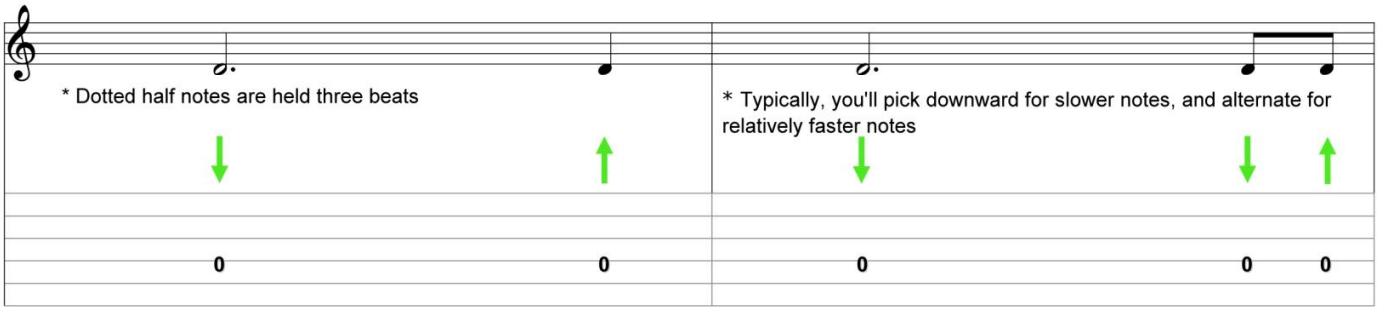
* Dotted half notes are held three beats
* Typically, you'll pick downward for slower notes, and alternate for relatively faster notes
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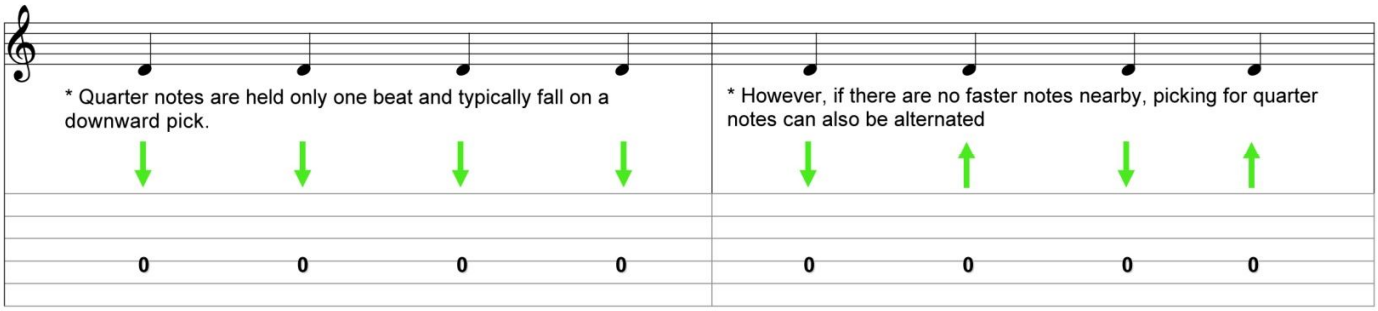
* Quarter notes are held only one beat and typically fall on a downward pick.
* However, if there are no faster notes nearby, picking for quarter notes can also be alternated
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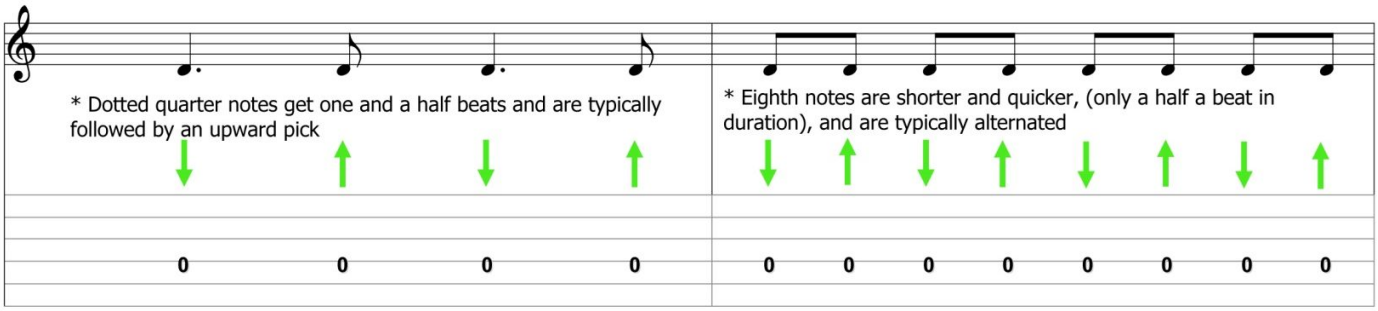
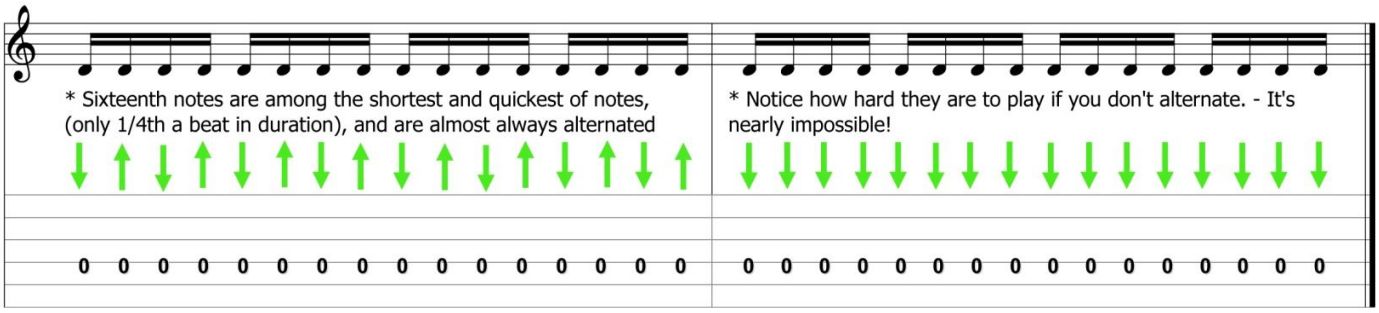
0 0 0 0


* Dotted quarter notes get one and a half beats and are typically followed by an upward pick
* Eighth notes are shorter and quicker, (only a half a beat in duration), and are typically alternated
0 0 0 0
0 0 0 0 0 0 0 0


* Sixteenth notes are among the shortest and quickest of notes, (only 1/4th a beat in duration), and are almost always alternated
* Notice how hard they are to play if you don't alternate. - It's nearly impossible!
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0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

A 440

I remember one afternoon, when I was still in school, walking into a back room of the music department to find two science students eagerly tinkering with a high-powered strobe light and an upright bass. With the exception of the brightly flickering strobe light, the room was pitch dark.

One guy plucked the A string and the booming bass note filled the room. To my amazement, the string didn't appear to be vibrating at all, but rather, to be sitting perfectly still. I looked down at the strobe light. It was set at 440 hertz.

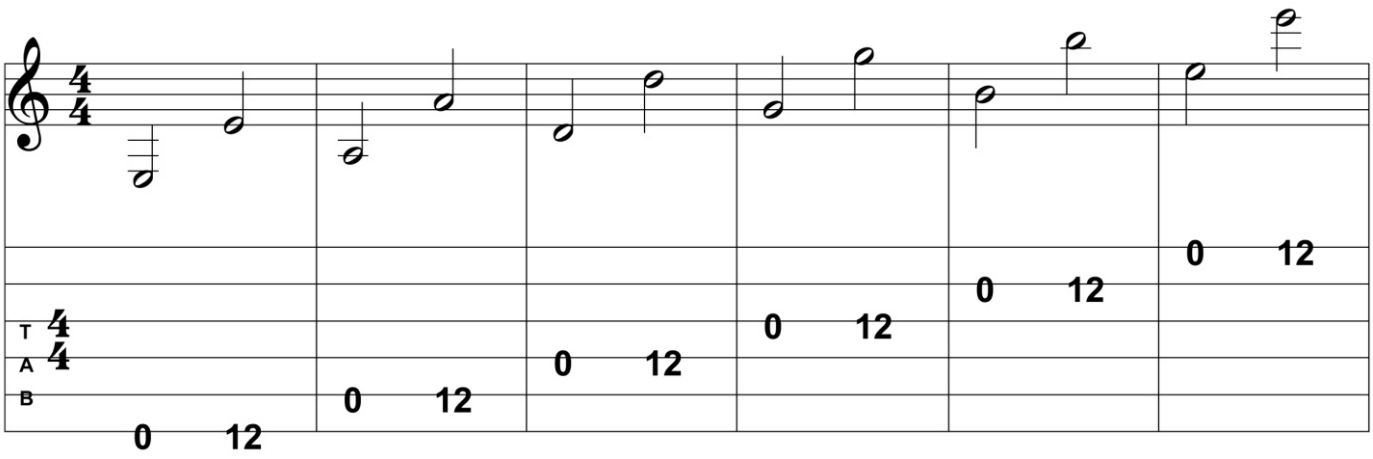
While the bassist plucked the ghostly-immobile note a few more times, the other student explained that the string appears to stand still when the strobe light is set to the same frequency as the vibrating string.

"Now watch this!" – The bassist played an A note one octave higher. Again, the string appeared to be sitting perfectly still. This time, they explained, it was because the string was being played at its half point, which yielded the same ghostly result.

The 12th Fret and Beyond

On the Guitar, the 12th fret (which typically has doubled dots) is the exact half point of each string and also the point where you can play one octave higher than the notes played upon each open string.

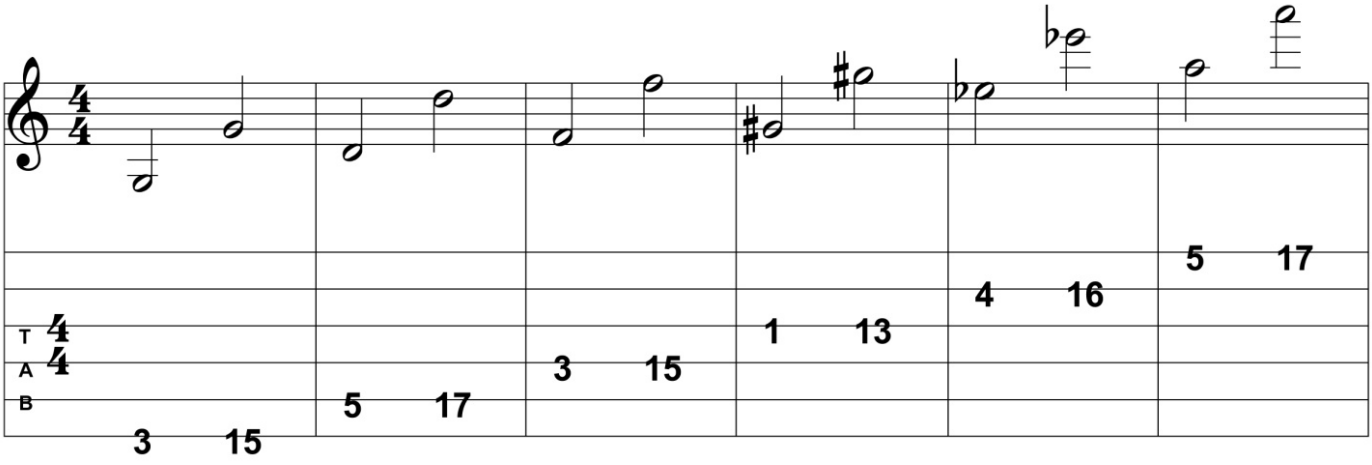
Exercise – the octaves of each of the open strings; E, A, D, G, B, and E **(CD1 – Track 10)**



You can also start on any note, move up 12 frets on the same string, and play the same note one octave higher. This technique can be used to quickly transpose musical phrases one octave range higher, such as for separating the range of rhythm guitar from lead, for example.

Exercise – finding octaves of random notes upon the same string; G, D, F,G#, E♭, and A

(CD1 – Track 11)

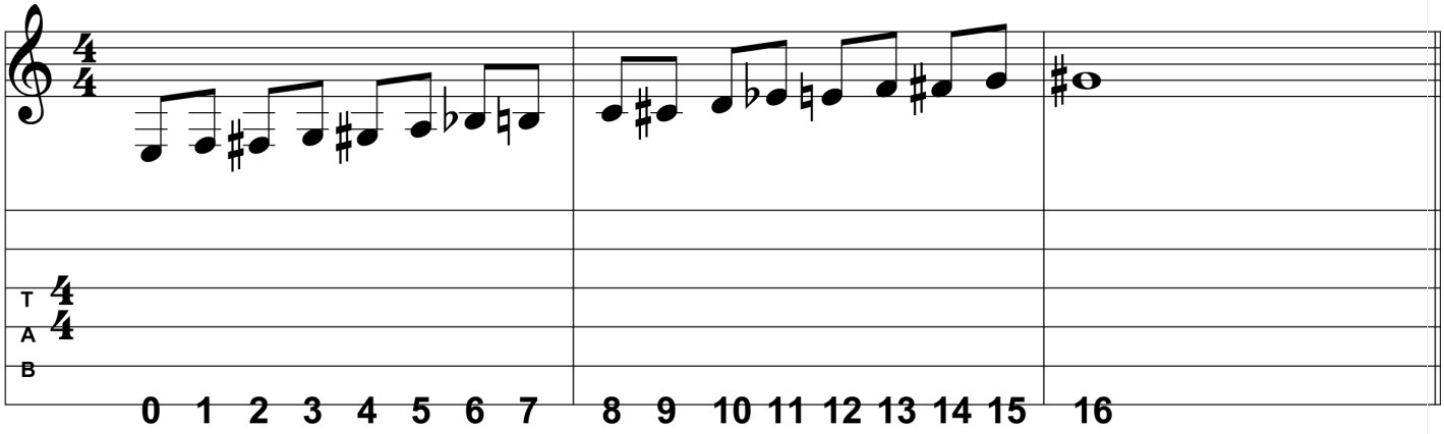


These twelve spaces represent the twelve notes of the chromatic scale, the scale consisting of twelve equal divisions, called “one-half step intervals”, between any given note and its octave. One-half step intervals are the smallest possible division between notes used in traditional western music.

In other words, there are only twelve notes. All other notes are octaves, either higher or lower, of these twelve notes. (And the note A is an A is an A, whether you’re talking about a given A, or the note 3 octaves above or two octaves below.)

It’s inspirational when you consider that all of the popular music you’ve ever heard is derived from only twelve notes, which includes everything from beautiful Mozart Arias to lightning-fast bebop solos, to classic rock n’ roll tunes.

Exercise 3 – becoming familiar with what the chromatic scale sounds like upon one string. Remember to practice alternating your picking. **(CD1 – Track 12)**

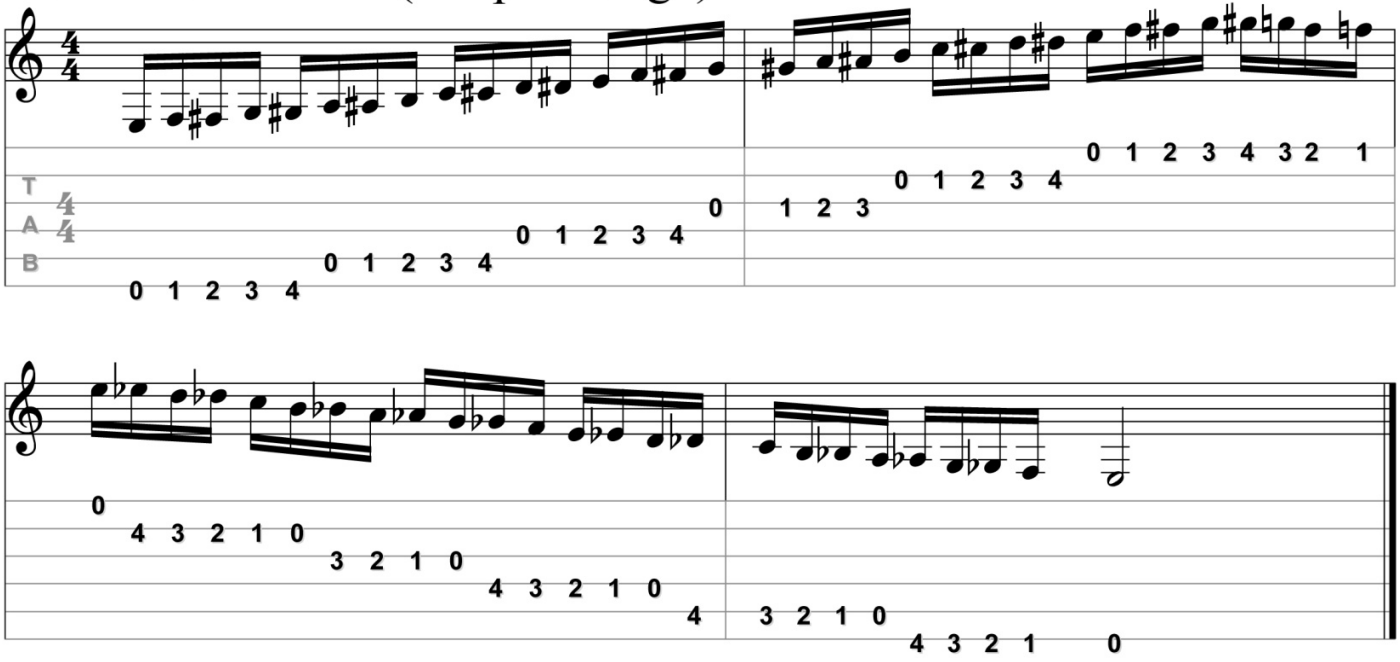


While this may make for a good ear-training exercise, it isn’t really all that practical to play the entire chromatic scale on one string alone. The entire chromatic scale can be played in two octaves within any five-fret span upon the neck; one of the primary foundations of this book series!

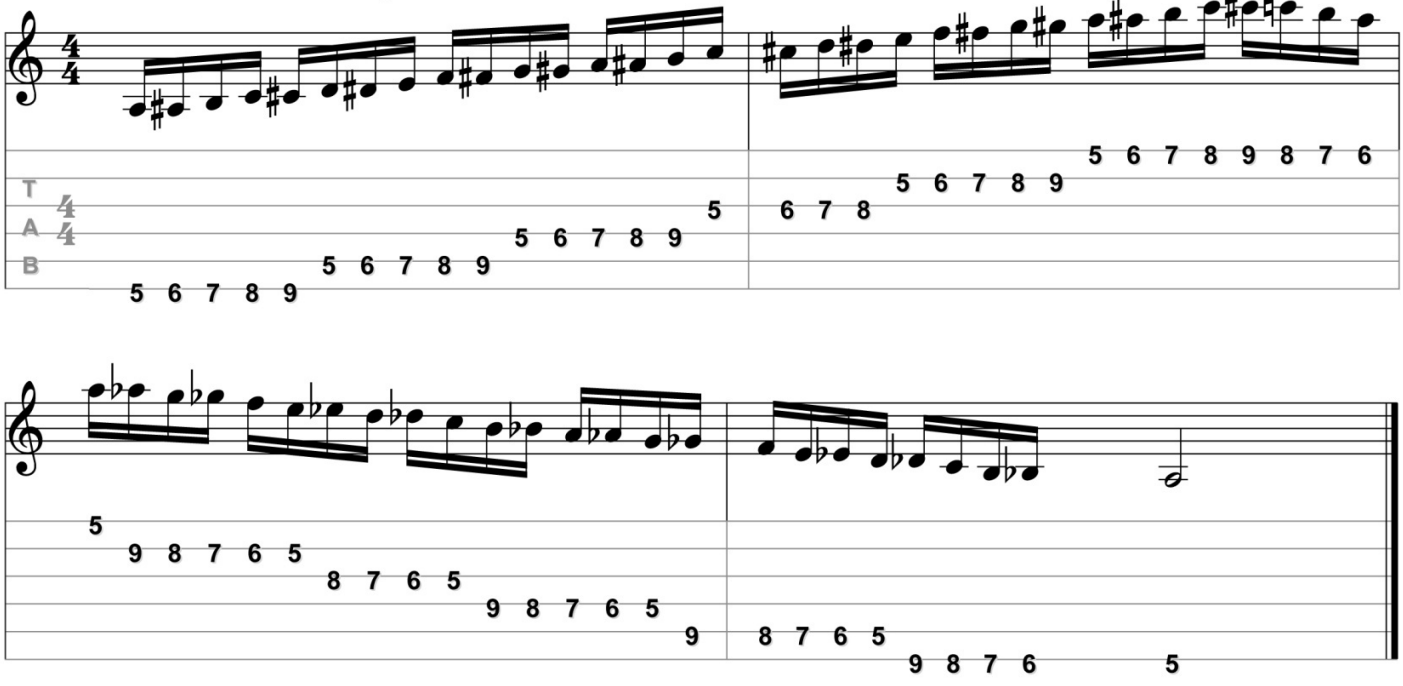
The 5-fret Rule

The entire chromatic scale can be played in two octaves as long as you give yourself a span of five-frets, anywhere on the guitar neck. Here are a couple of examples; **(CD1 – Track 13)**

Chromatic Scale (in open range)



Chromatic Scale (within five frets)



Because the entire chromatic scale can be found within five frets anywhere on the neck, it follows that you can find all the notes to play any chord and/or in any key as long as you give yourself a reach of at least five frets. This is what I refer to as the **“five-fret rule”,** and it is a fundamental premise of my teaching method.

*Helpful tips**

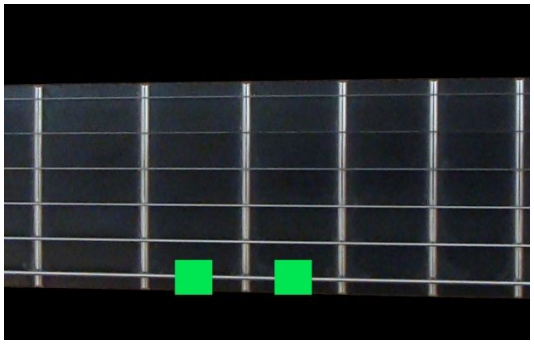
- *Be sure to use all of your fingers while playing the chromatic scale.*
- *Play through it slowly at first, insuring that each note sounds out strongly.*
- *Carefully listen to each half-step interval. Remember, you’re training your ears as well as your fingers.*
- *Try to alternate your picking so that you are picking up and then down every other note.*
- *Try to play the exercise in a variety of styles; as smoothly as you can, or as choppy as you can, etc.*
- *Focus on the quality your playing. It is only by first playing slowly again and again that you’re programming in your ability to play quickly and efficiently later.*
- *Play exercise 4 as a warm-up exercise each time you pick up the guitar. You’ll surprise yourself at how easy it can be to develop dexterity and control.*
- *If you don’t yet know all the names of the notes and how to play them, don’t worry. There will be specific exercises to help you with this in the next few sections.*

Half Steps and Whole Steps

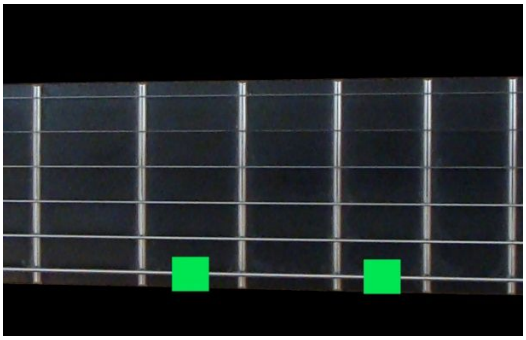
Since the space between one fret to the next is a “half step”, the space between two frets is a “whole step”.

For example, if the distance from F to F# is a half step, the distance from F to G is a whole step and vice versa. On the guitar, a whole step is played by starting on one note and playing two frets beyond on the same string, skipping one fret in between.

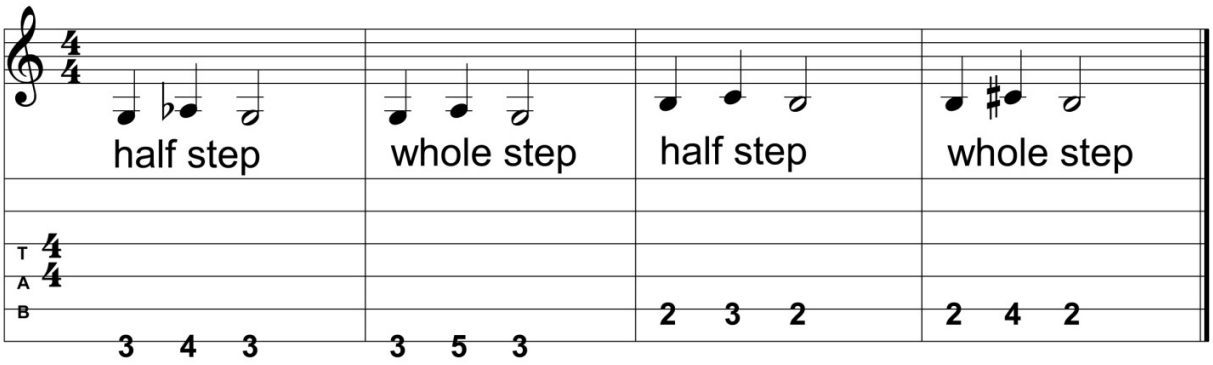
One Half Step Interval



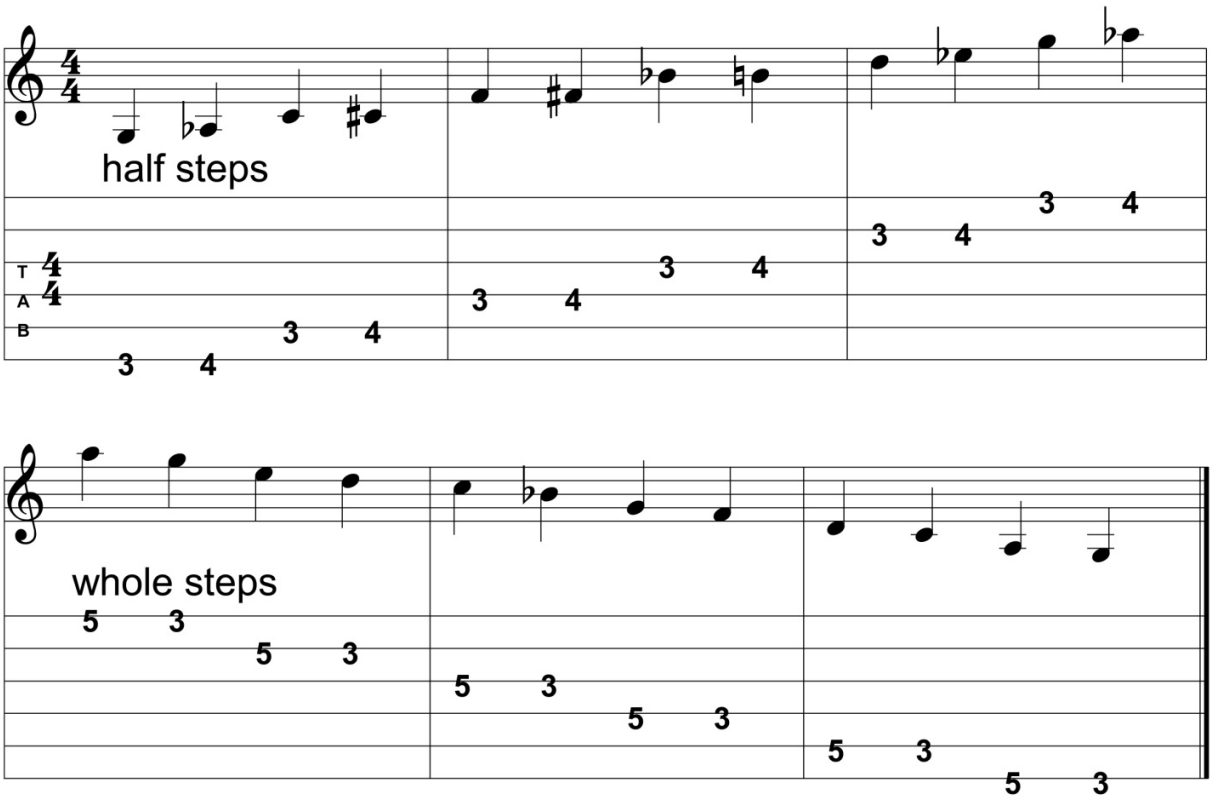
One Whole Step Interval



Exercise – half steps and whole steps. **(CD1 – Track 14)**



Exercise – ascending half steps and descending whole steps on each string. **(CD1 – Track 15)**



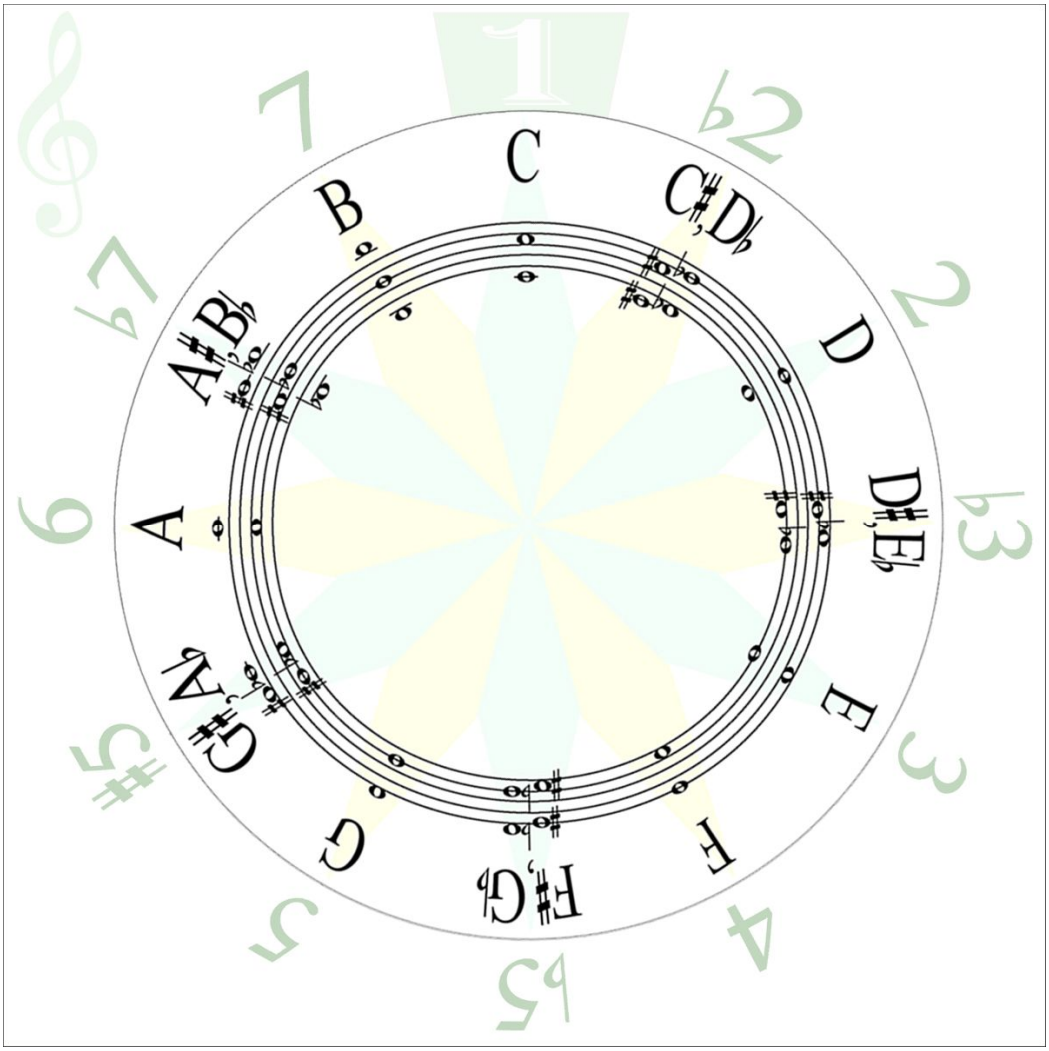
Helpful Tips;

- *Keep half steps and whole steps in mind for when we cover intervals and scales.*
- *Intervals can also be measured in whole steps or half steps to judge the relationship between each note of a chord or scale.*
- *The distance between each note of a major scale will either be a whole step or a half step.*

The Musical Compass

My teaching system involves using the musical compass, the twelve notes of the chromatic scale, arranged in chromatic order within a circle. In this book, we'll be using this system quite a bit. I'll show you just how easy it is to make and use a musical compass to construct various scales, chords, observe intervals, and even transpose music from one key to another.

Below is an example of the musical compass. Take a look at just the names of the notes for now.



(* In the back of this book, there is a kit that you can use to create your own musical compass.)

Take a moment to make the following observations;

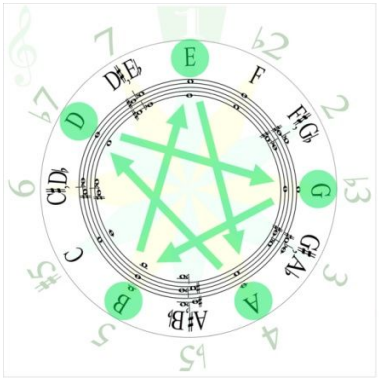
- *The 12 spaces represent the 12 notes of the chromatic scale*
- *Each division on the wheel is one-half step apart*
- *The names of the notes come from the letters of the alphabet A through G*
- *When we move up in pitch (as notes get higher) we are moving clockwise around the wheel. Similarly, as we move down in pitch, we are moving counter-clockwise.*
- *Moving twelve spaces around the wheel means that you have moved one entire octave, yet the names of the notes remain the same regardless of octaves.*
- *The "#" symbol means that a note is "sharp", or raised up one half step from the previous note. For example, the note "C#" is one half-step above the note C.*
- *Similarly, the "♭" symbol means that a note is "flat", or lowered one half-step from the previous note. Please note that in this book I have frequently used a single lower case "♭" to indicate where I mean "flat". So instead of thinking of the "letter b", just think "it's flat". For example "A♭" is read "A flat", "m♭5" is read "minor flat five", and etc.*
- *Notes that are neither sharp nor flat are referred to as "natural".*
- *Notes that occur in between natural notes have two names. For example, C# is the same note as D♭. This is because, traditionally, each key is written and notated in either all sharps or all flats. For example, the key of E Major consists of the notes (E, F#, G#, A, B, C#, and D#) while the key of Db consists of the notes (D♭, E♭, F, G♭, A♭, B♭, and C) – F#, G#, C#, and D# are the same notes as G♭, A♭, D♭, and E♭.*

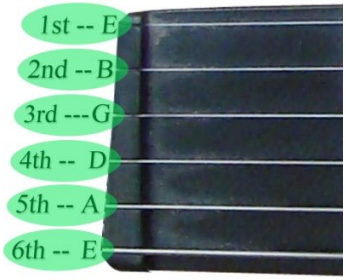
- *There are five notes that have two names, C# = D♭, D# = E♭, F# = G♭, G# = A♭, and A# = B♭.*
- *There are no sharps of flats between the notes B and C, nor E and F. In other words, B# = C, C♭ = B, E# = F, and F♭ = E.*
- *The top of the wheel represents the "root" position. In this example, the note C is turned to the "root" position. Root position can refer to the root note of a chord, or scale. For example, in a G Major scale, the root note is G, but in a B minor chord, the root note is B, etc. This system makes it easy to see, at a glance, all interval relationships within chords and scales.*

The Layout of the Guitar

The strings of the guitar are typically labelled 1through 6, with the first string being the smallest (and highest pitch of the open strings) and the sixth string being the thickest (and lowest pitch.)

The fifth string, an A note when played open, is traditionally tuned to A 440 hertz, a tradition which was established nearly a century ago with the dawn of modern guitar strings. The sixth string is tuned to a low E two and a half steps below the A on the open fifth string, and is the lowest possible note you can play on the guitar in standard tuning.





Helpful Tips;

E to A = 2 ½ steps

A to D = 2 ½ steps

D to G = 2 ½ steps

G to B = only 2 steps

(the exception)

B to E = 2 ½ steps

- ***Remember the unique difference in proportion between the G and B strings when we study scale patterns!***

urn your note wheel to the root position of E and take a moment to observe the intervals between each of the six open strings starting with Low E. (Remember that the wheel is divided into half steps)

From low E to A is two and one half steps. (We know this by observing the number of spaces, moving clockwise, between these notes on the note wheel. From E to A is five half steps, which adds up to 2 ½ steps.)

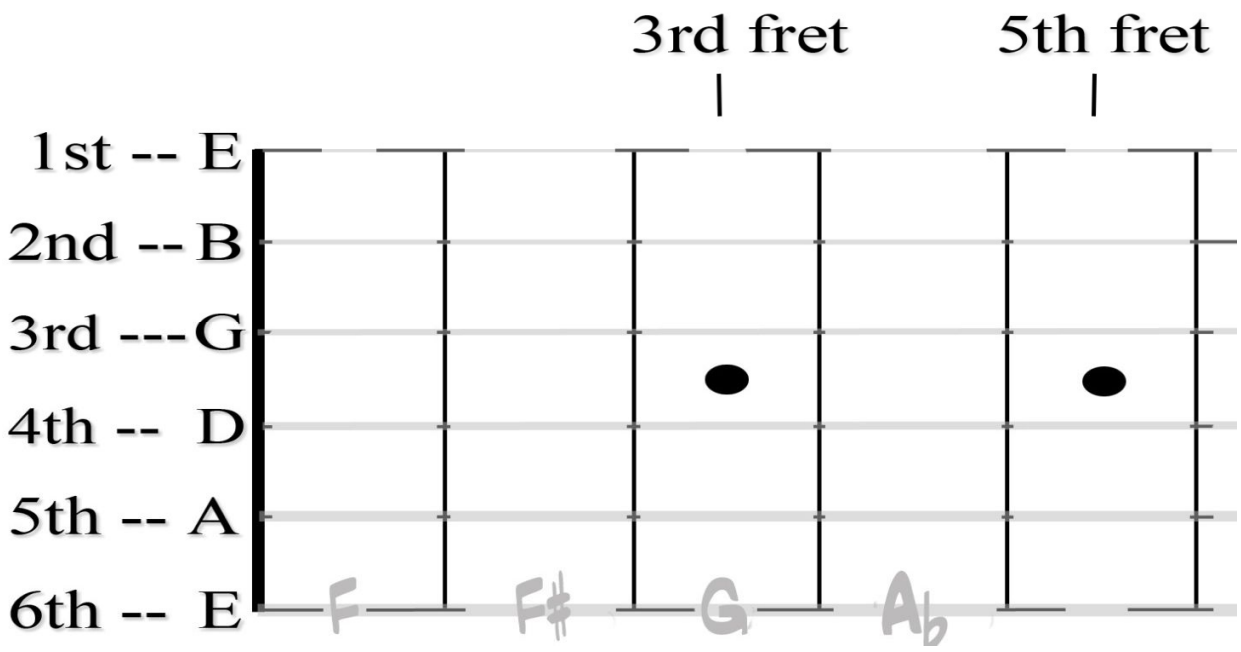
Similarly, there are 2 ½ steps from the A string to the D string, and 2 ½ steps from the D string to the G string. So far, 2 ½ steps between one open string and the next seems to be a recurring pattern. However, look at the interval between the G and B strings; From G to B, we move up only four half-step spaces around the wheel, or only 2 steps. Finally the interval between the B and E strings is again 2 ½ steps.

The Layout of the guitar is designed so that the top and bottom strings are tuned to the same note, E, two octaves apart. This design allows for playing chords comfortably and. – especially barred chords, which we will study about in the section on chord inversions.

Exercise – Label all the notes within the first five frets.

Beginning on each note of the open strings, move around the note wheel clockwise to find and label the notes within the first five frets. For example, starting on the sixth string, low E, and moving clockwise from E, we can label the notes played on the sixth string within the first five frets; E, F, F#, G, A♭, A, etc. Remember that each space that you move up on the note wheel represents a different fret!

If you need help, you can refer to the fully-labelled chart of the fret board in the following section.



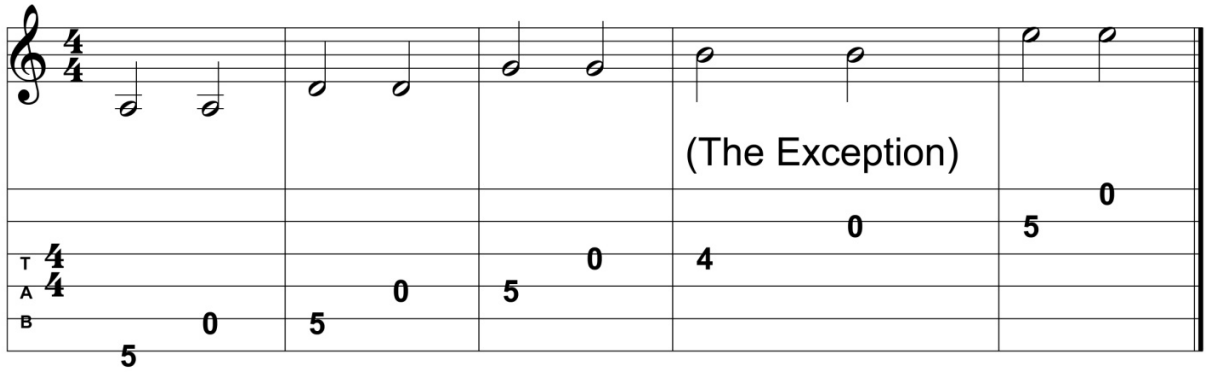
Unison Notes

On the average 6-string electric guitar, there are 22 frets, representing 132 notes with only a 46 note range (roughly four octaves). This is because 76 of these notes are duplicates, meaning that there is at least more than one way to play the exact same pitch; and, in many cases, four or five places on the neck where the same note can be played. Contrast this to the piano, where there is only one way to play each note. On the piano, middle C is middle C, and there is only one place where you can find it; in the middle! However, on the guitar, for example, middle C could be played on the 3rd fret on the fifth string, or on the 8th fret on the sixth string. – Which one you decide to play depends on what you happen to be playing at the time and where you intend to go from there! It is because of these 76 duplicate notes that reading music is notoriously difficult for the guitar.

In fact, most guitarists have skipped this element of their training all together, and prefer to read only tablature notation, which, of-course, uses the grid-like method to specify which string and which fret a given note is played upon. In this book, I have included both standard notation along with tab, so that you can follow along no matter what your level of ability or musical goals happen to be.

Exercise – Relative Tuning

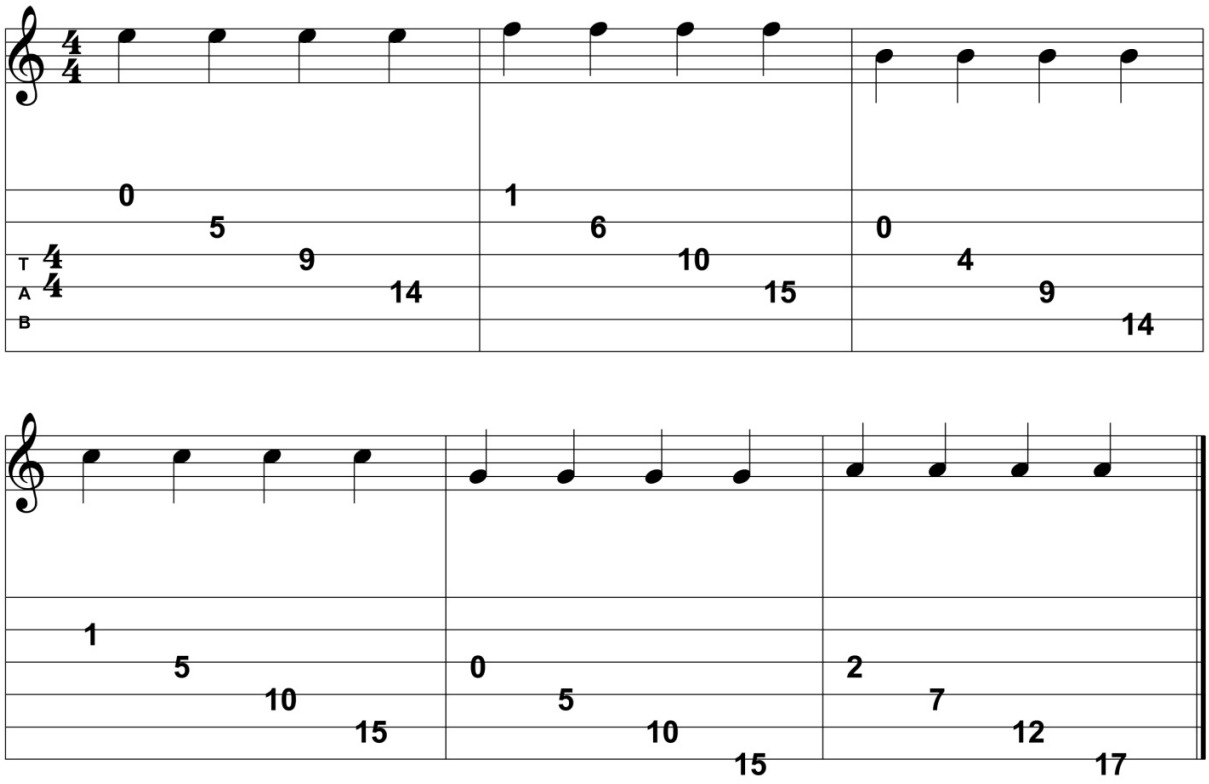
Relative tuning is frequently used to tune the guitar by ear. The pitch of each string is cross-checked with each of the open notes of its neighbouring strings using unison notes found on the 4th and 5th frets. **(CD1 – Track 16)**

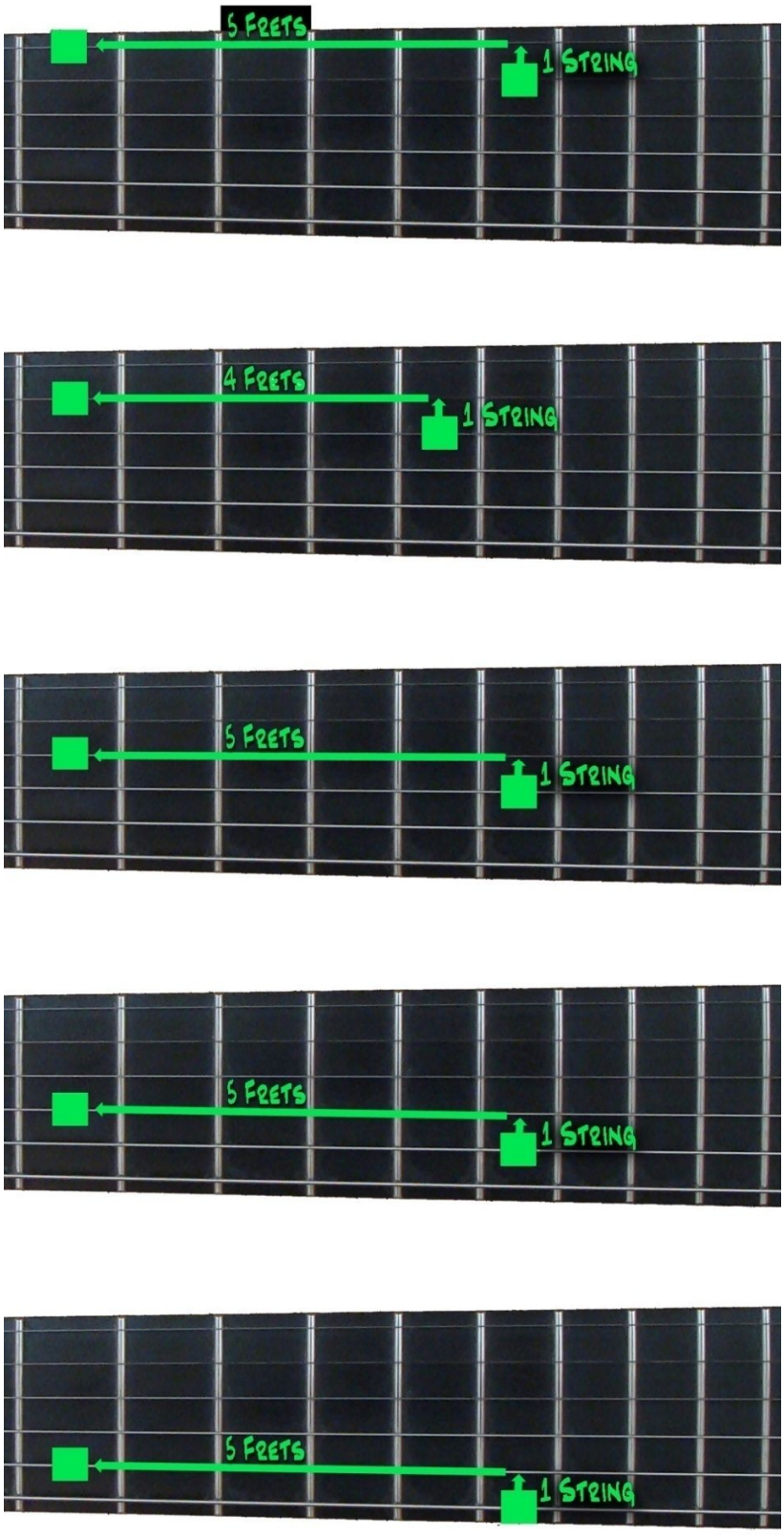


Notice how the note A played on the 5th fret on the sixth string is the exact same pitch as the A on the open string right below. Similarly, The note on the 5th fret of the 5th, 4th, and 2nd string is the same as the note played on each open string beneath; D, G, and E. The only exception to this rule is the B note played on the 4th fret of the 3rd string which matches the open B on the 2nd string.

Provided you have adequate room on the fret board from your starting note, the general rule for unison notes on neighbouring strings is as follows; on the 2nd, 4th, 5th, and 6th strings, unison notes are found by moving one string down and five frets back. On the 1st, 3rd, 4th, and 5th strings, unison notes can also be found by moving up one string and five frets forward. The only exception to this rule is due to the proportional difference in tuning between the 2nd and 3rd strings. On the 3rd string, unison notes are found by moving one string down and only four frets back, while on the 2nd string, unison notes are found by moving one string up and only four frets forward.

These relationships have provided the inspiration for many famous guitar riffs, and make an excellent addition to your warm-up routine. **(CD1 – Track 17)**



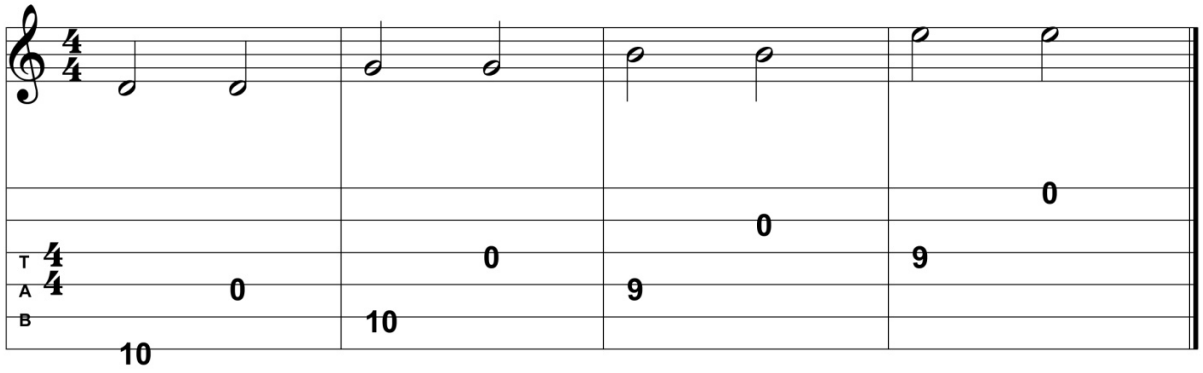


Notice how there is only a four-fret difference between the unison notes on the second and third strings. On all the other sets of strings, there are five frets between.

This is because of the way the guitar is tuned. The interval of distance between the notes open G and open B is only two steps, also called a "Major third interval. All other sets of strings are tuned so that the interval distance between one open string and the next is two and one half steps, or a "Fourth" interval.

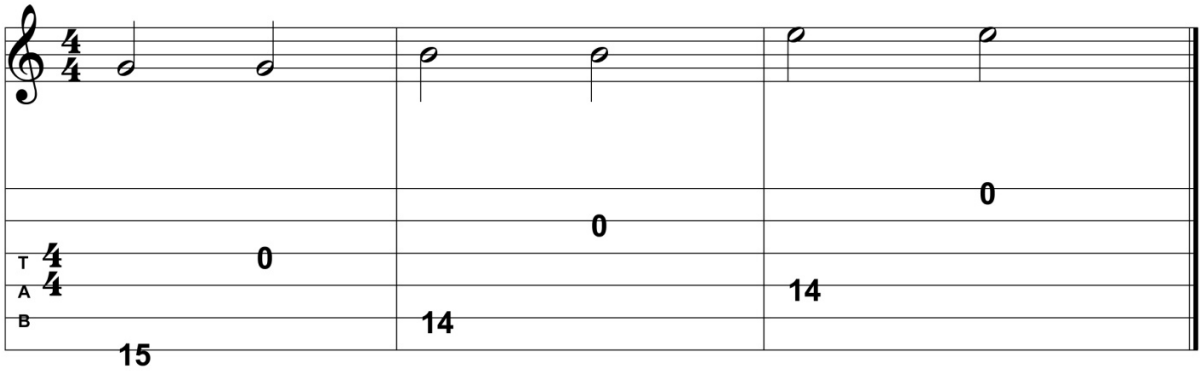
This relationship affects the entire layout of the guitar. On any one specific fret, the interval distances between one string and the next will be the same.

Relative Tuning of notes two strings apart from one another. **(CD1 – Track 18)**



Notice how the D note on the 6th string on the 10th fret is the exact same pitch as the D played on the open 4th string, exactly five frets beyond the D that can be played on the 5th fret on the 5th string, as in the previous exercise. These relationships are also true for the 3rd, 4th, and 6ths strings. However, because of the proportional difference in tuning, this changes when we play on the 1st and 2nd strings.

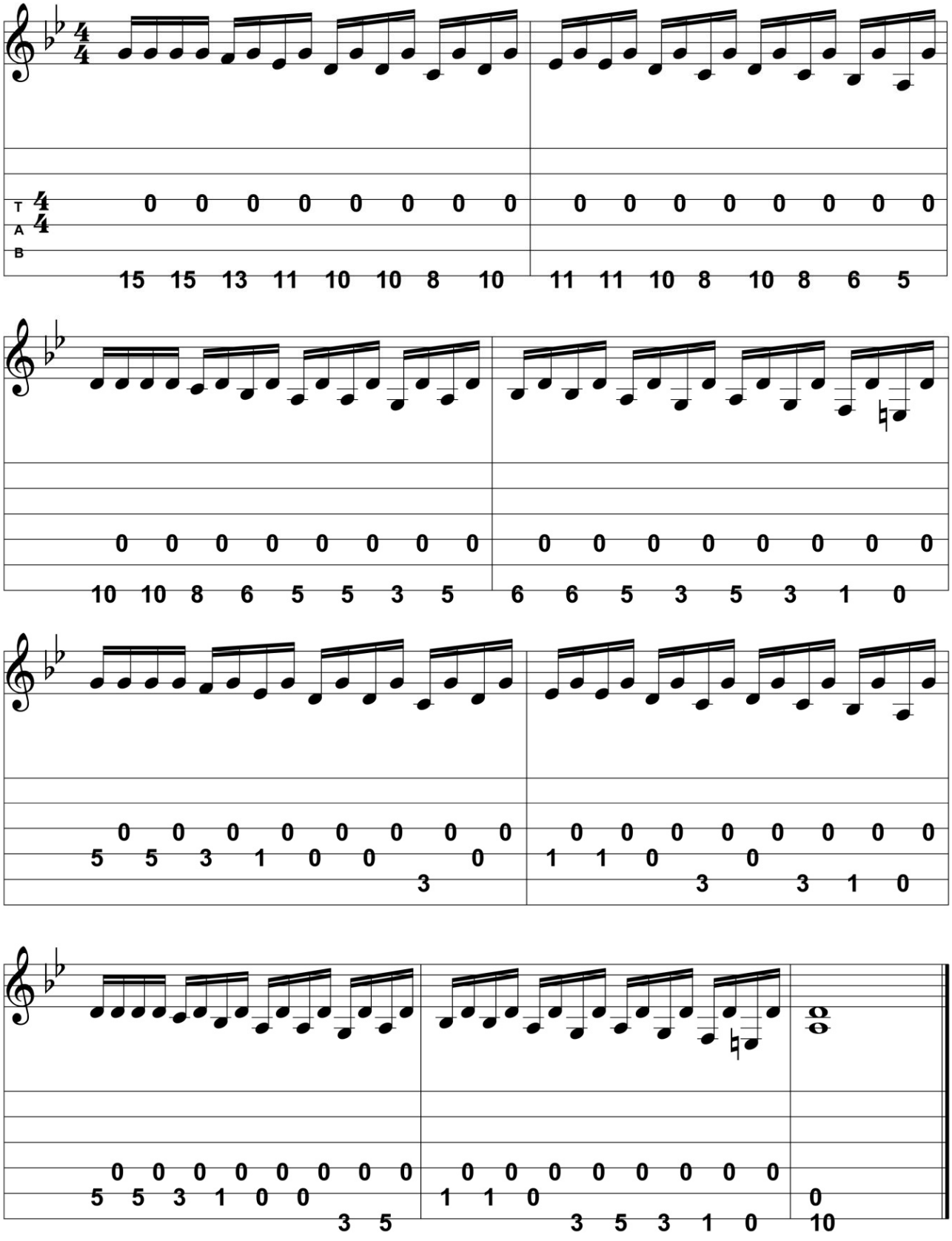
Relative tuning of notes three strings apart from one another. (**CD1 – Track 19)**



Here is a fun exercise using “drone notes” to help you remember these unison relationships.

(CD1 – Track 20)

"Floating Down the Nile"



How to "Fine Tune" Your Guitar

While you can use an electric tuner or the common unison not tuning method to tune each string individually, this still won't guarantee that the strings will be perfectly in tune with each other. So, it's important to "fine tune" your guitar by making sure all the strings are not just in tune with themselves, but also in tune with one another.

Here's what to listen for. When two pitches are ever-so slightly different, their wavelengths interfere with one another. If you listen closely, you'll hear this interference as a faint wobbling that kind of sounds like a "wah-wah-wah". You may need to turn your guitar up slightly to hear this better. The closer the pitches match one another, the slower this wobbling will be. The less the pitches match, the faster the wobbling becomes. So you'll want to listen out for the wobbling, and tune the string until it slows down and eventually stops all together, creating a smooth even match. The wobbling effect is not only present with unison notes; it's also present with octaves and certain harmonies.

Fine tuning makes all the difference in the world, because it's that small difference that can make a great guitar player sound not so great, and the average guitar player sound like a million bucks. It also improves things like tone, resonance, and sustain as well, because if the wavelengths of sound aren't fighting with one another, they carry longer. It's just more soothing to the ear. Even people who would tell you that they couldn't notice if a guitar was ever-so slightly out of tune will subconsciously prefer guitar music from a finely tuned guitar.

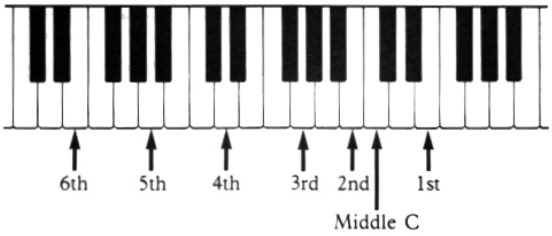
Note that if you have brand new strings on your guitar, they may tend to go out of tune more easily than a set of strings that have been broken in. So if you do have a set of new strings on your guitar, make sure that you've stretched them out first. If you're unsure how to do this, they might do this for you in the music store if you ask politely.

Also if you play electric guitar, it's important to make sure that your guitar intonation is "set-up" properly. On most electric guitars, the saddles for each string on the bridge can be adjusted forwards or backwards. Finding just the right place insures that the length of the string is properly calibrated with the placement of the frets and that your guitar doesn't go more and more out of tune the further you play up the neck. In general, you'll want to make sure that the twelfth fret is the exact half-point of the string from where it touches the saddle to where it touches the nut. There are some exceptions to this however, coiled strings and thicker strings in general will need to be pushed back a little further to compensate for the extra length they require to vibrate. Setting up the intonation on your guitar requires a screw driver, hex key, measuring tape, and some experience. But don't sweat it. If you're unsure about this, take your

guitar into a local guitar shop and have a guitar tech set up the intonation for you. I know in most places if you buy a set of new strings they might even do it for free!

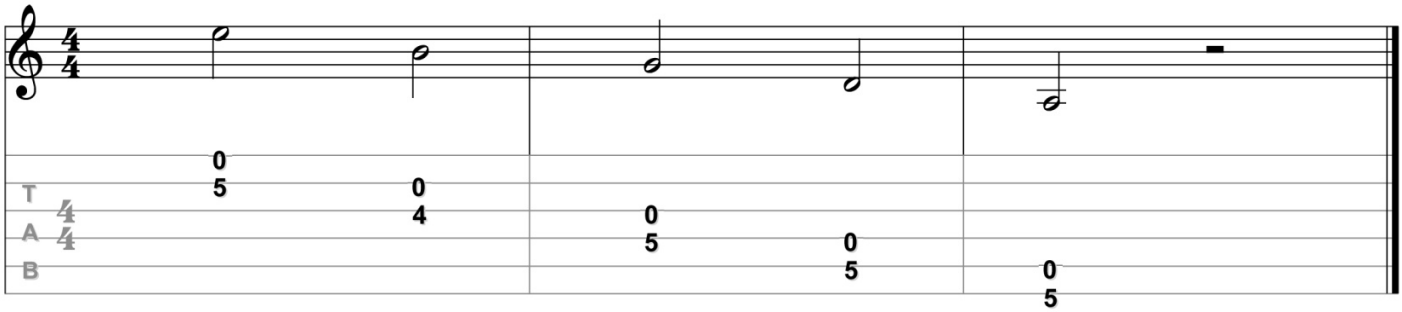
Here's a few of the best ways I've found to fine tune your guitar;

First, tune your guitar to a piano or electric tuner as you normally would.



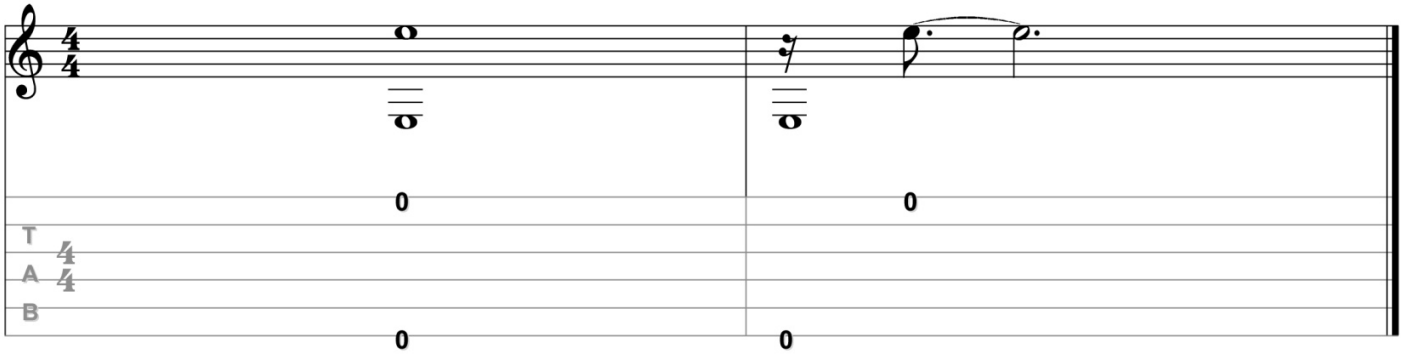
Note that it's best to tune your guitar up to a pitch by tightening the string even if it means you have to first loosen it and then tighten it back up to the desired pitch. This is because when you merely loosen a string down to a desired pitch, there is a risk that it can slip further after a while, which is both unpredictable and undesirable.

Check the unison notes of the open strings. If this sounds way off, it may be an indicator that your intonation is off. If that's the case, read the previous paragraph on having the intonation on your guitar set up properly. **(CD2 – Track 1)**

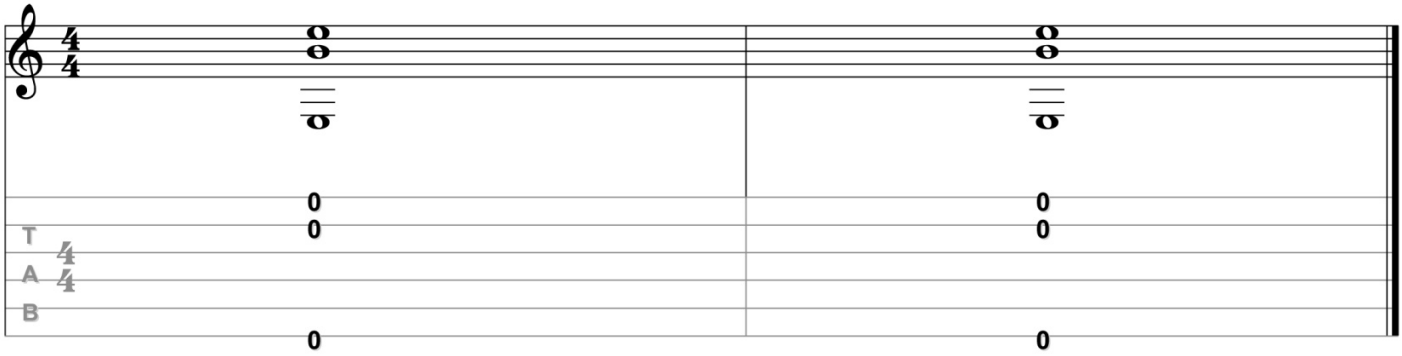


If something sounds just a little bit off, try bending the string slightly. If you can bend a string to match a desired pitch, it means that the string you're bending needs to be tightened. If you are unable to match a pitch by bending, it means that the string needs to be lowered. You'll even have an idea of how much you need to adjust by how far you had to bend it to match.

Next, check the top and bottom string. If the top and the bottom string match and don't wobble, it means that now you've got two points of reference that you know for a fact are accurate. So leave low E and high E alone. If something doesn't match from this point, another string is to blame! **(CD2 – Track 2)**

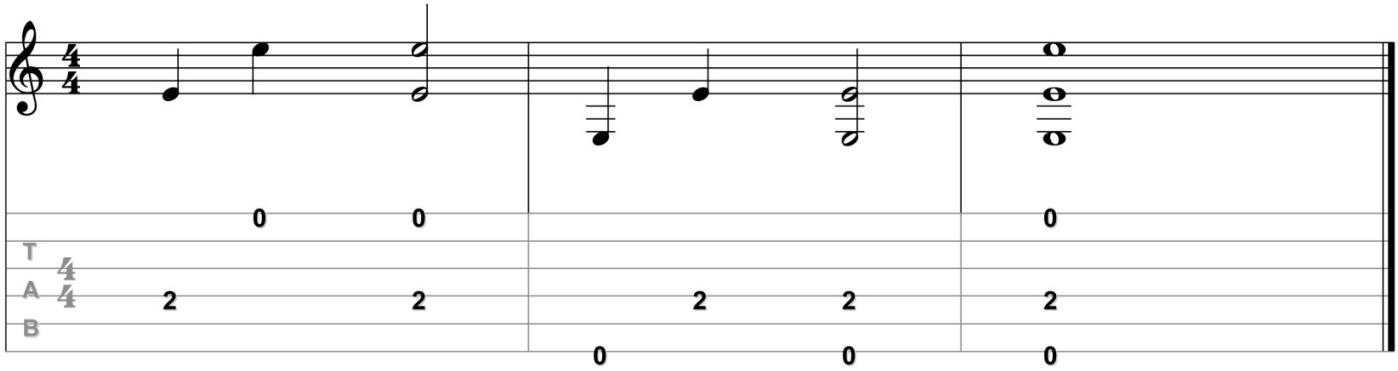


Compare open low E, open high E, and open B. Pluck all three at the same time. Adjust the open B string until the wobbling goes away completely. **(CD2 – Track 3)**



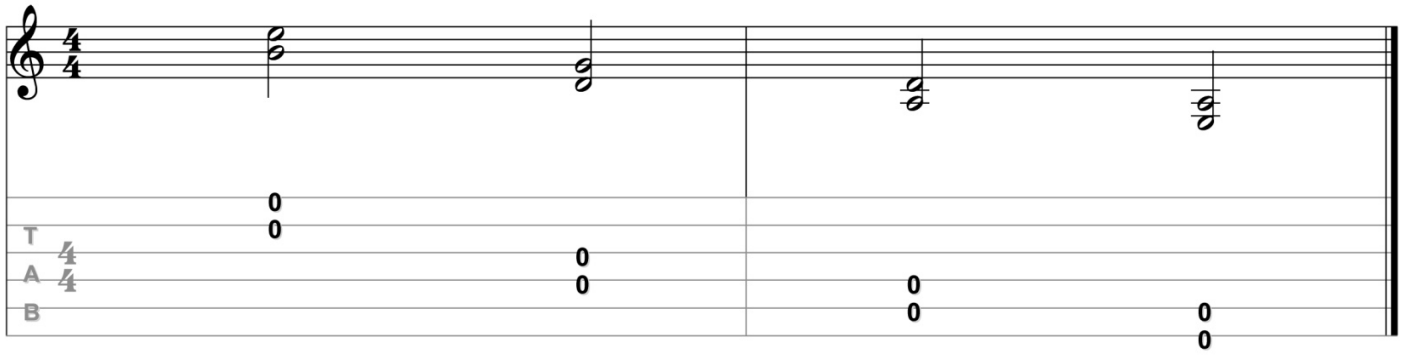
Make sure middle E (fourth string, second fret) matches low E and high E perfectly.

(CD2 – Track 4)

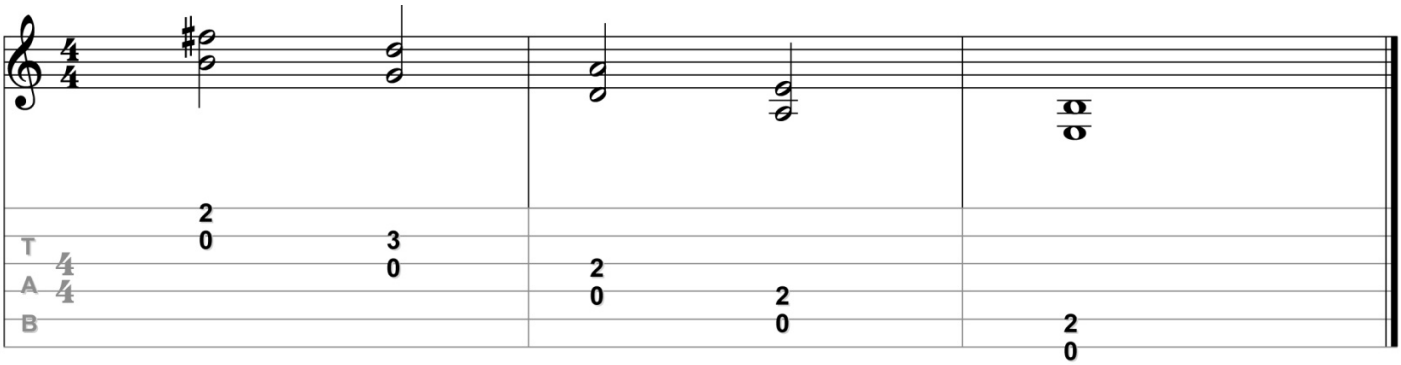


Fourth and fifth interval harmonies make great comparisons for tuning.

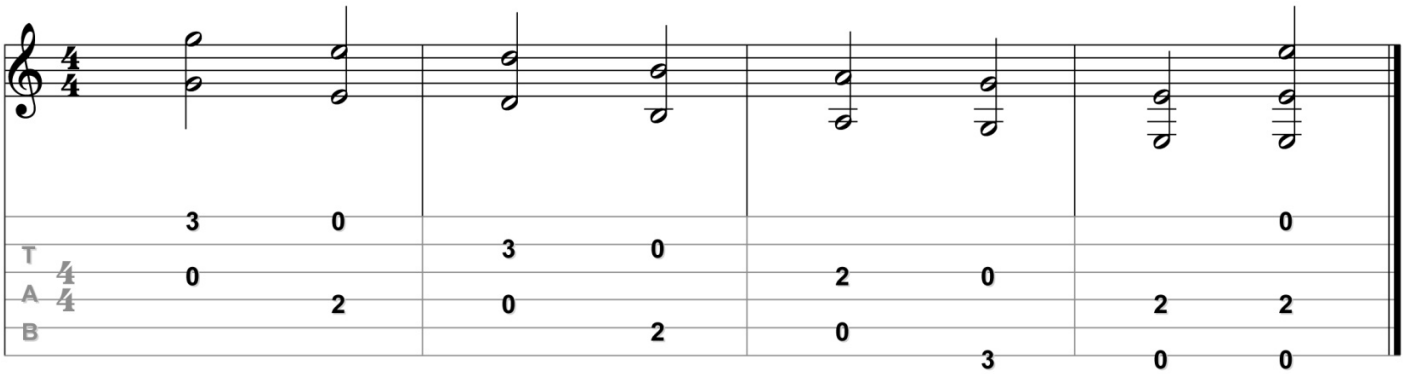
Check the harmonies of the open strings that have a 2 ½ step interval difference. These are perfect fourth interval harmonies. These open harmonies are high E with open B, open G with open D, open D and open A, and open A with open low E. **(CD2 – Track 5)**



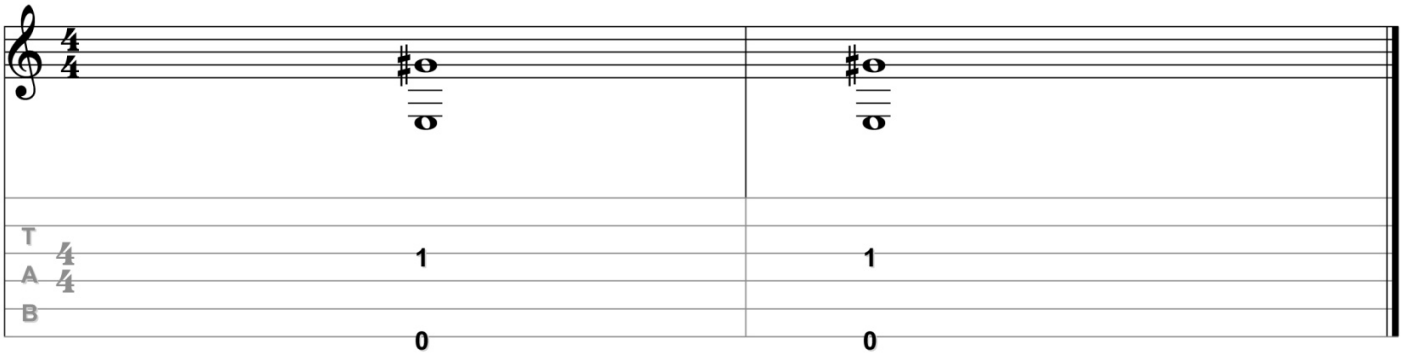
Check the fifth interval harmonies for each string. **(CD2 – Track 6)**



Now we'll skip strings as we continue comparing them to one another. Check the higher octaves of the third, fourth, fifth, and sixth strings. **(CD2 – Track 7)**



Check the harmony between low E and middle G sharp, two essential components of the E Major chord. **(CD2 – Track 8)**

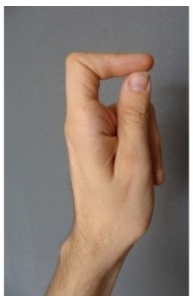


The relationship between the low E string and the third string is the most difficult relationship to tune on the guitar, and if this isn't quite right, nothing will sound quite right. Jimi Hendrix used to quickly check his tuning on stage to an open E chord, because he instinctively understood this.

Always double check. Keep cross-comparing the strings until your guitar sounds smooth and flawless. Once you get used to tuning this way it makes all the difference in the world. It doesn't take a lot of time either. I am usually able to fine tune a guitar in less than a minute, and with a little practice you should be able to as well.

A Simple Hand Relaxation Exercise

Pressing down more than one string at a time is called "Barring", and it's one of the most difficult techniques on the guitar to master. This because, in everyday-use of our hand, we are used to bending all of our joints at the same time like when we are holding something or making a fist. However, to play guitar well, you must learn to move your joints independently of one another. This is especially true for the index finger, which is most frequently used for barring. The tendency is, for a newbie, when experiencing difficulty playing a barred chord, to try harder by instinctively trying to grip and squeeze more tightly. However, this never works. The key to proper technique is not in squeezing harder, but in knowing how to properly relax.



So try this exercise; see if you can move your joints independently on your index finger. This is more of a mental exercise than a physical exercise because you're learning to recognize what this sensation feels like. See if you can keep your first finger joint firm, while keeping the second one relaxed. If you can do this while you're playing barred chords, you will find they are much easier to play.

The Two ways to Approach the Neck

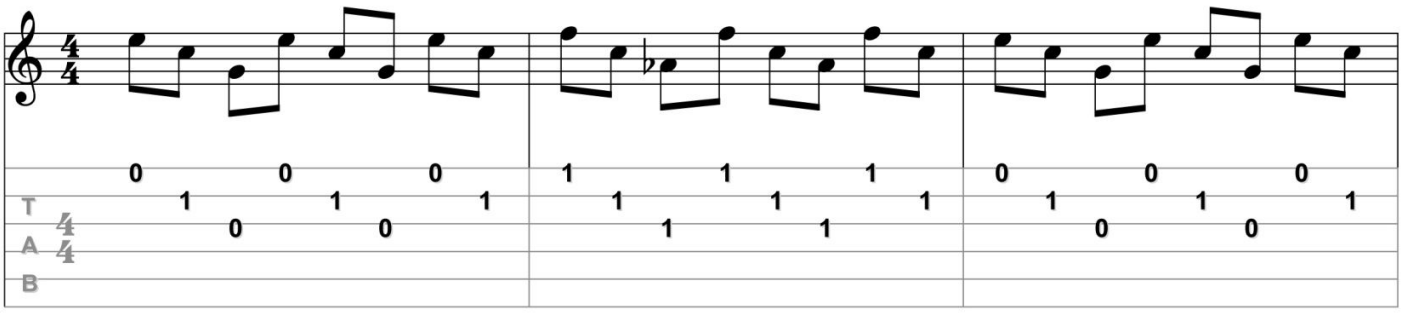
There are only two ways to place your fingers on the guitar. The first way is perpendicular to the fret board, where the tip of your finger is pressing down on one string and careful not to touch any other strings. The second way is parallel to the fret board, where your finger is flat against the fret board, pressing down more than one note at a time, as when barring. Because we obviously tend to use more than one finger at a time, these two concepts can be combined to create a variety of hand shapes.

In the next couple of exercises we'll practice and perfect these techniques. **(CD2 – Track 9)**


Perpendicular

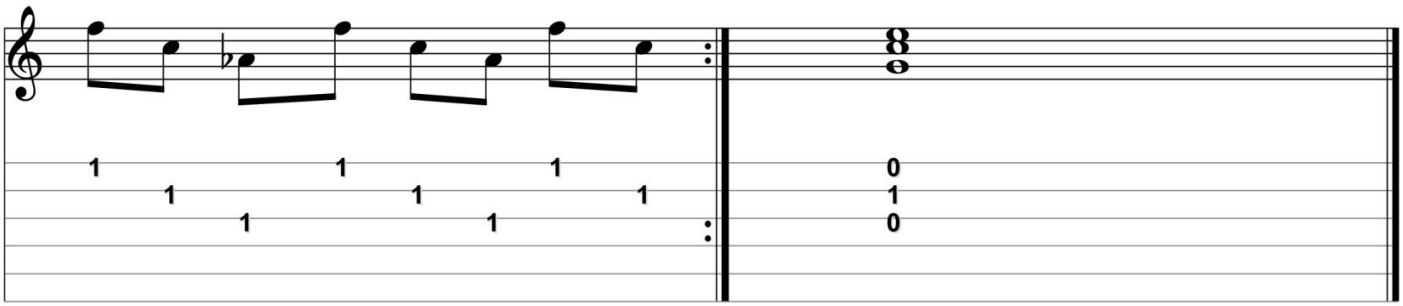
Flat

Perpendicular

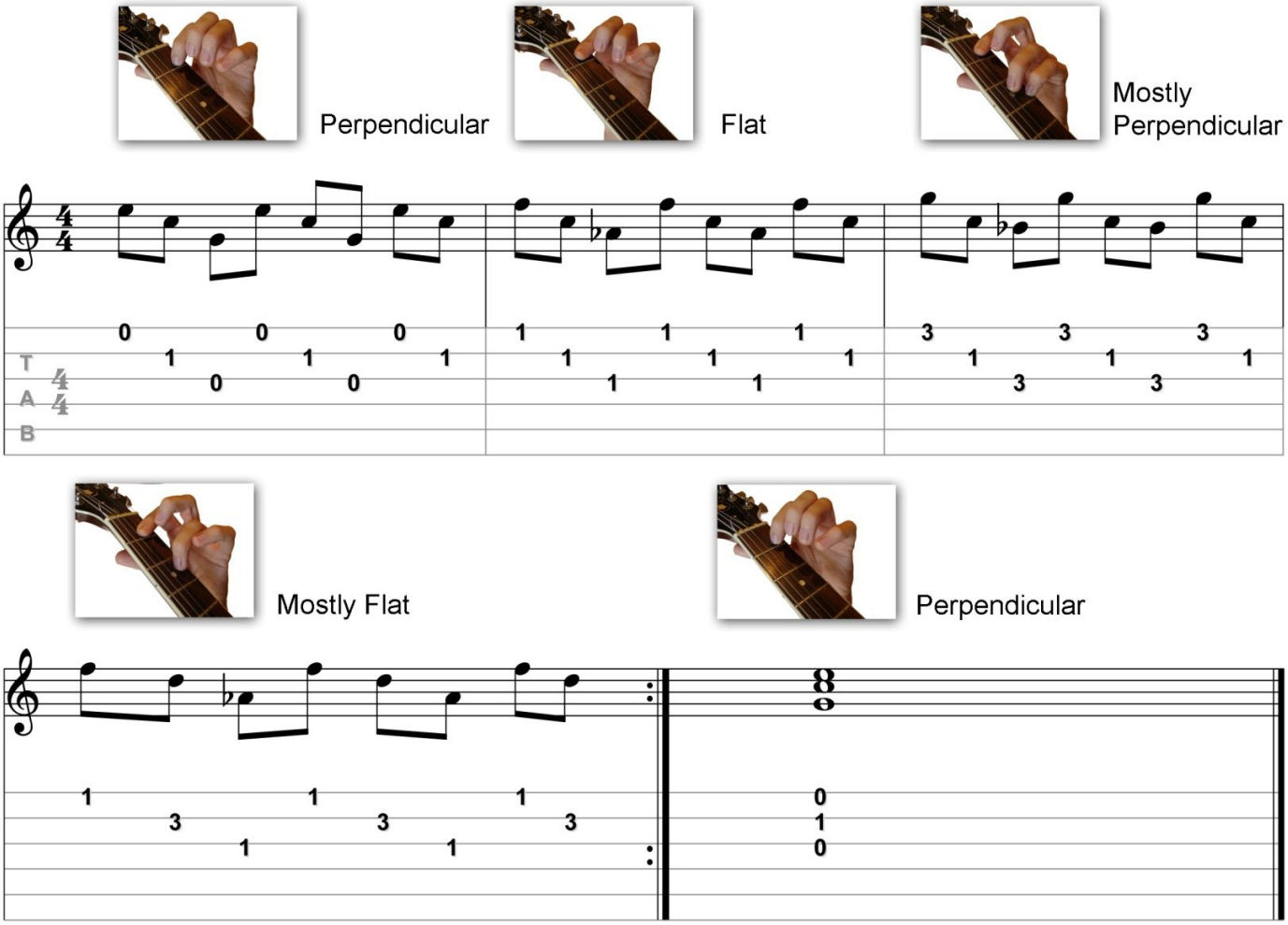



Flat

Perpendicular



Now we'll combine these two concepts. Play the fist measure with your index finger perpendicular, and in the second measure bar just as in the example above. In the third and fourth measures, hold the complete bar on the first fret while using your ring and small fingers to play the notes on the third fret. To do this, you'll have to keep your first finger parallel and your ring and small finger perpendicular to the fret board. **(CD2 – Track 10)**



How to Practice Changing Quickly Between Chords

One of the most difficult things to master before you are able to establish a sense of rhythm is being able to change between chords quickly, comfortably, and without hesitation.

This is because when a beginner learns to construct chords it's usually through a piece-meal process of "first, I put this finger here. Then, I put that finger there." Etc. Then when it's time to change chords, they'll typically remove all their fingers entirely from the fret board and start again from scratch. But you can't think this way every time you need to change chords in a song. It would slow you down to much. So, not only do you have to learn how to play chords, you'll also need to learn how to change smoothly between chords. And this is a slightly different skill worth studying on its own.

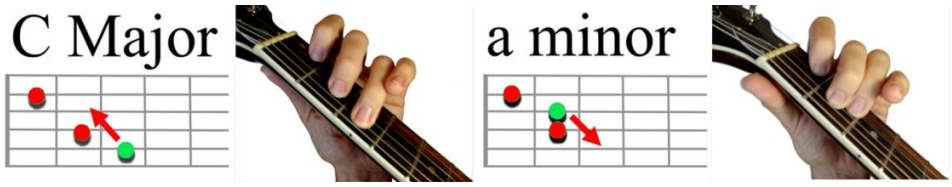
There are a few things to think about when switching between chords;

- Are any fingers added or taken away? If so, which ones, and where?
- Which finger(s) will make the *least* amount of movement? For example, do any fingers stay in the same place, and/or on the same fret or a nearby fret, and/or on the same string?
- Which finger(s) will make the *most* amount of movement? Hopping up or down one or several strings, changing a fret or more, etc.

Practice Changing back and forth between the following sets of chords;

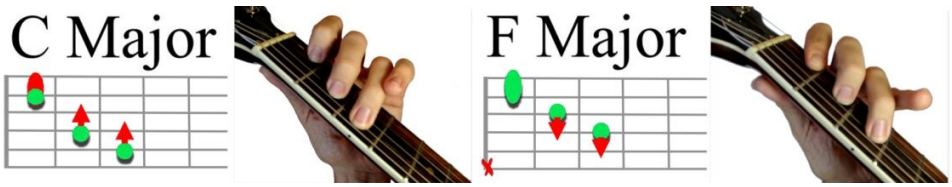
When changing from a C Major chord to an a minor chord, the index and middle fingers stay in the same place, so there is no need to lift them off while going back to square one. You don't need to reinvent the wheel when all you need to move is your ring finger!

C to am; **(CD2 – Track 11)**



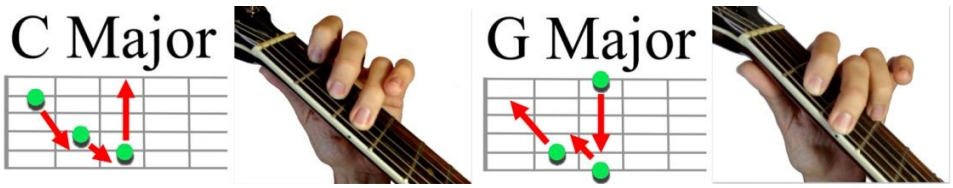
When changing from a C Major chord to an F Major chord, each finger stays on the same fret. The middle and ring finger each simply hop down a string, while the index finger flattens to bar the first and second strings.

C to F; **(CD2 – Track 12)**



When changing from C Major to G Major, the finger with the least amount of movement is the middle finger, which simply moves up a string and forward one fret. The fingers with the most amount of movement are the index finger, which moves up three strings and forward a fret, and the ring finger, which moves down four strings. Also notice how the wrist rotates.

C to G; **(CD2 – Track 13)**

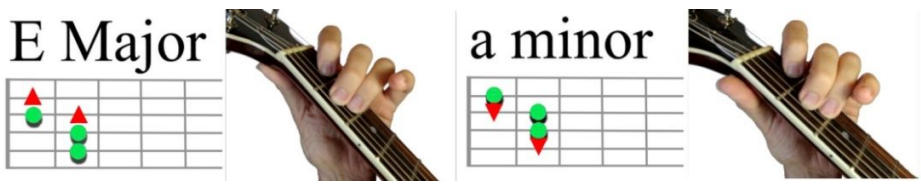


When you practice changing between chords, don't try to build the chords from scratch each time; that's too laboured of an approach and takes too long. Instead, try smoothly gliding your fingers from one chord to the next, hovering just above the strings, and only moving each finger just as much as you need to. This will help make your playing smoother and more enjoyable.

There are thousands of chords, and it would most certainly take a lot of work to practice this for every possible combination, but the good news is you don't have to. You've only got four fingers to fret with and there are only so many combinations of movements that your fingers can do before the patterns start to all seem familiar. So a little bit of practice with this goes a long way.

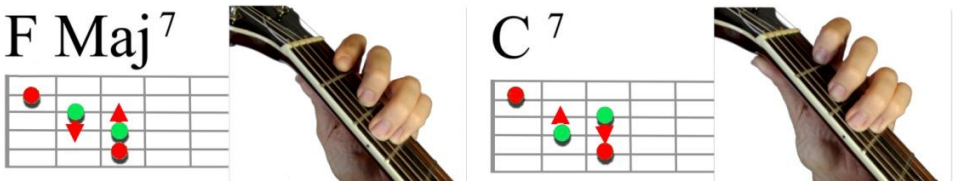
The combination of movements your fingers make can be described as; the "hop", the "swap", the "double-finger", the "slide", the "see-saw", the "squeeze", the "stretch", and the "release".

The "hop" occurs when one or more fingers hop up or down a string while staying on the same fret. An example of the "hop" is moving from E Major to a minor. **(CD2 – Track 14)**



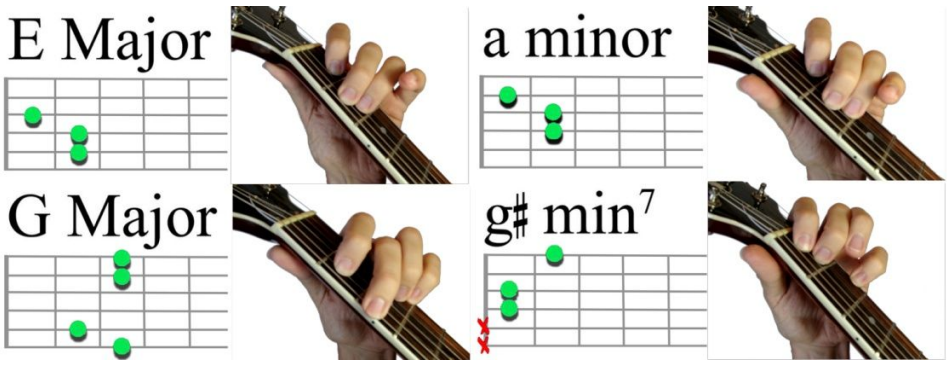
The “swap” occurs when two fingers within a chord swap strings while the remaining finger(s) remain in place. A common example of this is from FMaj7 to C7.

(CD2 – Track 15)

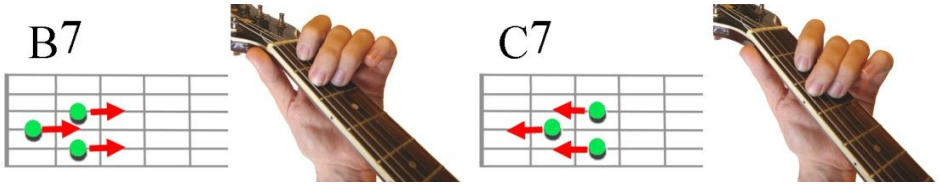


The “double finger” is what you get when you place two fingers together and press them down as if they were one. This improves playing because when two fingers move and press together as if they were one unit, its one less stray finger to think about. Because you have four fingers, there are three possible “double finger” combinations; small and ring, ring and middle, and middle and index.

Some common examples of the “double finger” include the E Major chord, a minor chord, G Major chord, and g#m7 chord; **(CD2 – Track 16)**

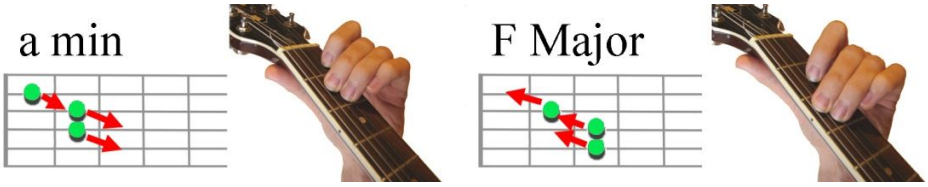


The “slide” occurs when you slide a chord shape forwards or backwards on the fret board. We’re talking more here about sliding a shape than sliding the sound. **(CD2 – Track 17)**

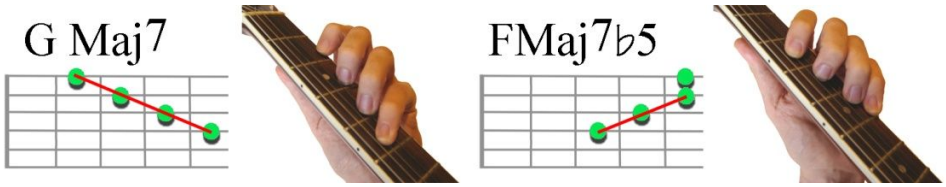


The slide can sometimes be combined with the “hop”, as in this example.

(CD2 – Track 18)



The “see-saw” is when the angle that your fingers are making on the fret board while forming one chord moves into an opposite angle to form another chord. **(CD2 – Track 19)**

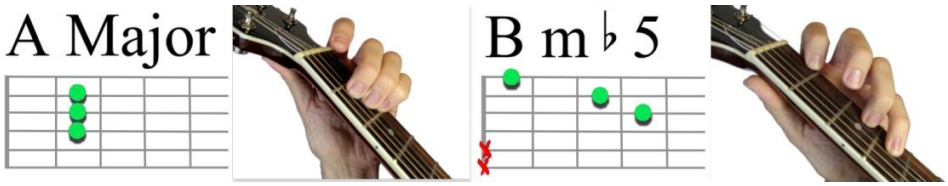


The “Squeeze” is what happens when you’re changing from a chord and squeeze more fingers onto a fret than previously so that it feels more compressed.

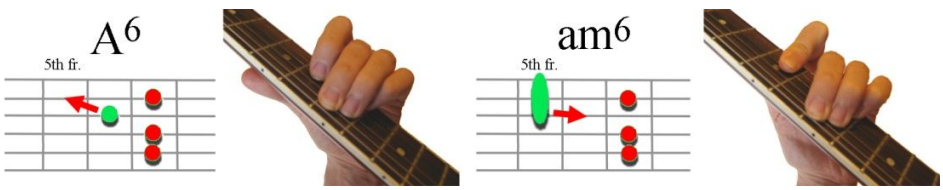
The “Stretch” is just the opposite of the squeeze, and occurs when you’re changing from a chord and have space your fingers out a little further to make the hand shape.

Some chords themselves are naturally more “squeezed” or “stretched”. For example, the common A Major chord is very “squeezed” by having three fingers on the same fret, while a chord like Bm♭5 is more “stretched” because of the reach your fingers have to make.

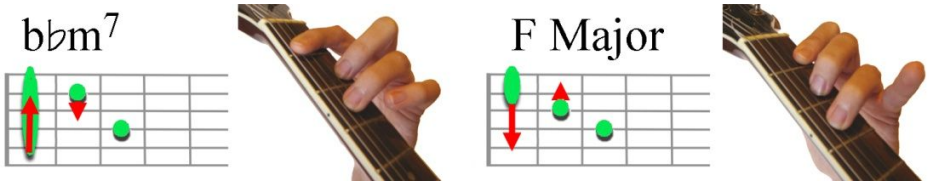
(CD2 – Track 20)



The “release” occurs when you have a barred chord followed by a non-barred chord, which happens quite often in guitar music, so you’ll need to get used to it! Try playing the following examples back and forth; **(CD2 – Track 21)**

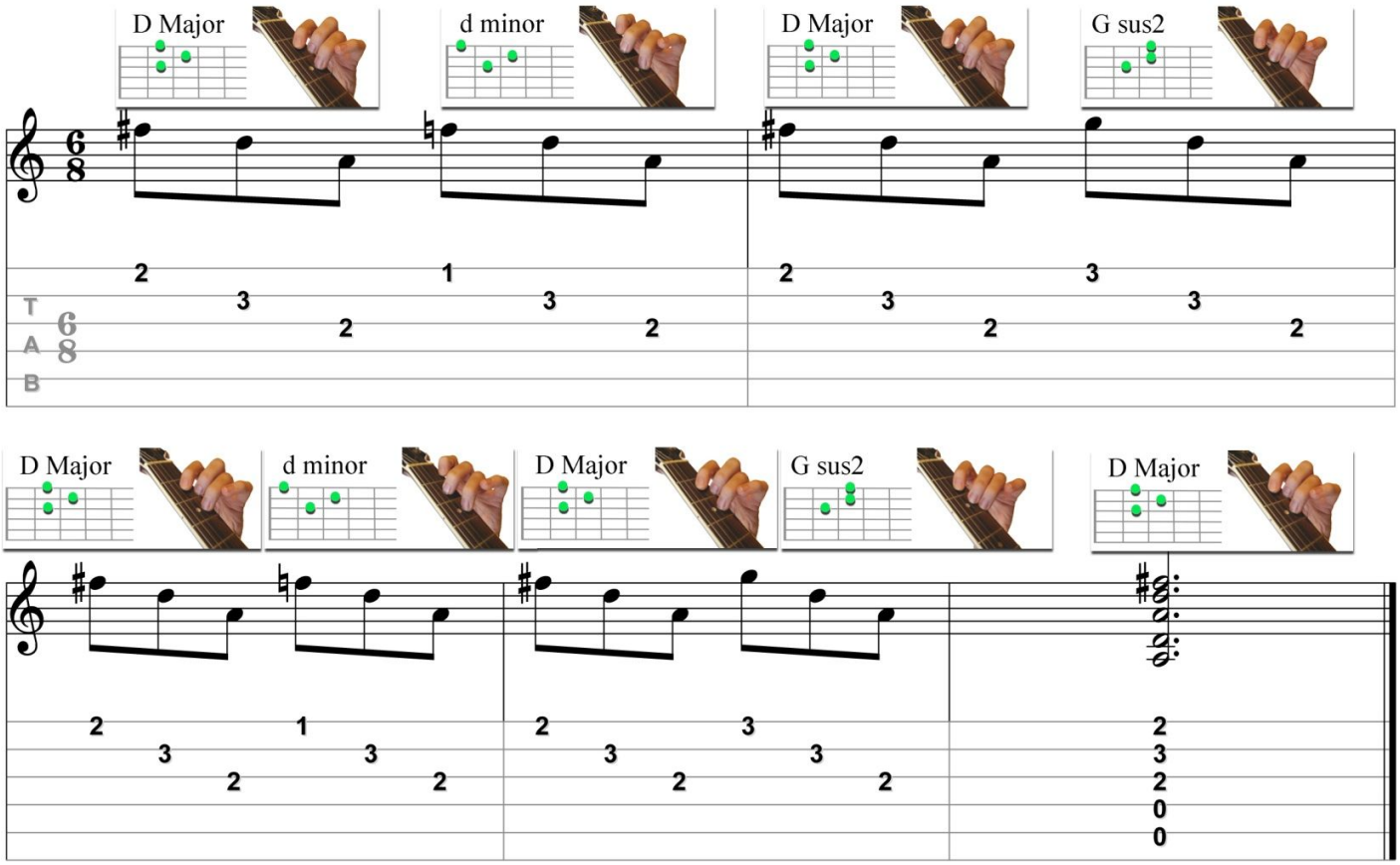


A barred chord with a full bar can also release to a barred chord with a lesser bar, as in the following example. **(CD2 – Track 22)**

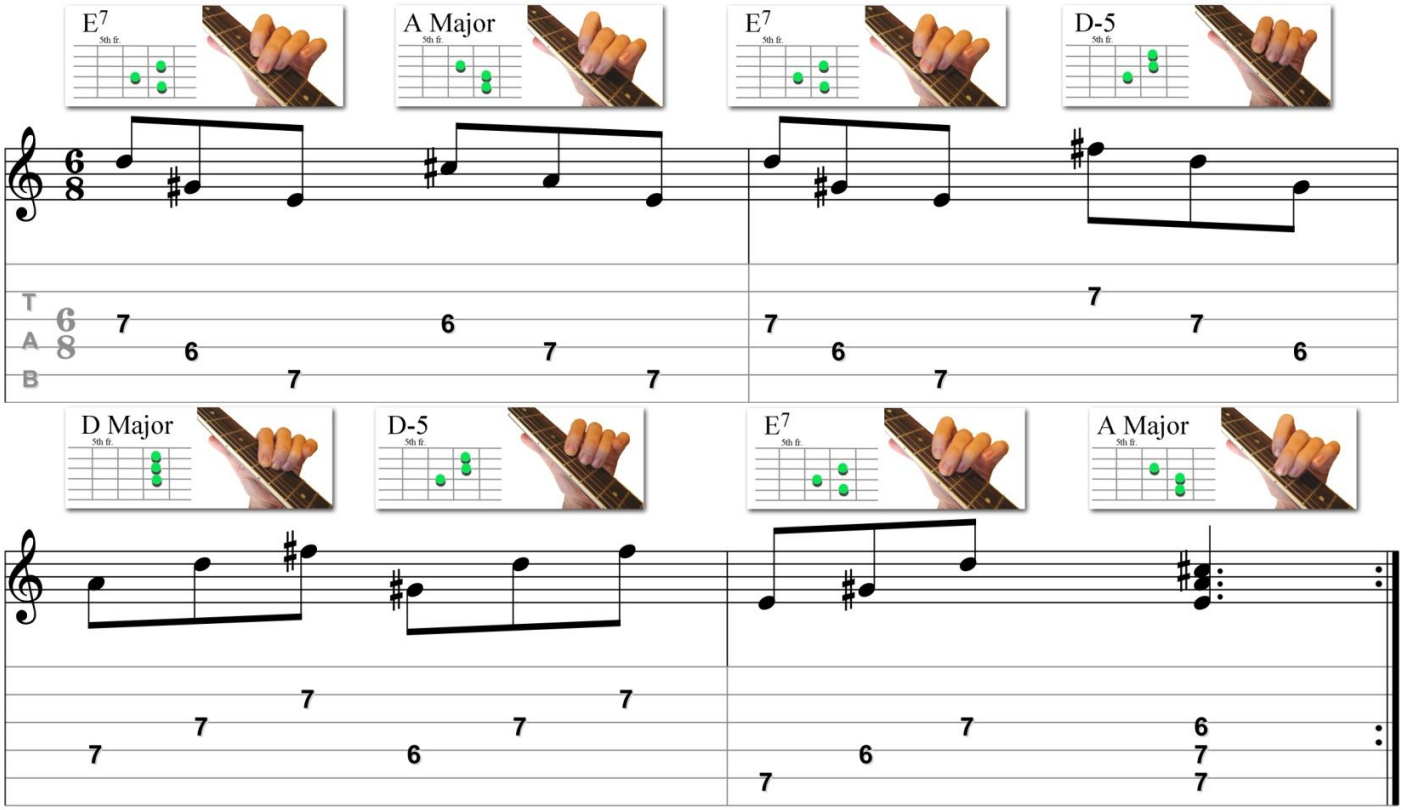


Here are a couple of exercises that combine most all of these concepts together;

Swapping and hopping; **(CD2 – Track 23)**



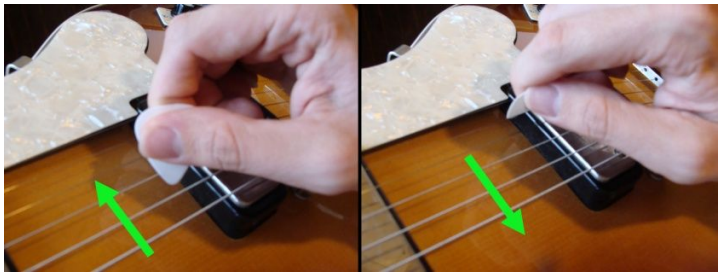
The following exercise contains a swap, hop, and a squeeze. See if you can point them out. **(CD2 – Track 24)**



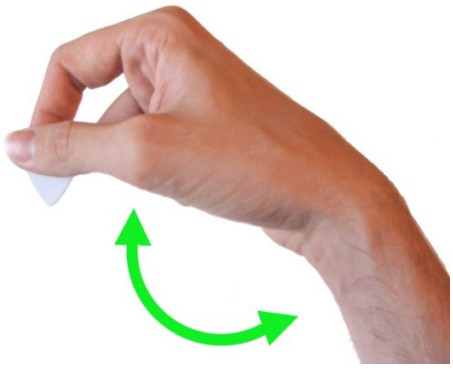
Basic Strumming Patterns

We've spent quite a bit of time discussing good habits with fret hand technique. So now we'll switch it up and discuss a little bit about picking hand techniques.

Note, when you're strumming chords, it's usually a good idea to tilt the pick and angle it slightly so that it glides across the strings more smoothly. If you feel you're not getting enough control, you may try switching to a heavier pick. I usually recommend medium picks (1mm).



The best technique for strumming is to strum by keeping your hand arched and firm while rotating your wrist. Try not to strum from the elbow, as you won't have as much fine motor control this way when it's time to aim for individual strings. Try to keep all in your strumming and picking in your wrist rotation.

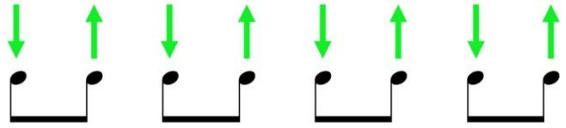


There are common strumming patterns that occur again and again in popular music like you would hear on the radio. Learning them not only opens the door to developing a sense of rhythm, but also being able to easily play many popular songs. You've heard the old wives tale about so-and-so who can play just about anything they hear on the radio. – Well, this is the know-how that turns you into that person.

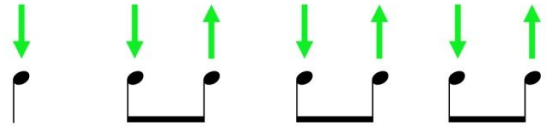
Here's a list of some of the most common strumming patterns used in popular music. Loop each rhythm, repeating each over and over with the given chords. If you need help finding out how to play a chord, you can refer to the chord charts for each key in the back of this book.

(CD3 – Tracks 1 through 6)

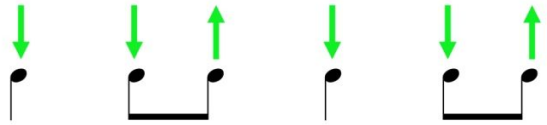
Example 1 - ***C Major***



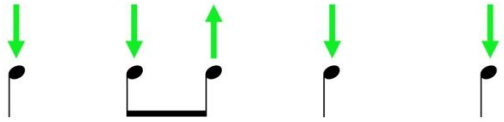
Example 2 - ***a minor***



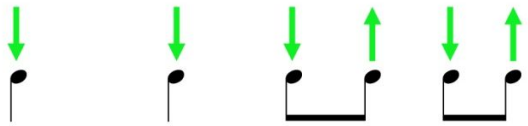
Example 3 - ***G Major***



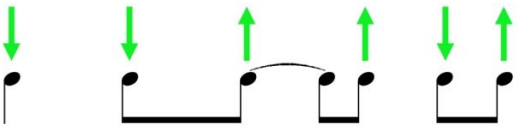
Example 4 - ***d minor***



Example 5 - ***D Major***



Example 6 - ***e minor***

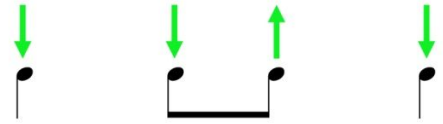


Notes can be "tied"together. In this example, the "tied" notes create two upbeats in a row.

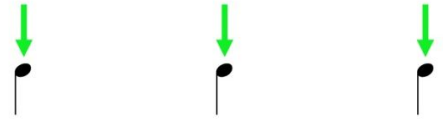
We've all heard live music where someone counts off "1, 2, 3, 4" before a song, but not all rhythms in music are based in even groups of two and four, even though these are the most popular. Some music is based in groups of three or six, which tends to have a triplet feel, or a

waltz-like feel when played more slowly. Here are a few examples of rhythms in groups of three. **(CD3 – Tracks 7, 8, & 9)**

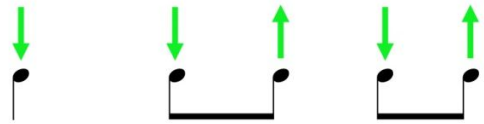
Example 1 - ***C Major***



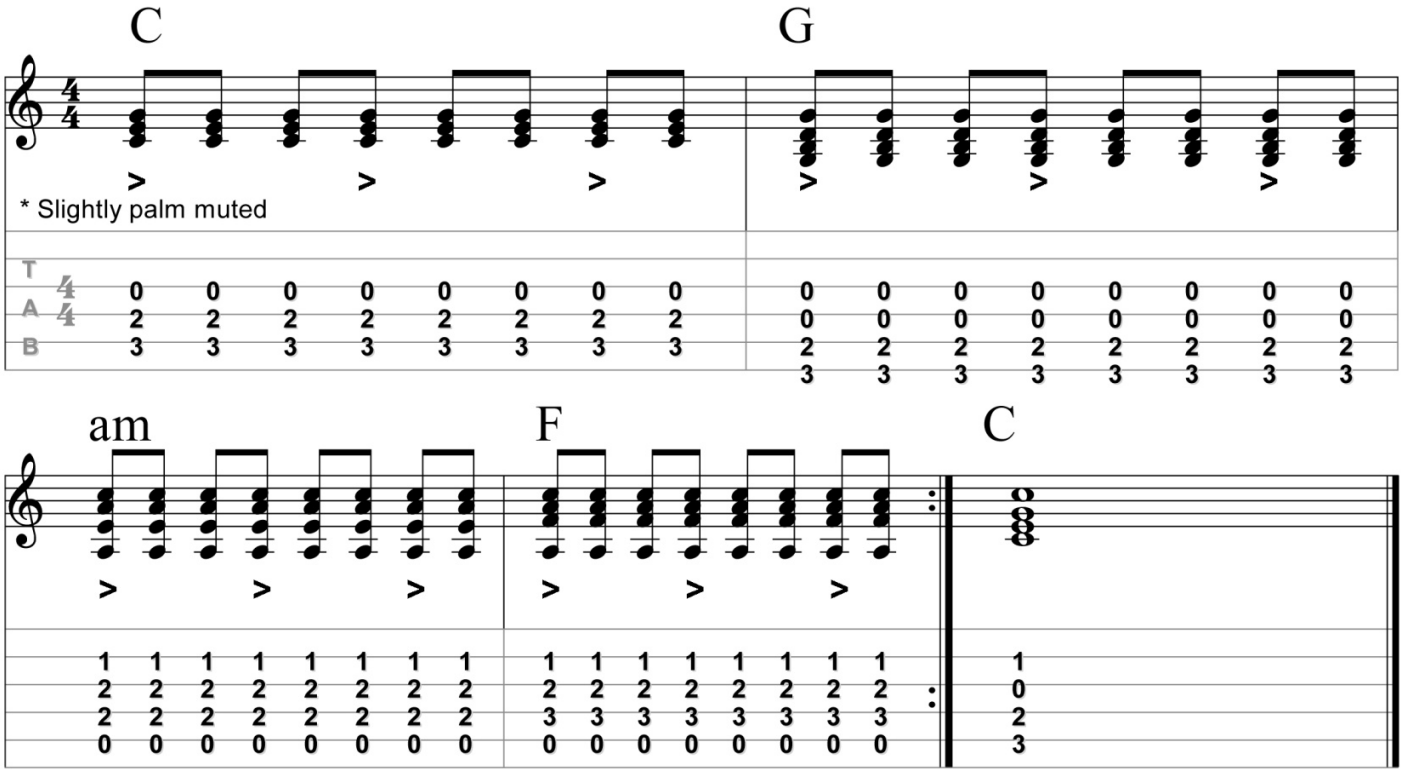
Example 2 - ***D Major***



Example 3 - ***e minor***

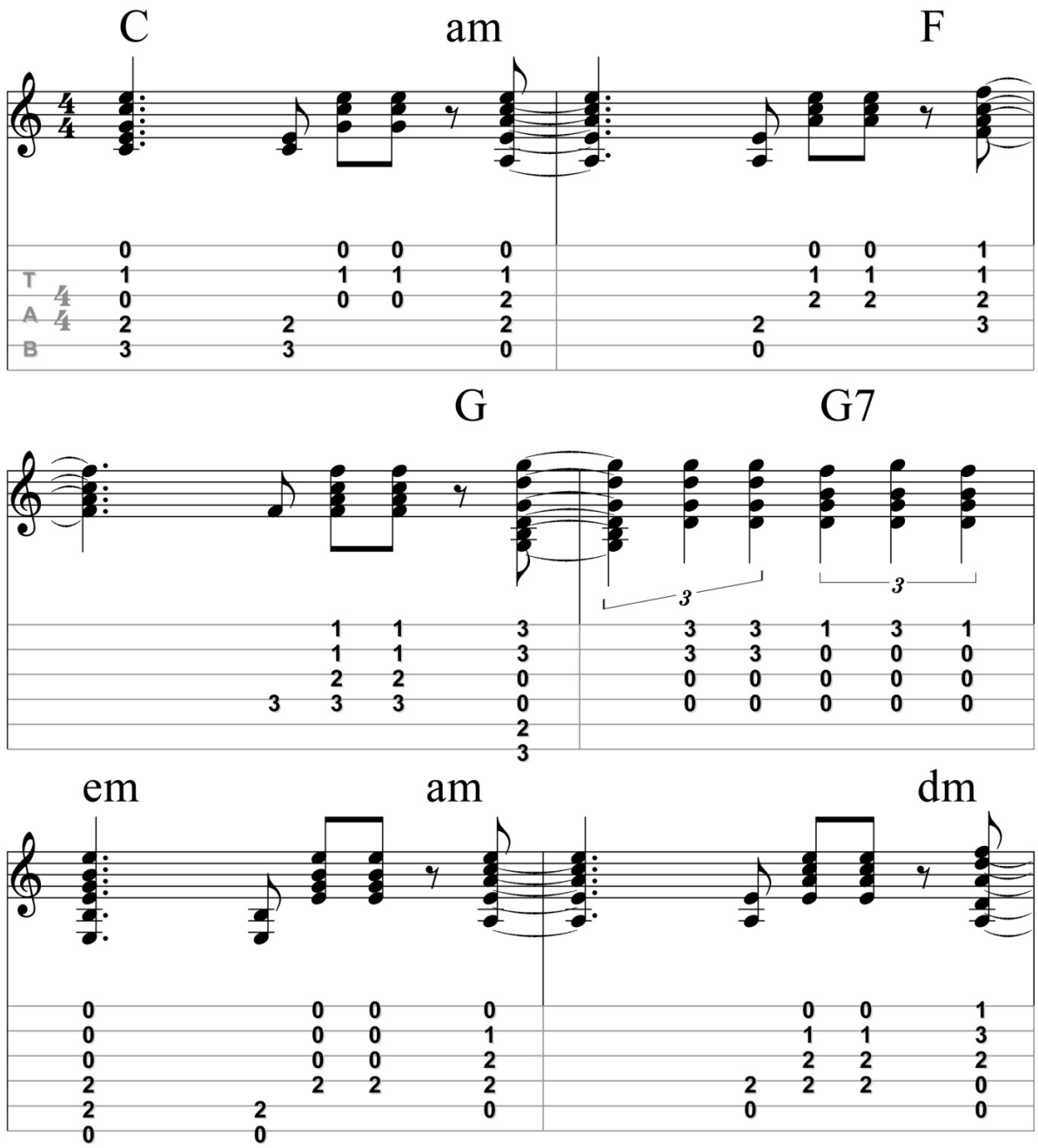


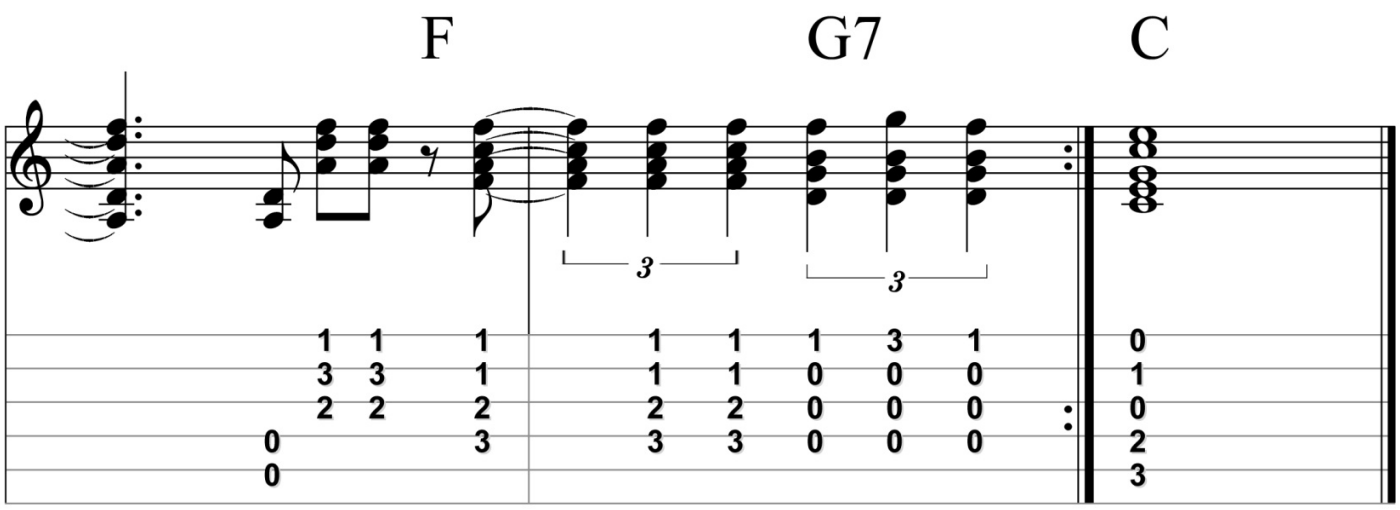
Accents are when you strike a particular part of the beat a little harder than usual to emphasise the rhythm, and they can be quite fun. Accents are usually notated with a “>” symbol. **(CD3 – Track 10)**



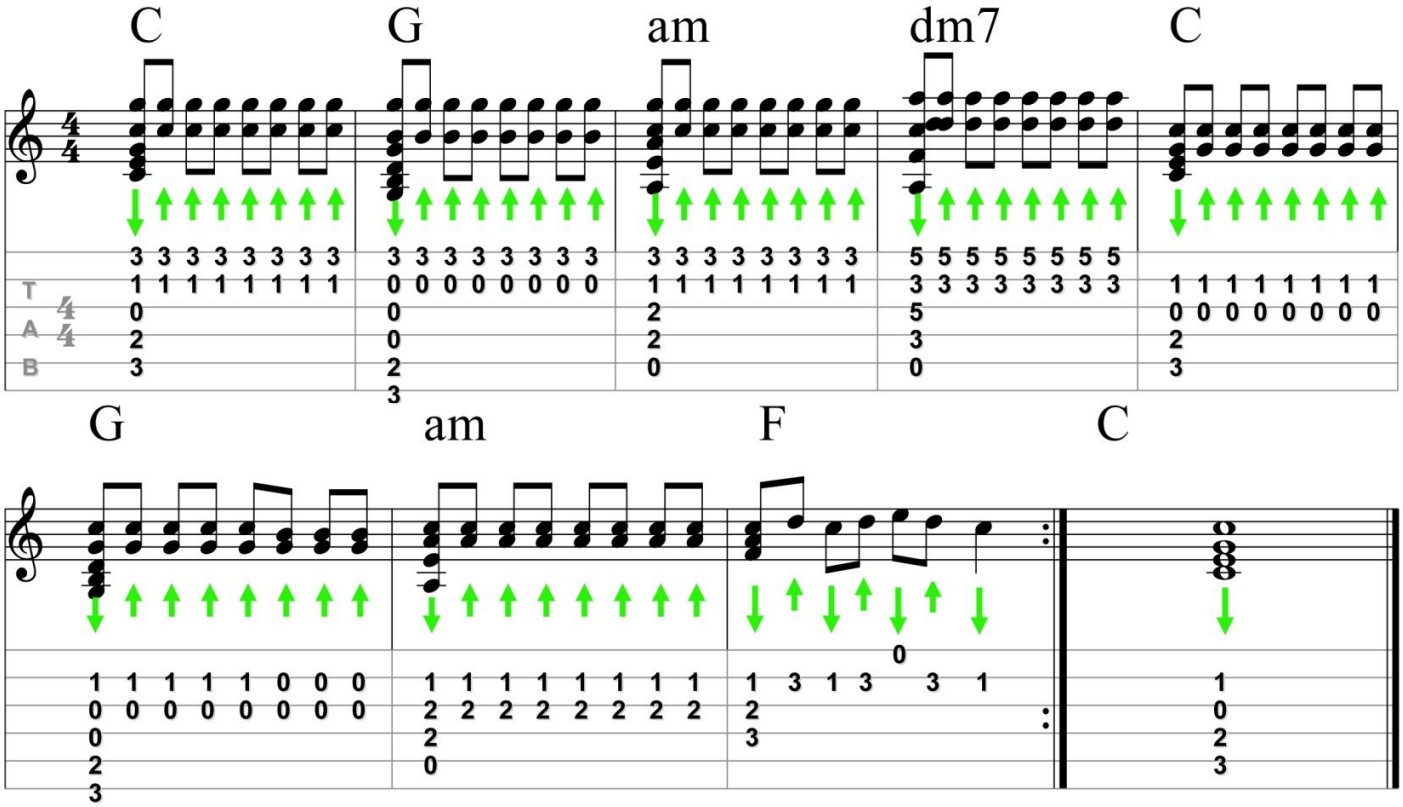
When strumming chords, it also helps to be able to break the chord up into at least two parts; the low end, and the high end. The low end will consist of the lower range notes, usually containing the root note, while the high end will consist of the higher range notes. This helps to create two voicings of the chord, and create an echo-like or “call and response” effect.

(CD3 – Track 11)





Downward strums have a slightly different sound to them than upward strums, because of the higher or lower strings they hit first and therefore emphasise. So it's ok to break the rule of alternate picking when you prefer a more consistent tone. After all, that's why we learn the rules; so we can learn to break them properly! **(CD3 – Track 12)**



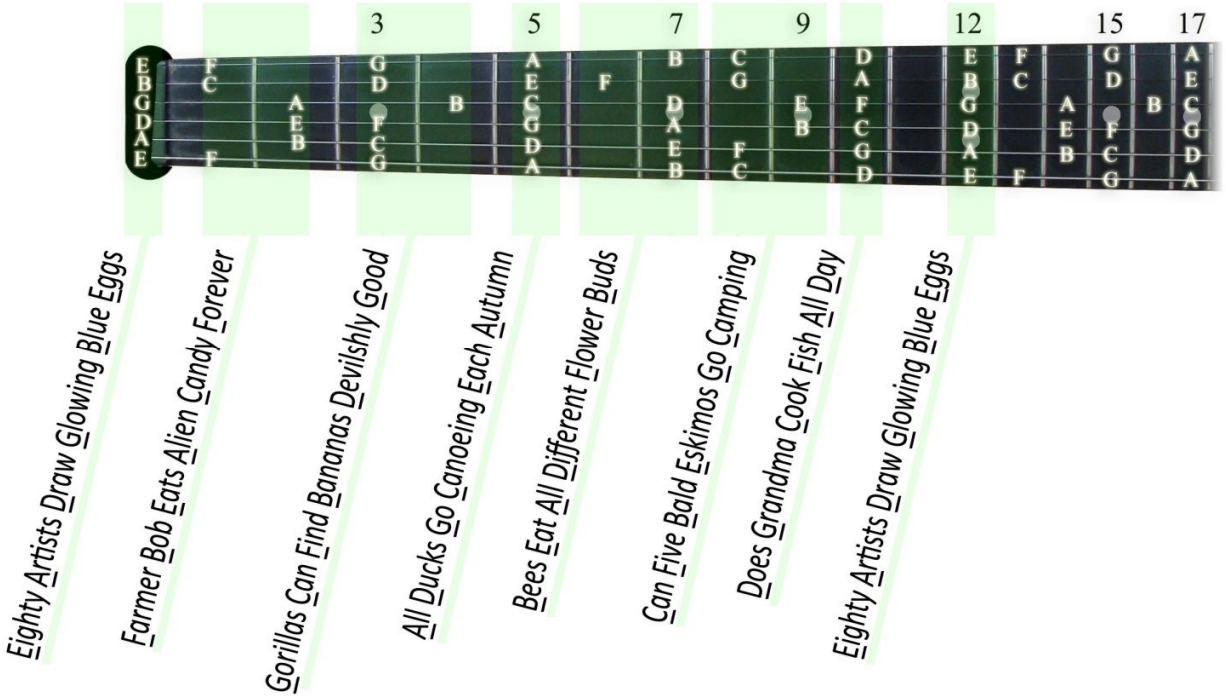
Memorizing the Notes on the Fret board

It is infinitely helpful to be able to look at the fret board and know each note at a glance. This is the one skill that will almost exclusively allow you to move from one position to another and in a variety of keys.

If you haven't yet taken the time to learn the names of the notes on the neck, here is a fun exercise that will help you learn them quickly. All that is required is that you learn the phrases *"Eighty Artists Draw Glowing Blue Eggs"*, *"Farmer Bob Eats Alien Candy Forever"*, *Gorillas Can Find Bananas Devilishly Good"*, *"All Ducks Go Canoeing Each Autumn"*, *"Bees Eat All Different Flower Buds"*, *"Can Five Bald Eskimos Go Camping?"*, and *"Does Grandma Cook Fish All Day?"*. – Sounds simple enough doesn't it?

Allow me to explain.

Take a look at the diagram below;



The strings in the open position are notes (E,A,D,G,B, and E), while frets 1 and 2 contain the notes (F,B,E,A,C, and F), frets 3 and 4 contain the notes (G,C,F,B,D, and G), fret 5 contains the notes (A,D,G,C,E, and A), frets 6 and 7 contain the notes (B,E,A,D,F, and B), frets 8 and 9 contain the notes (C,F,B,E,G, and C), and fret 10 contains the notes (D,G,C,F,A, and D).

Because the twelfth is one octave up from the open position, this entire pattern repeats on the other half of the neck. For example, notice how frets 13 and 14 are laid out exactly as frets 1 and 2. In other words, by the time you memorize the first half of the neck, you'll automatically know the second half.

Using acronyms, especially very goofy ones, can help you quickly memorize each sequence of notes. For example, the sequence F-B-E-A-C-F found within frets 1 and 2 can become "Farmer Bob Eats Alien Candy Forever."

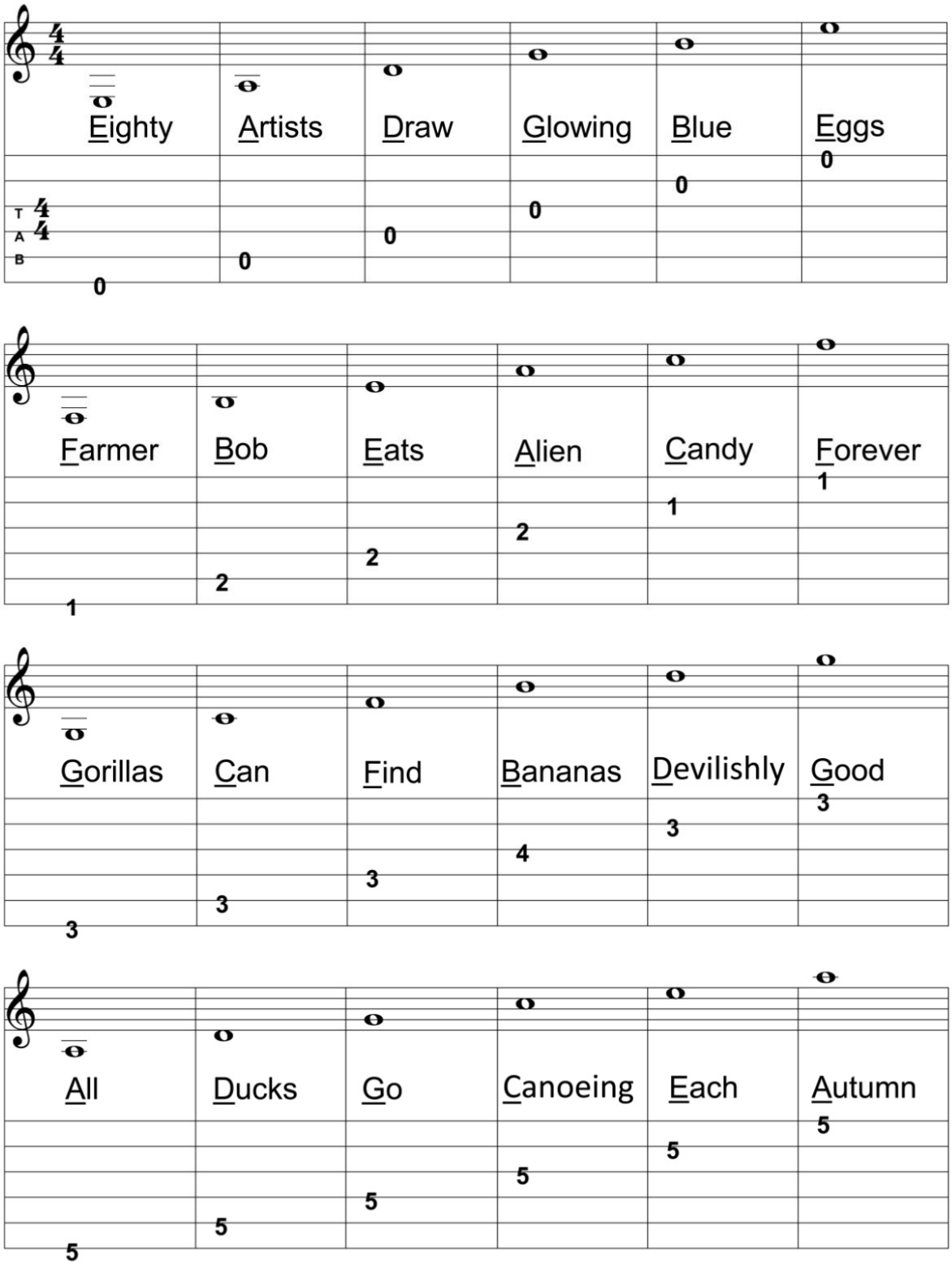
Play through each acronym one-by-one, slowly reciting the corresponding goofy phrase. You will be surprised at just how fun and easy it is to pick this up!

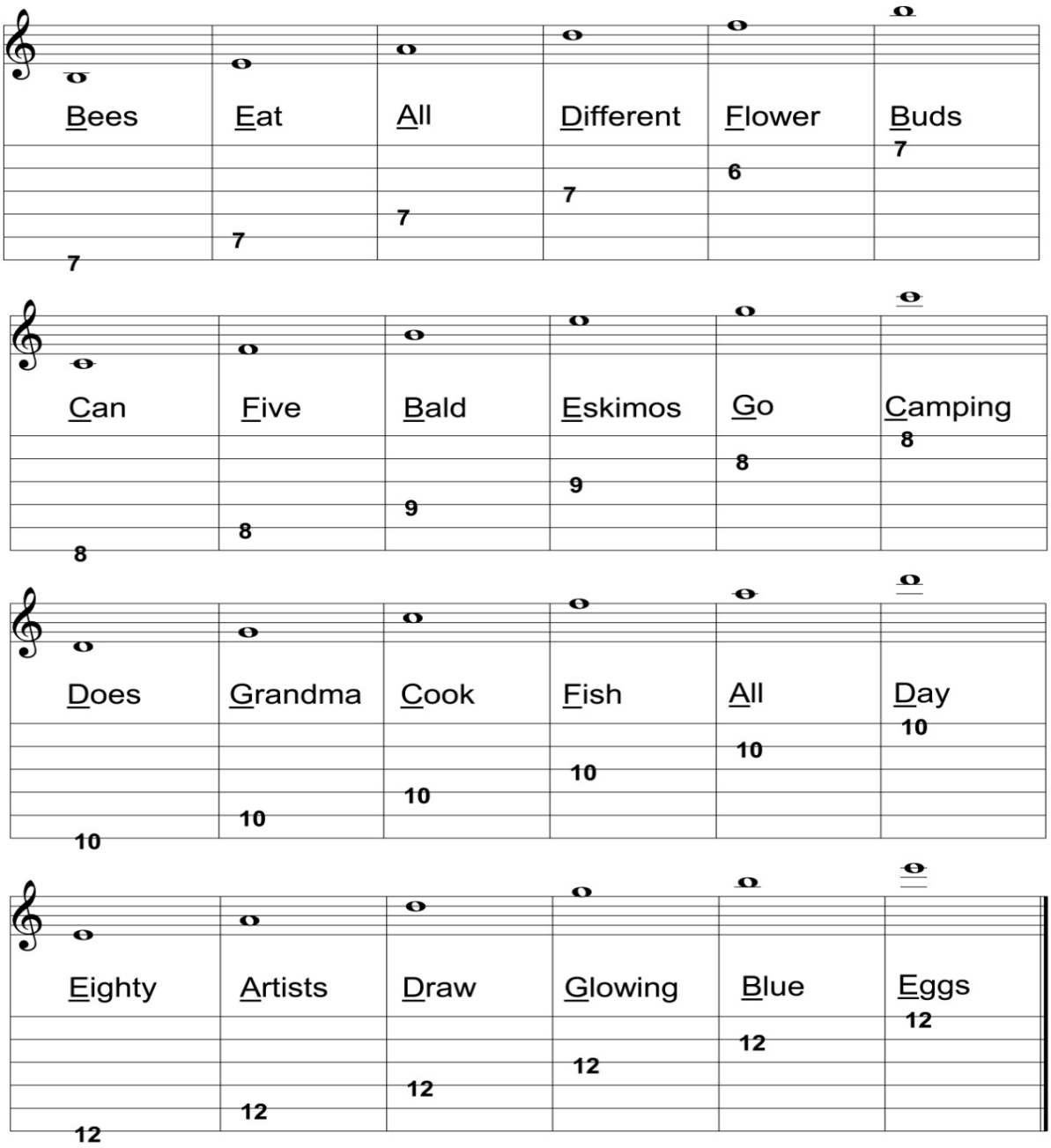
Helpful Tips;

- The strings are sometimes referred to as a number corresponding to their order from 1st through 6th, with the 1st string being the high E string, and the 6th string being the low E string.
- The frets are numbered starting from the end of the guitar neck.
- The diagram appears as if you were looking at your guitar while playing it.
- The patterns of where the notes repeat after the 12th fret, which is one octave higher than the notes on the open strings.
- This exercise is even more rewarding if you take the time to come up with your own acronyms
- Remember that notes are not the same thing as chords! A note is an individual pitch, while chords are a group of, usually, three or more notes played

(CD3 – Tracks 13 & 14)

"Farmer Bob's Alien Candy"





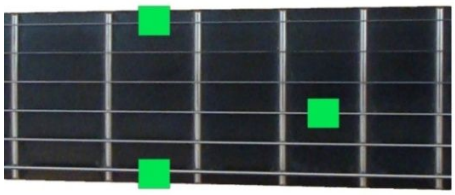
Helpful Tips;

- *As you play through each line, listen carefully to the individual character of each note. Learn what each note sounds like as well as where to find it.*
- *Play each line as often as you need to until finding the notes becomes second nature.*

The Five Positions of Octaves

Given any note or chord, there are only five positions on the guitar neck from which it can be played. This is an incredibly useful tool considering that there are over 600 chords and over 250 different scales that can be played on the guitar. Yet, everything you will ever do on the guitar boils down to understanding these five simple positions. These are the five positions from which a given root note is played with at least one other octave. (Root notes are the notes that define a chord or scale at its foundation. For example, in the C Major chord, the root note is the note C, from which, the rest of the chord gets its name.) In this book, I have labelled these as positions one through five. Add them to your warm-up routine and spend as much time as needed to get familiar with them. We'll be using these positions quite a bit throughout this book as we learn how to construct numerous scales and chords.

Position 1 occurs when the root note is located on the top, bottom, and fourth string.

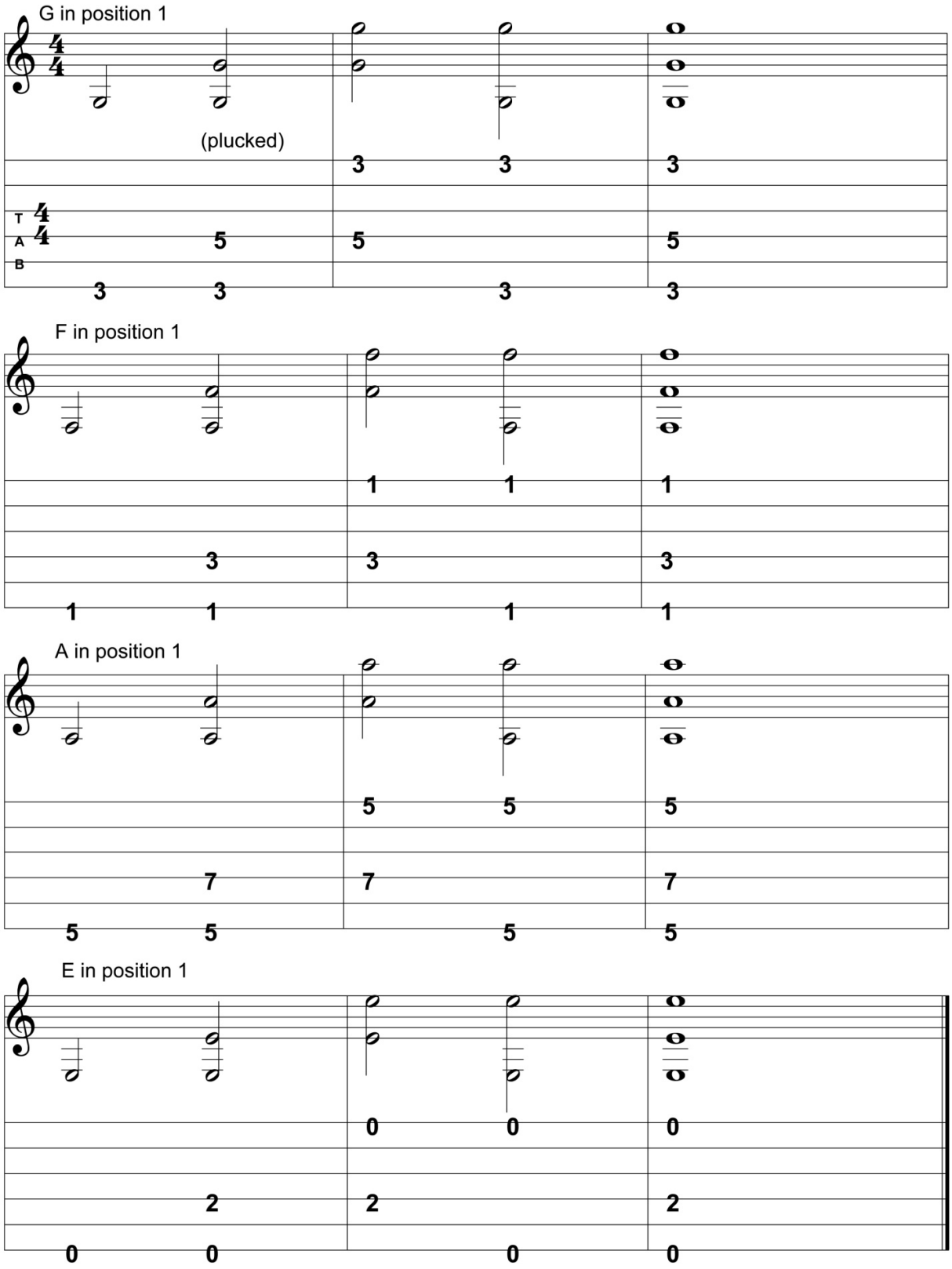


Most beginner guitar instruction will teach scales and barred chords in position one, where the root note is the lowest note found on the sixth string. The root note two octaves above, is found upon the same fret on the 1st string. This relationship provides an excellent foundation and frame of reference.

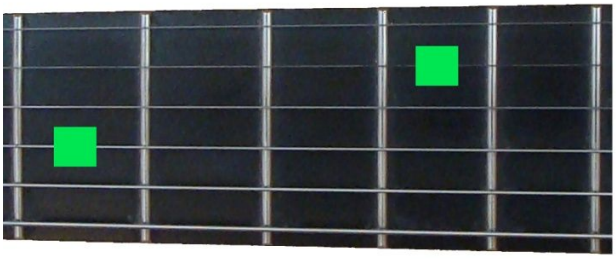
Helpful Tips for position 1;

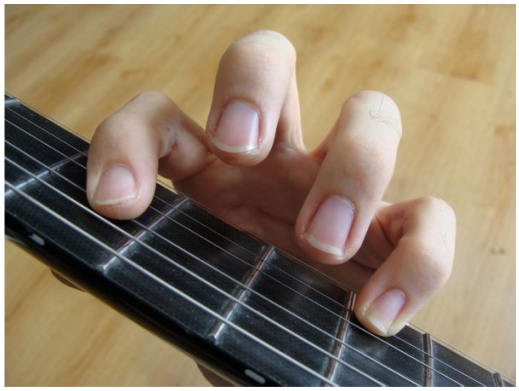
- *There is one fret in between the root notes on the first and sixth strings and the root note on the fourth string.*
- *There is one string in between the root note found on the 6th string and the root note found on the 4th string*
- *There are two strings in between the root note found on the 4th string and the root note found on the 1st string.*
- *The notes on the top and bottom string of a fret are always the same root note.*
- *In the open position, the notes E, F, and F# occur in position 1*

(CD3 – Track 15)

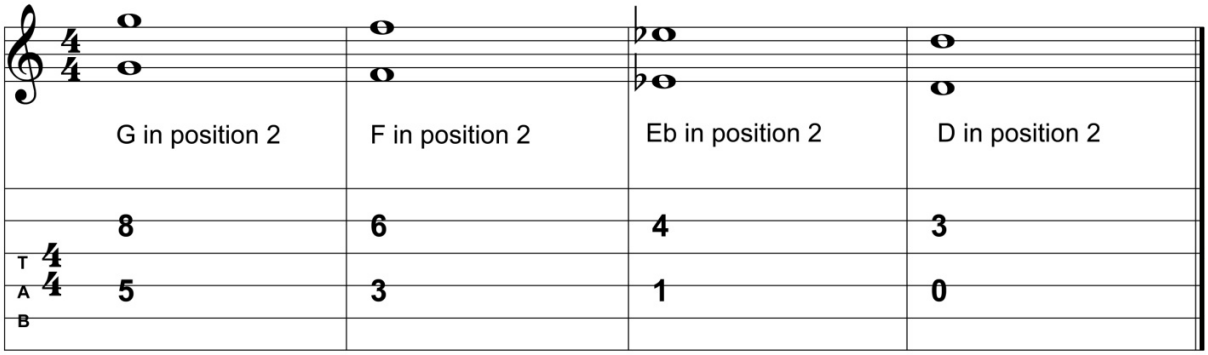

G in position 1
(plucked)
F in position 1
A in position 1
E in position 1

Position 2 occurs when the root note is located on the fourth and second strings.





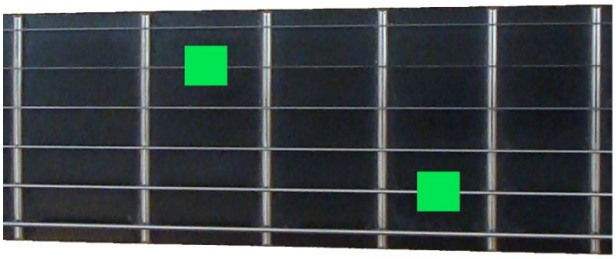
(CD3 - Track 16)



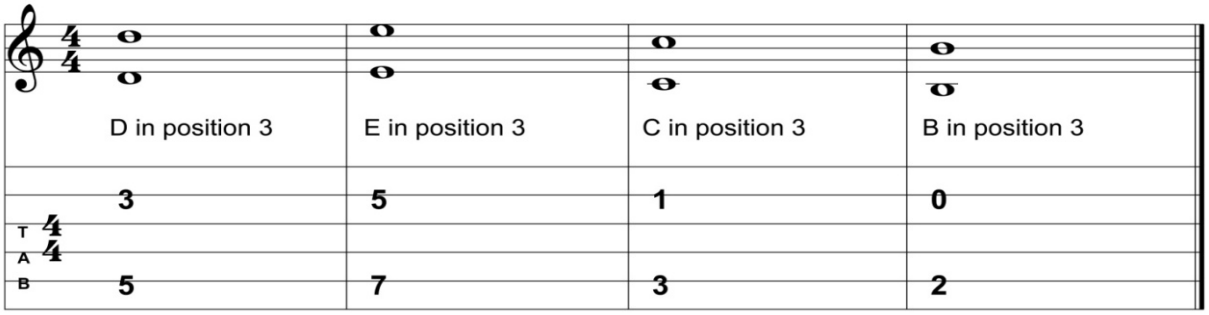
Helpful Tips for position 2;

- *There are two frets and one string in between the root note on the fourth string and the root note on the second string.*
- *In the open position, the notes D and Eb occur in position 2*

Position 3 occurs when the root note is located on the second and fifth strings.



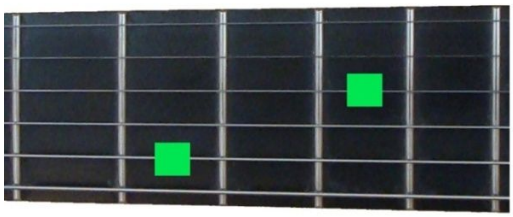
(CD3 – Track 17)

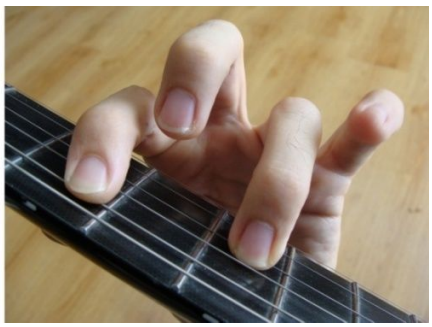


Helpful Tips for position 3;

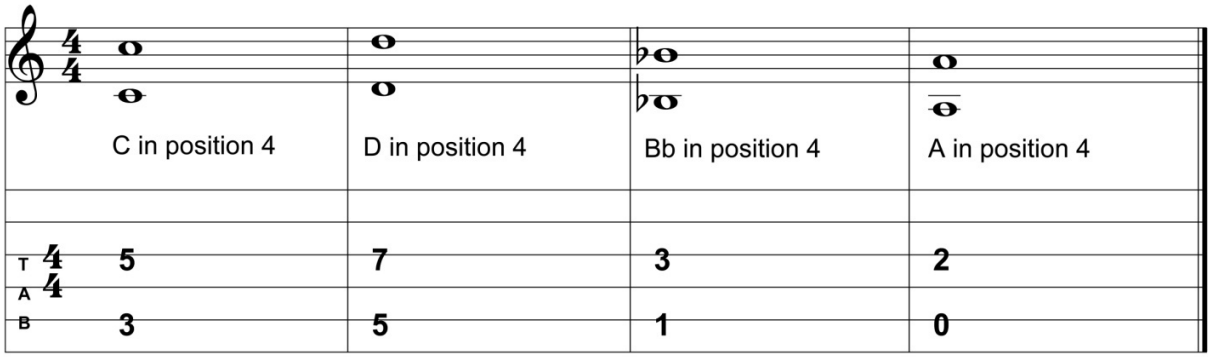
- *Notice how this position seems to fall upon a reverse diagonal*
- *The two notes are two strings apart with one fret in between*
- *In the open position, the notes B, C, and C# occur in position 3*

Position 4 occurs when the root note is located on the fifth and third strings.





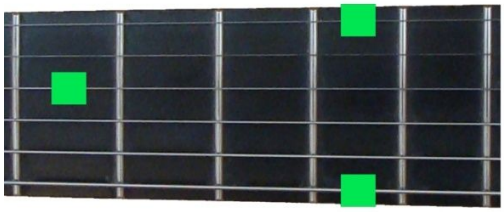
(CD3 – Track 18)



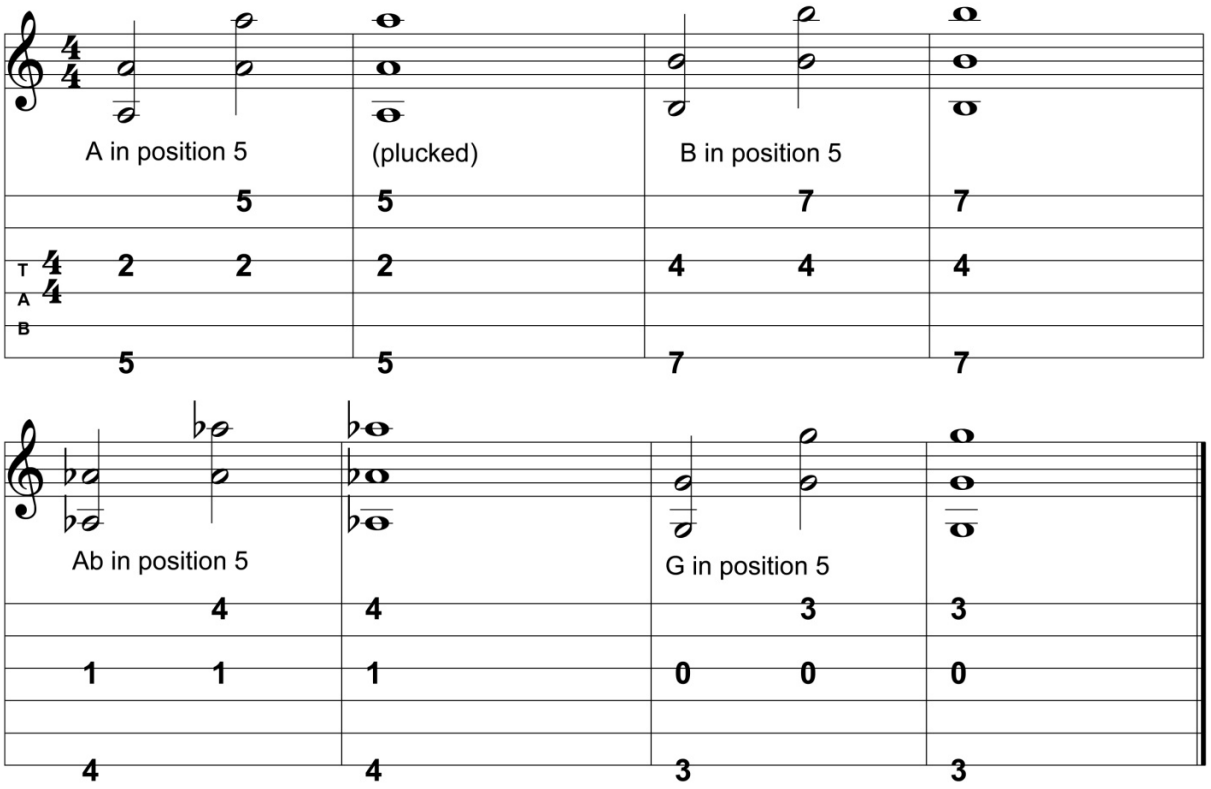
Helpful Tips for position 4

- *The two notes are one string apart with one fret in between*
- *In the open position, the notes A, B♭, and B occur in position 4*

Position 5 occurs when the root note is located on the third, first, and sixth strings.



(CD3 – Track 19)

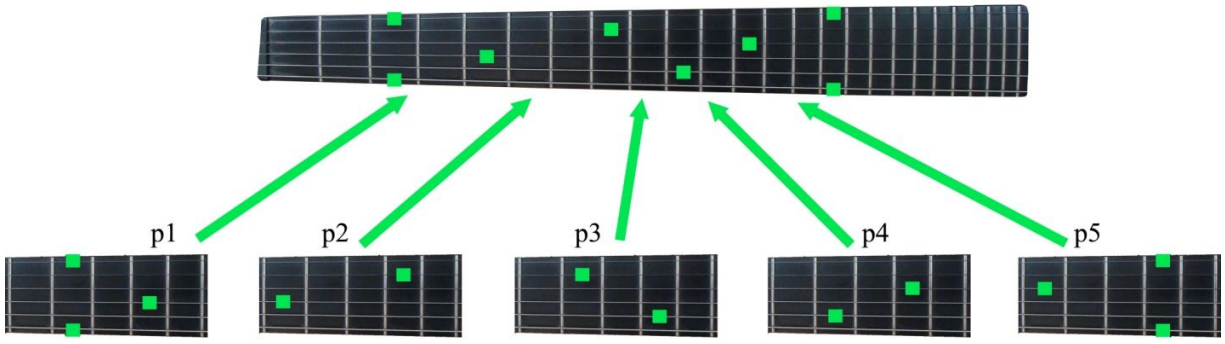


Helpful Hints for Position 5;

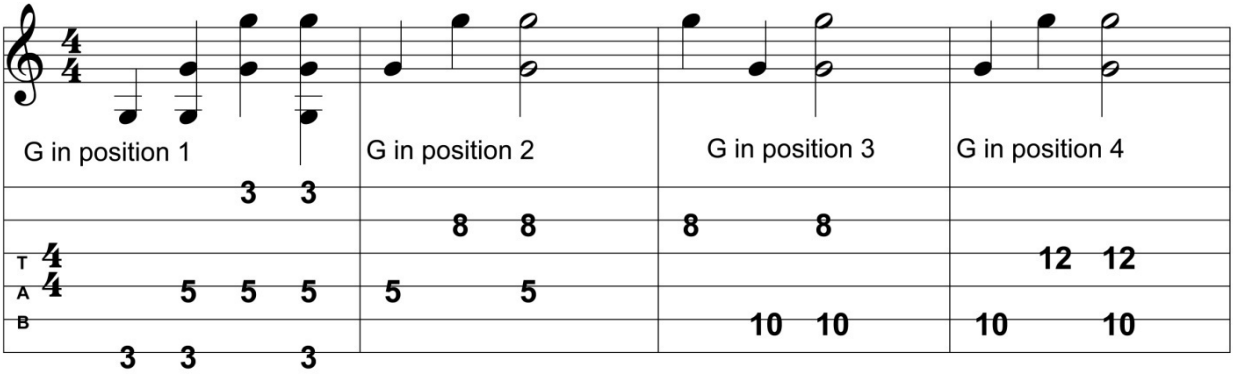
- *Position 5 is similar to position 1 in that there are three root notes occurring in this position, two of which occur on the 1st and 6th strings, two octaves apart and upon the same fret.*
- *There are two empty frets in between.*
- *Position 5 is the position just behind position 1 before the 5-position cycle repeats.*
- *In the open position, the notes, G and A♭ occur in position 5*

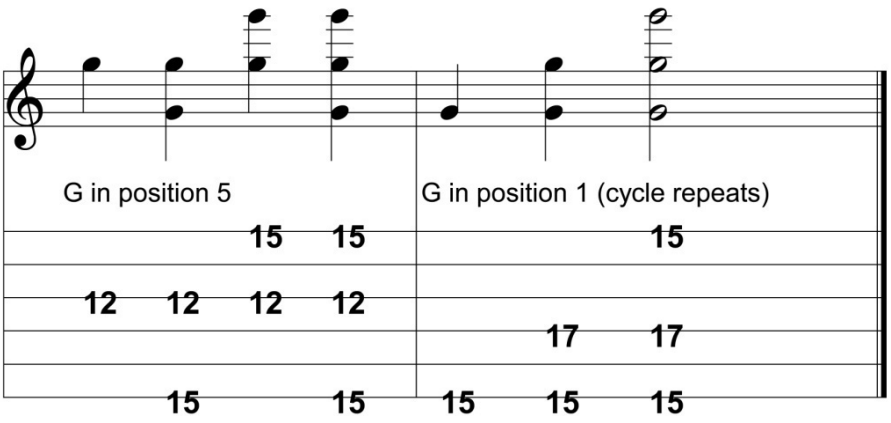
Moving up the neck with any given root note, these positions will cycle from one through five before the pattern repeats.

The 5 Octave Positions on the Fret Board (example octaves of G)



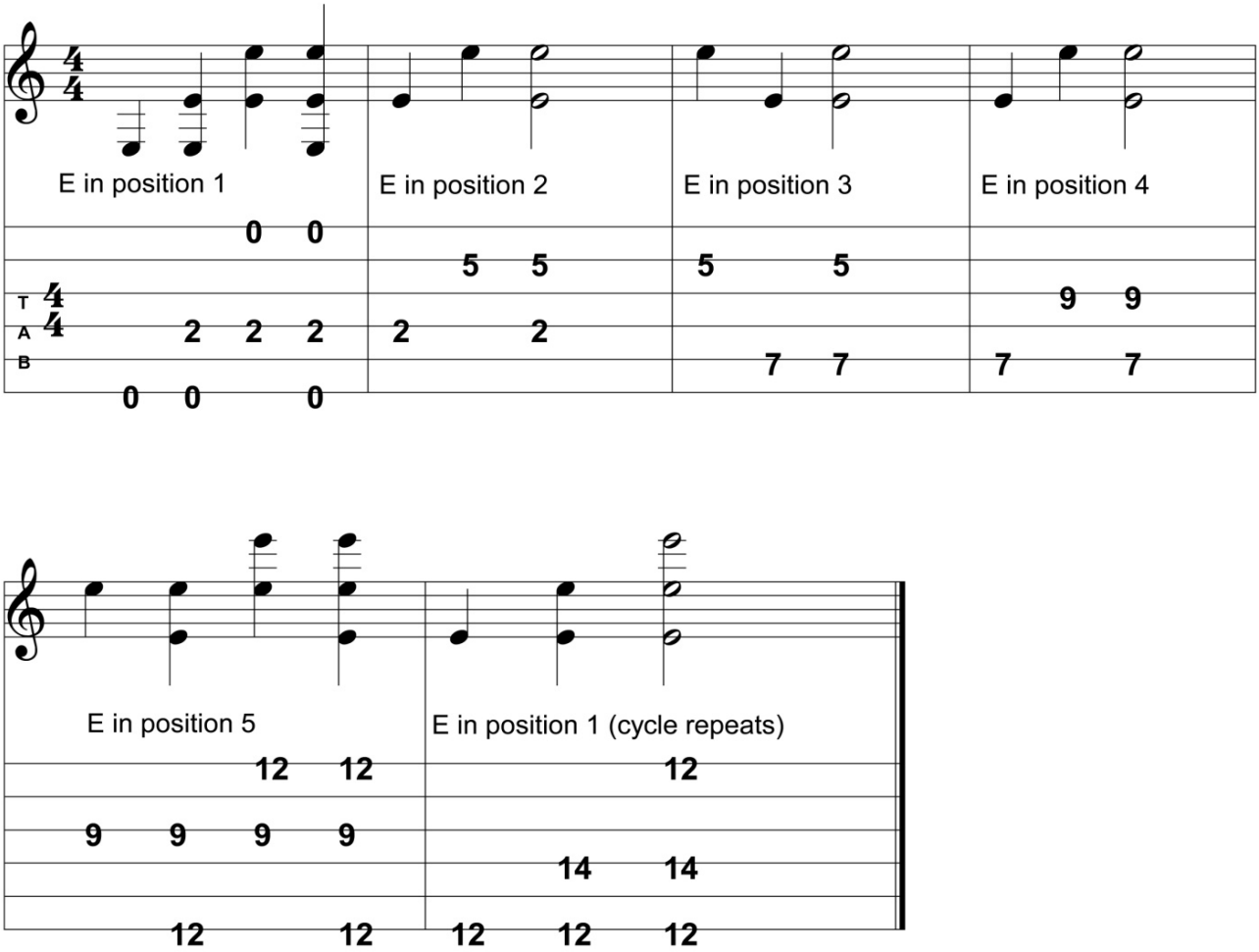
(CD3 – Track 20)





The five positions are not fret-number specific, meaning that they are found on the neck anywhere a given root note may be found. For example, position 1 for the note F occurs on the 1st and 13th fret, while position 1 for the note D occurs on the 10th and 22nd frets. Position 1 for the note E is located in the "open".

(CD3 – Track 21)



Helpful Tips for the 5 Octave Positions;

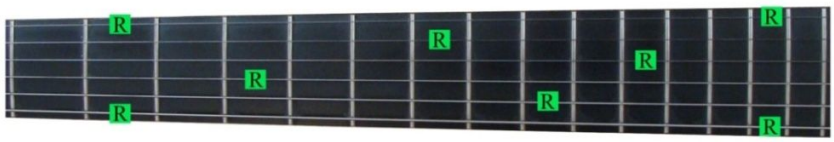
- *Cycle through these 5 positions as part of your warm-up routine.*
- *Practice playing all five positions with all 12 notes of the chromatic scale*
- *Remember these 5 simple positions for when we study scales, intervals, and chord inversions. We'll refer to them frequently throughout the book.*

What is a root note map?

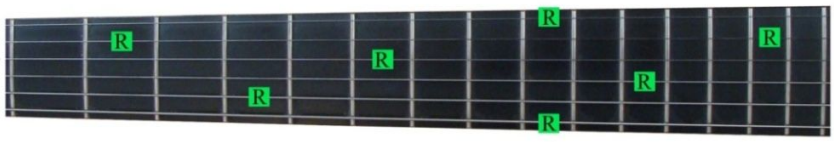
Linking the five positions together in order, we can create an abstract map of the fret board that we'll call a "root note map". Because all scales and chords use the same underlying structure, root note maps can be shifted to be applied to any root note in any key. Think of them as one big movable shape.

In the top diagram, we've mapped out position one through position 5. Often though, we play somewhere on the neck between positions 1 and 5, so rather than darting our eyes back and forth trying to reference the very ends of the root note map and running off the edges of the map, we've created another map that starts at position 3 and goes through position 2. So now if we want to have a point of reference when moving between P1 and P5 and etc., we can do so more easily.

From P1 to P5



From P3 to P2 (inverted)



It's important to remember that, just as the five positions are not fret-specific but rather note-specific, the root note map follows the same logic. It can be shifted left or right upon the fret board to fit any given set of root notes. For example, if we're talking about the root note of G, the top chart would begin at the third fret, where the root note G is found on the first and sixth strings, while the bottom chart would begin at fret eight, where the root note G is found on the second string.

Of course, this system is much easier to use if you've already memorized the names of the notes on the fret board and where to find them. But if you're still working on this and/or need to go back and review, at least the root note map gives you a point of reference, where, for example, if you know how to find at least one G note, you can follow the pattern to locate the others. – in this way, it can be used as a learning tool for getting to know the fret board in the way you'll need to if you want to be able to improvise in any variety of keys.

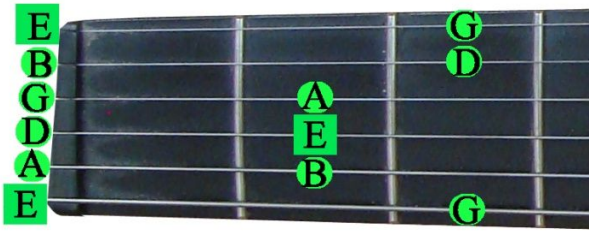
To improvise, or even just to understand better what it is that you happen to be playing, this system allows you to quickly internalize scales and chords by locating them more easily.

What Is A Scale?

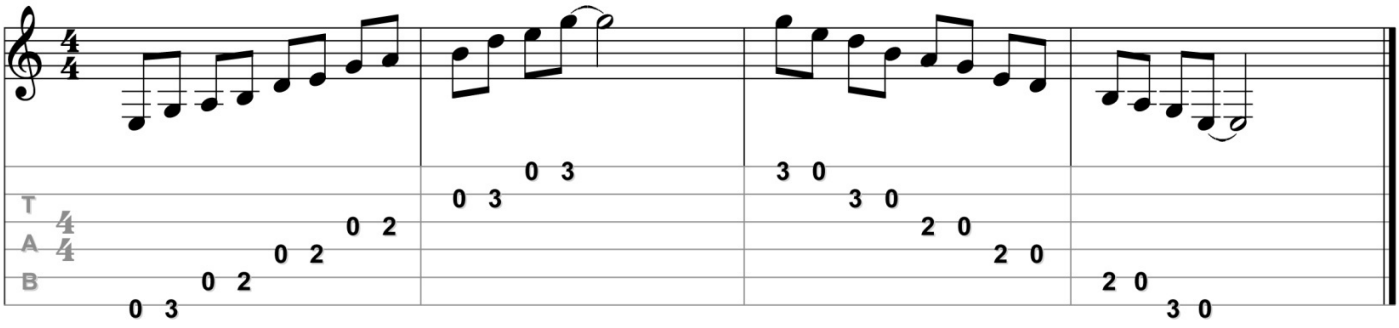
A scale is a group of five to seven notes chosen to be the central focus of a piece of music. An example of a seven-note scale is a major scale.

A simpler example of a scale is the five-note or “pentatonic” scale, which is created with intervals 1, ♭3, 5, and ♭7 on the musical compass. The pentatonic scale originated in ancient eastern music, and is still used in oriental music of today. However, because of its simplicity, and therefore broader compatibility, it has been adapted over the years for blues and even rock music. For example, the blues scale is created by using the notes of the pentatonic scale plus an added flat fifth interval, or “blue” note. Early rock n’ roll originally began to evolve into modern rock by simply speeding up traditional blues licks.

Here’s an example of the E pentatonic scale in the open range (within the first five frets). Notice how, because the root note E is found on the top, bottom, and fourth string, that this is an example of a scale pattern in position 1. Even though there are 12 notes within the pattern, there are only 5 notes within the scale (E, G, A, B, & D) and multiple octaves of these notes can be used.

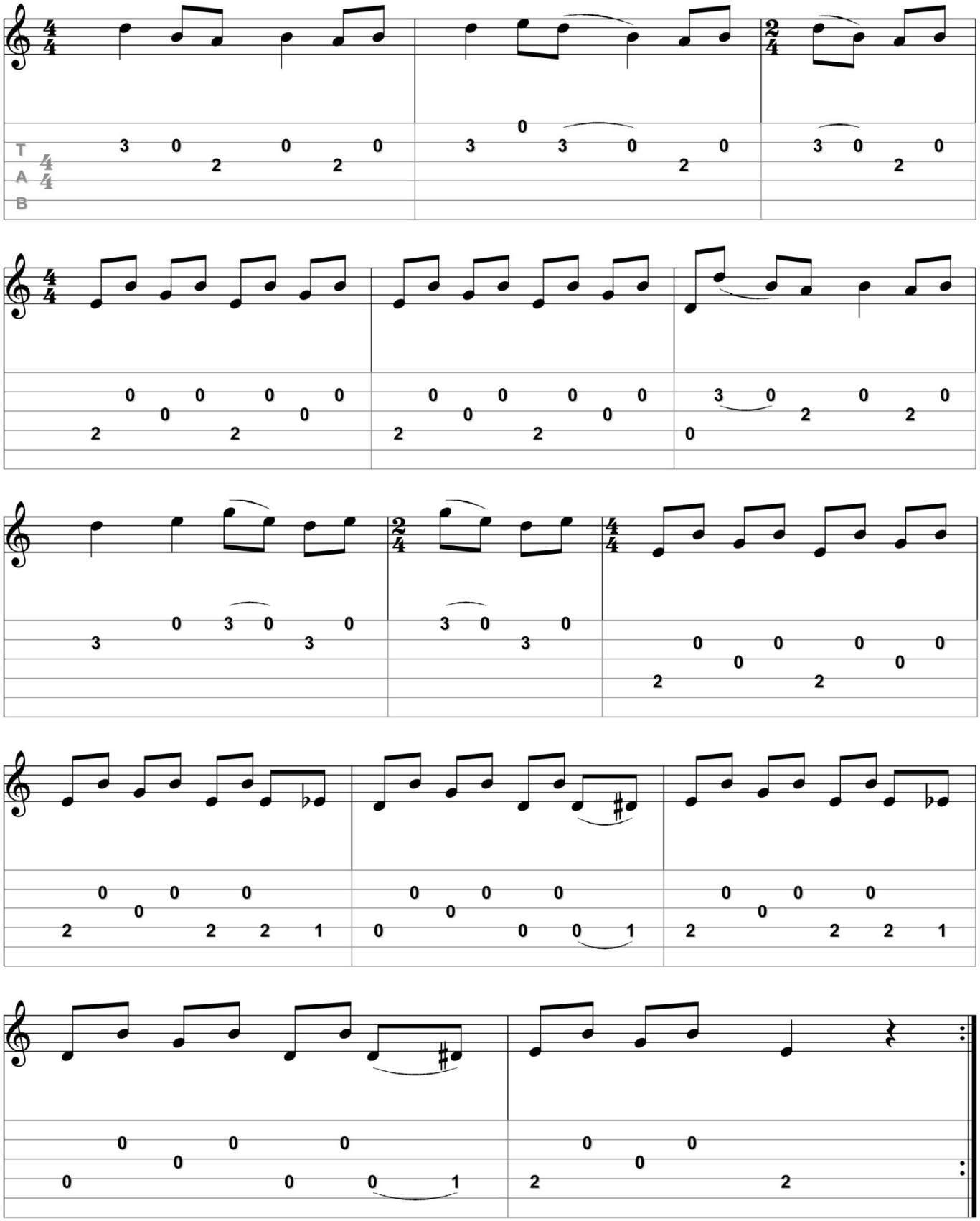


Play the E pentatonic scale slowly up and down. **(CD4 – Track 1)**



In the next exercise, we’ll study how this scale can be turned into music. Every note except for the E♭/D# note, used to “walk down” moving from E to D, is native to the E pentatonic scale. **(CD4 – Track 2)**

The Dragon Boat Song



The Formula for a Major Scale

Major keys are the most common and widely used type of key. The structure of the major key is even used in reference when referring to the minor keys and all types of chords.

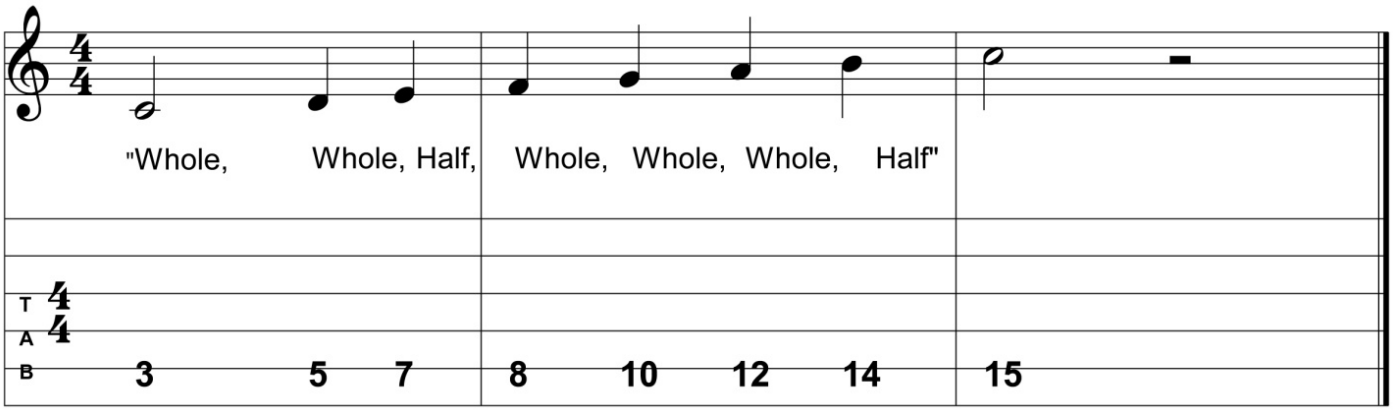
When you look at the note wheel, all of the natural notes, i.e. notes that are neither sharps nor flats, represent what would be all the white keys on the piano, the key of C Major. Because of its simplicity, C Major is one of the easiest keys for song-writers to compose in, and probably the most frequently used of all 12 major keys.

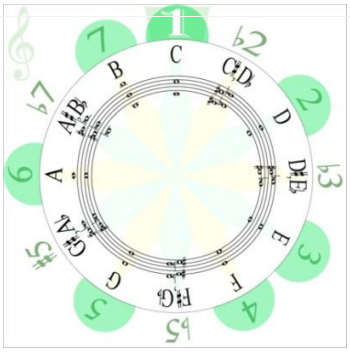
The notes comprising the C Major scale are (C,D,E,F,G,A, and B). All of the chords (groupings of, usually, three or more notes played simultaneously) and scale patterns from the key of C are derived from these seven notes.

It is beneficial to observe the number of steps between each degree of the scale to the next. Any major scale will follow the same whole-step/half-step pattern. For example, from C to D is a whole step, D to E a whole step, E to F a half step, F to G a whole step, G to A a whole step, A to B a whole step, and B to C a half step.

Therefore, the spacing between each note of all major scales, beginning from the root note of the scale and moving up, is as follows; whole, whole, half, whole, whole, whole, half.

Exercise – "One String Scale" – Play the C Major scale all upon the 5th string while saying the words "whole step" and "half step" out loud. **(CD4 – Track 3)**





Turn your musical compass to the root note of C. Notice how the notes of the C Major scale (C, D, E, F, G, A, B) fall upon the following intervals (arranged in a circle surrounding the note wheel); (Root, 2, 3, 4, 5, 6, and 7).

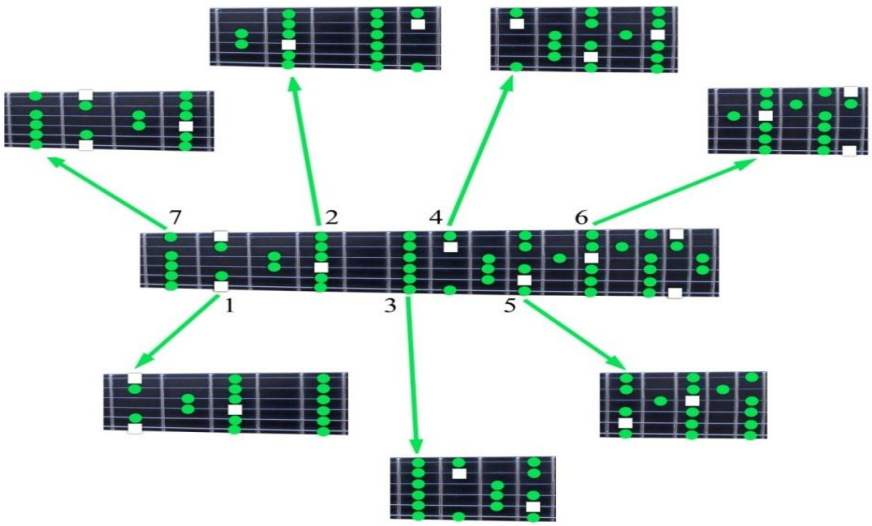
Exercise – Use the note wheel to find the seven notes of each major of the 12 major keys. Afterwards, locate where the notes of each major scale fall within the first five frets, and incorporate each scale into your warm-up routine. This will prepare you for the next section on modes (seven major scale patterns), where we'll learn how all the major scales consists of seven recurring patterns.

For each of the following Major keys, turn the dial on your musical compass to each root position and observe which notes the following intervals fall upon; (2, 3, 4, 5, 6, and 7)

7 Major Scale Patterns

As far as learning scales goes, it is beneficial to break down the major scales into seven recurring patterns. You can even think of the starting point (in position 1) of each pattern as corresponding to the root notes of each of the seven modes, (the traditional name given to each degree of a scale). All seven patterns will occur in sequence within a major scale, and are all a part of the same greater sequence.

These seven patterns have been labelled according to the corresponding mode of each starting position. This is for labelling and reference purposes only. One can use all seven patterns when improvising in any modal progression. This is because scales tend to be very linear (up and down in a line). It is the chord progression that creates a mode and makes it multi-dimensional. However, if you do happen to be improvising in a modal progression, labelling these seven patterns as such also helps to give you a starting point.



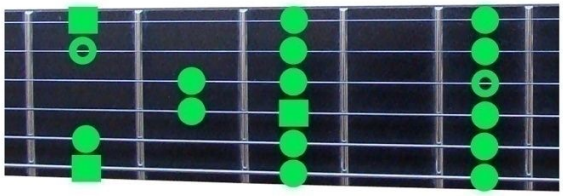
Helpful Tips;

Keep these three things in mind for learning the seven major key patterns

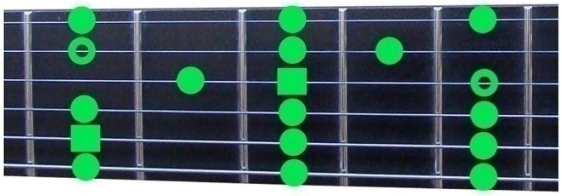
- *What degree of the scale does the starting point represent?*
- *Where can you find the root note of your parent key within each pattern?*
- *How and in what order do each of the seven major scale patterns connect to one another?*

Seven Major Scale Patterns

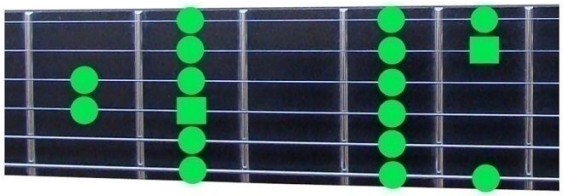
1) Ionian



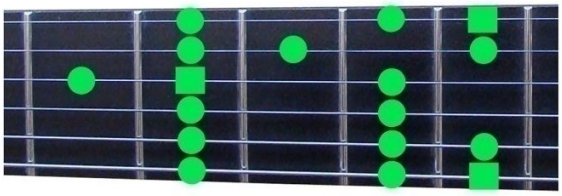
5) Mixolydian



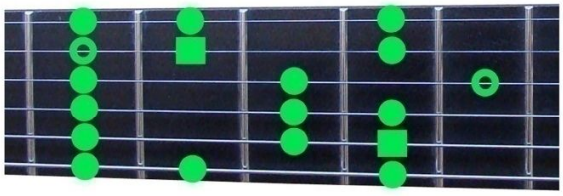
2) dorian



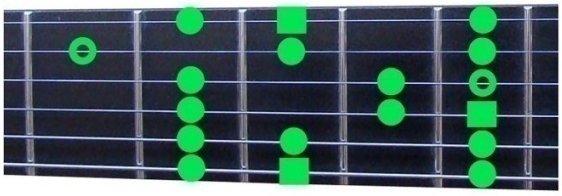
6) aeolian



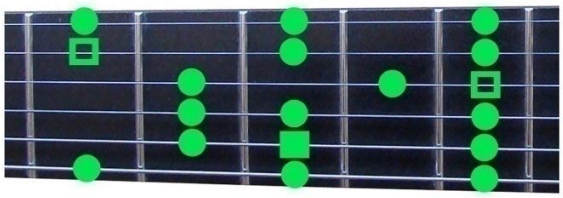
3) phrygian



7) Locrian



4) Lydian



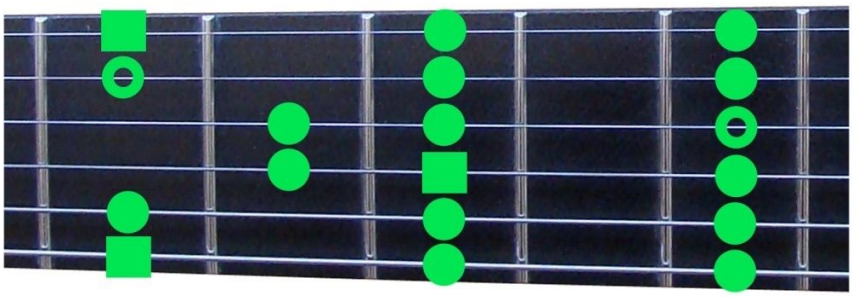
Legend

- Note found in scale
- Root note of parent key
- Duplicate set of notes
- Duplicate root notes of parent key

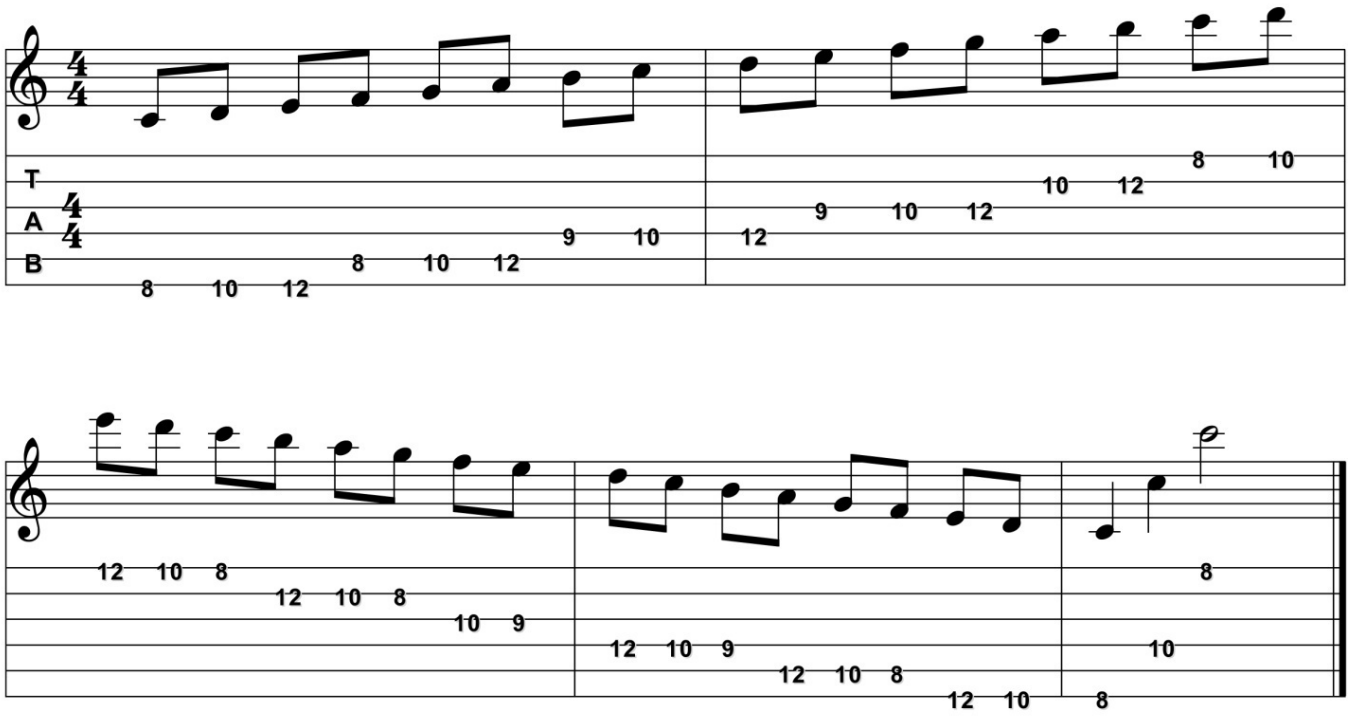
Pattern 1

"Ionian"

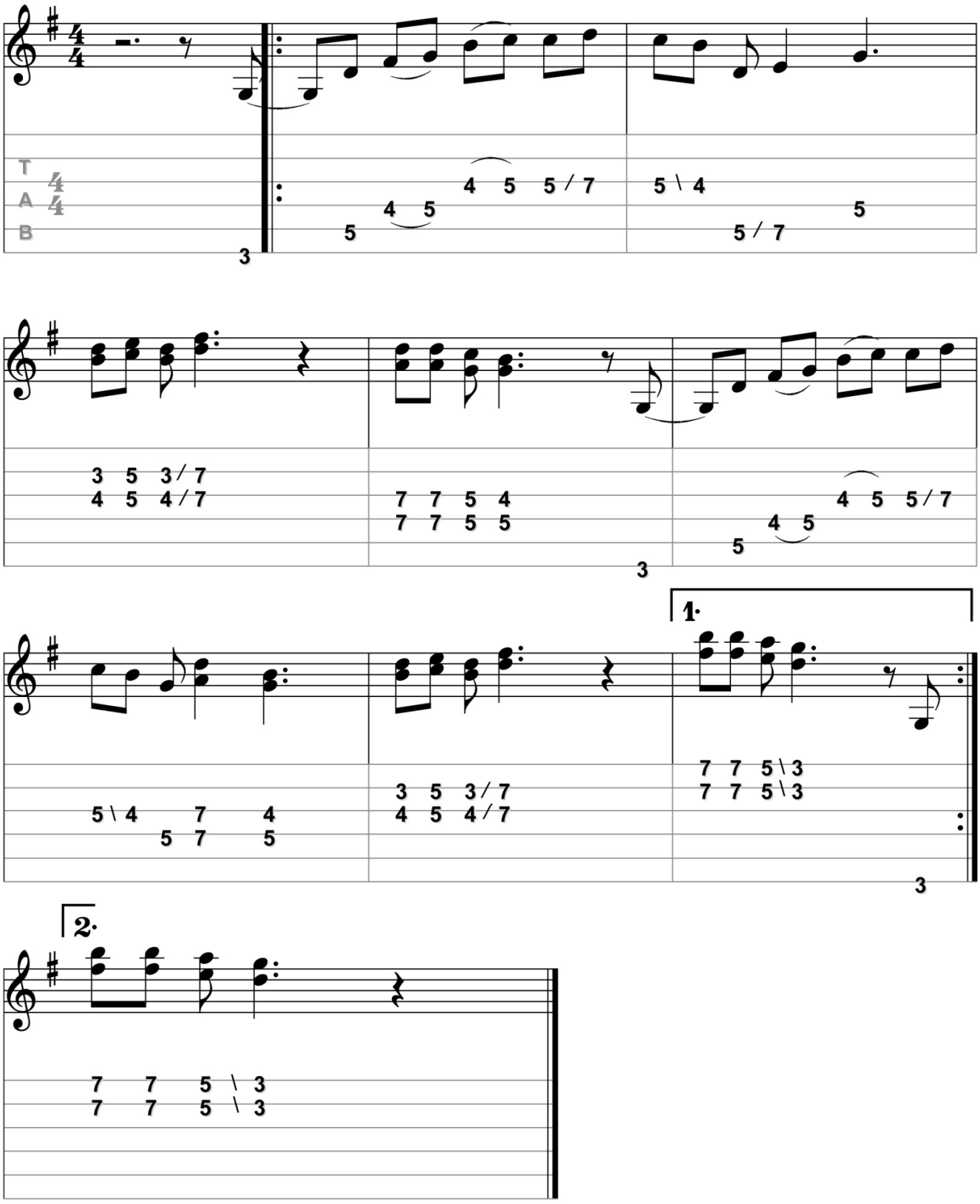
An Ionian scale represents the first degree of a major key. Using the musical compass, an Ionian scale is created by turning the dial to the desired root position and selecting the intervals 1, 2, 3, 4, 5, 6, and 7. **(CD4 – Track 4)**



Example – C Ionian pattern from the key of C major. **(CD4 – Track 4)**



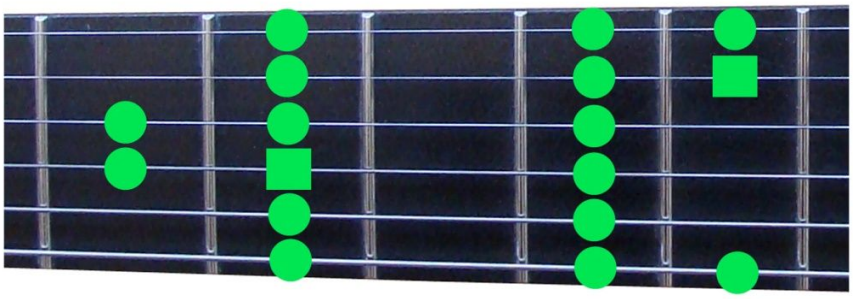
Exercise – Here is an example of a G Ionian melody, the first mode of the G Major scale. In the key of G, the Ionian pattern is located between frets three through seven. **(CD4 – Track 5)**



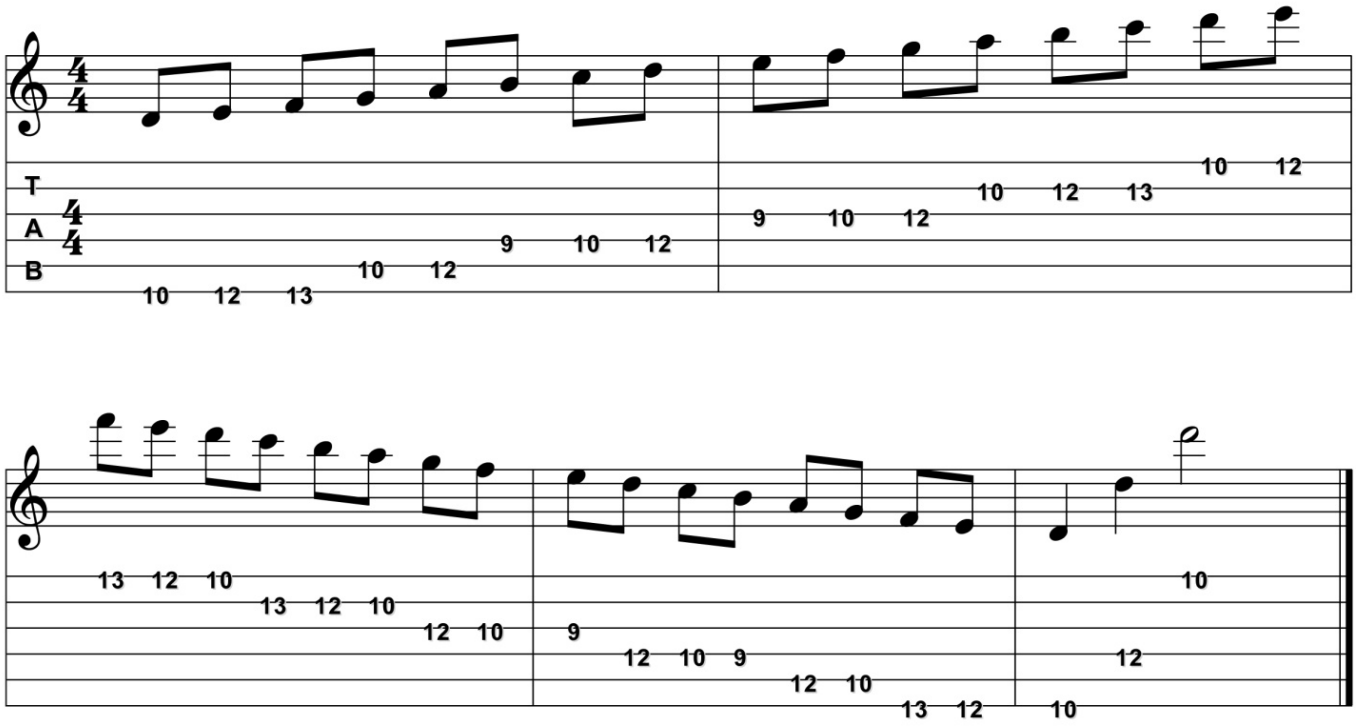
Pattern 2

"Dorian"

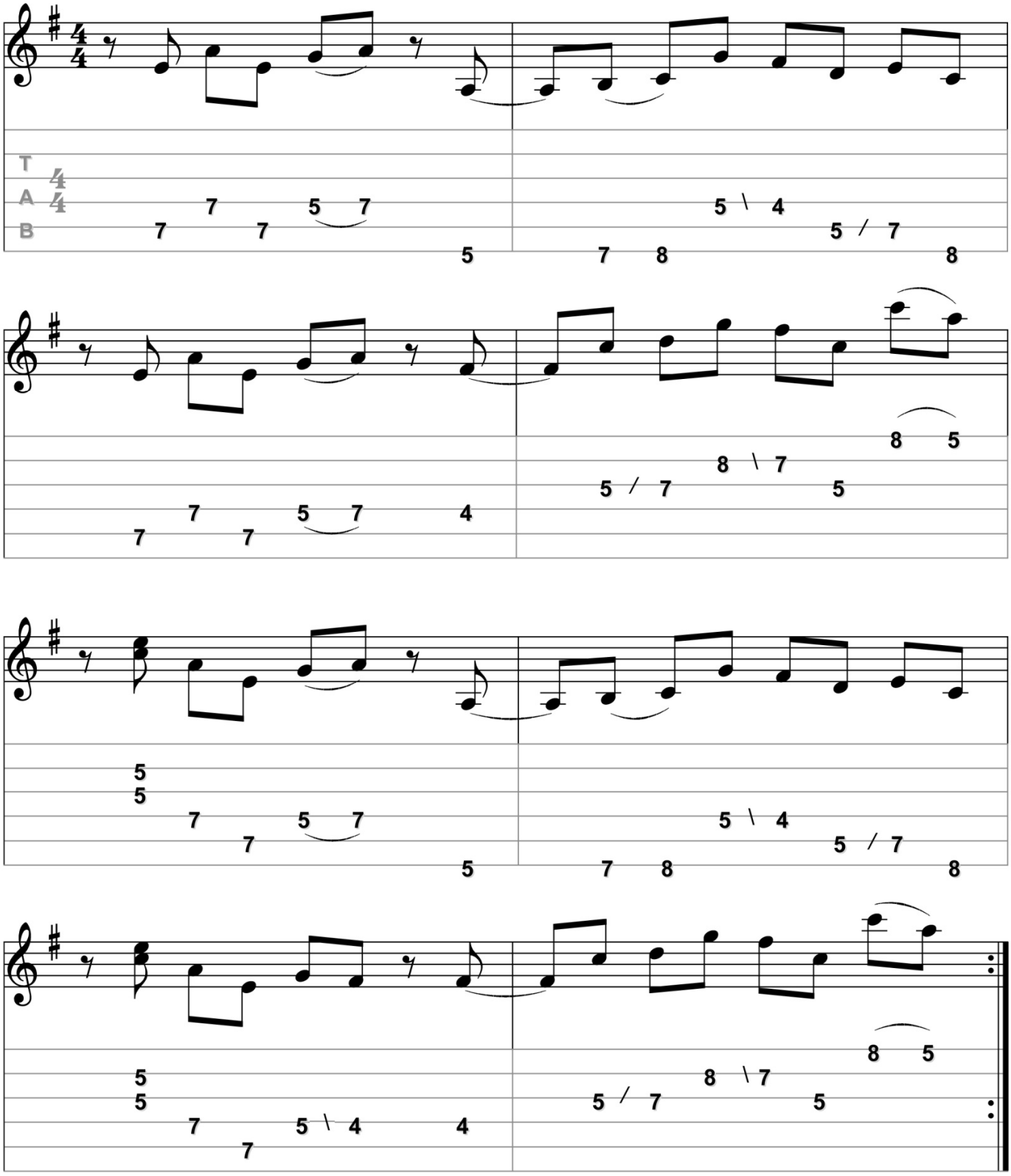
A dorian scale is based upon the second degree of a major key, and is used frequently in a lot of blues and rock music. Using the musical compass, a dorian scale can be constructed by turning the dial to the desired root note and selecting the intervals 1, 2, ♭3, 4, 5, 6, and ♭7. Within the dorian pattern, the root note of the parent key is located in second position.



Example – d dorian pattern from the key of C major. **(CD4 – Track 6)**



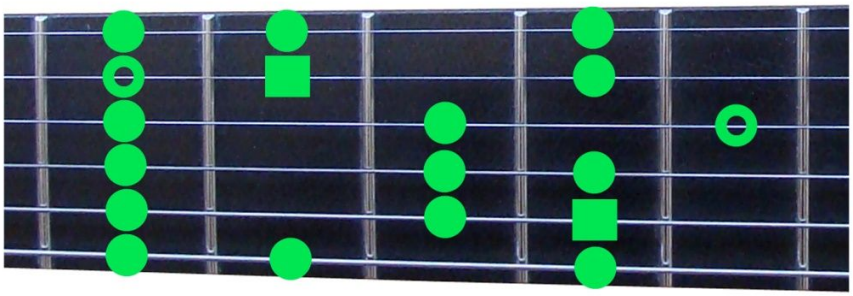
Exercise – Here is an example of a a dorian melody derived from the parent key of G major. In the key of G Major, the dorian pattern is located between frets four through seven. **(CD4 – Track 7)**



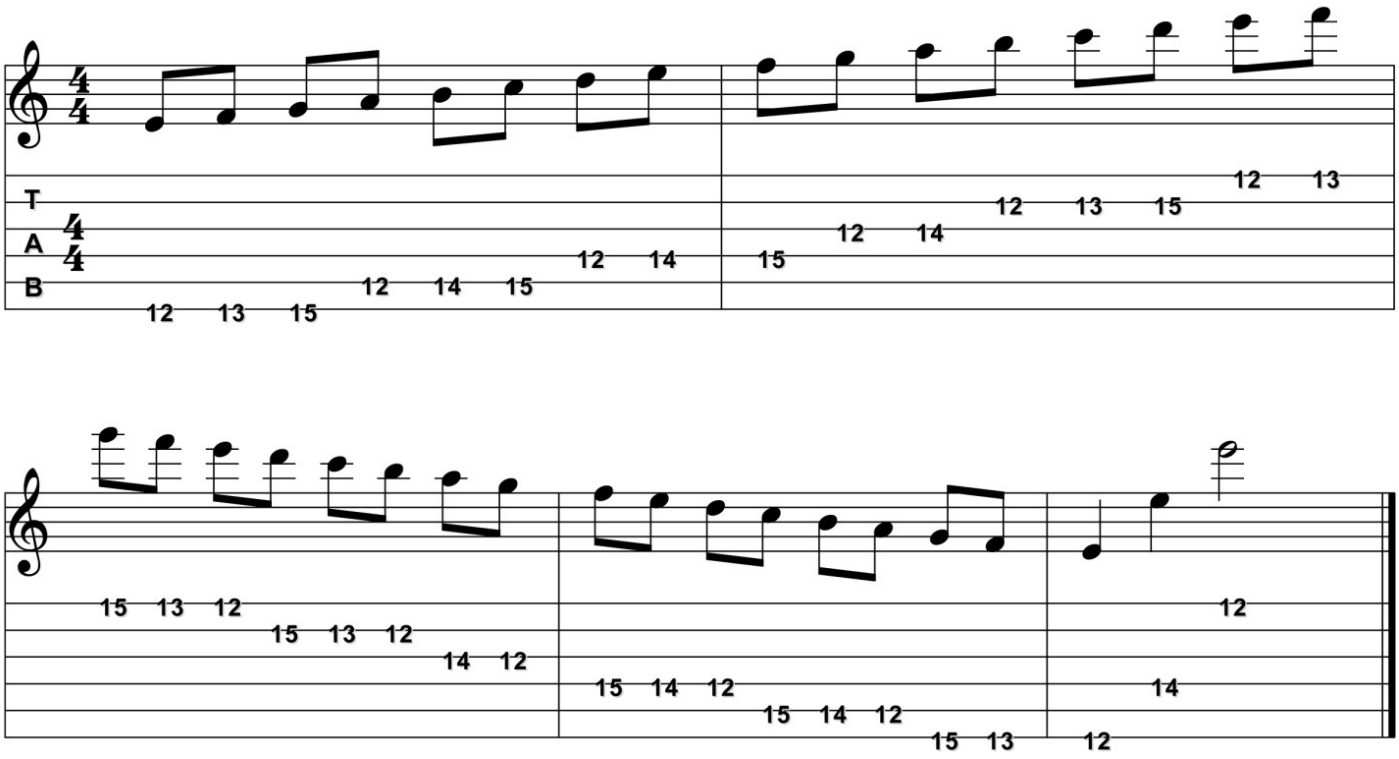
Pattern 3

"Phrygian"

A phrygian scale is based upon the third degree of a major key, and tends to sound somewhat Spanish. Using the musical compass, a phrygian scale is constructed by turning the dial to the desired root note and selecting the intervals 1, ♭2 (same as ♭9), ♭3, 4, 5, ♭6, and ♭7. Within the phrygian pattern, the root note of the parent key is located in third position.

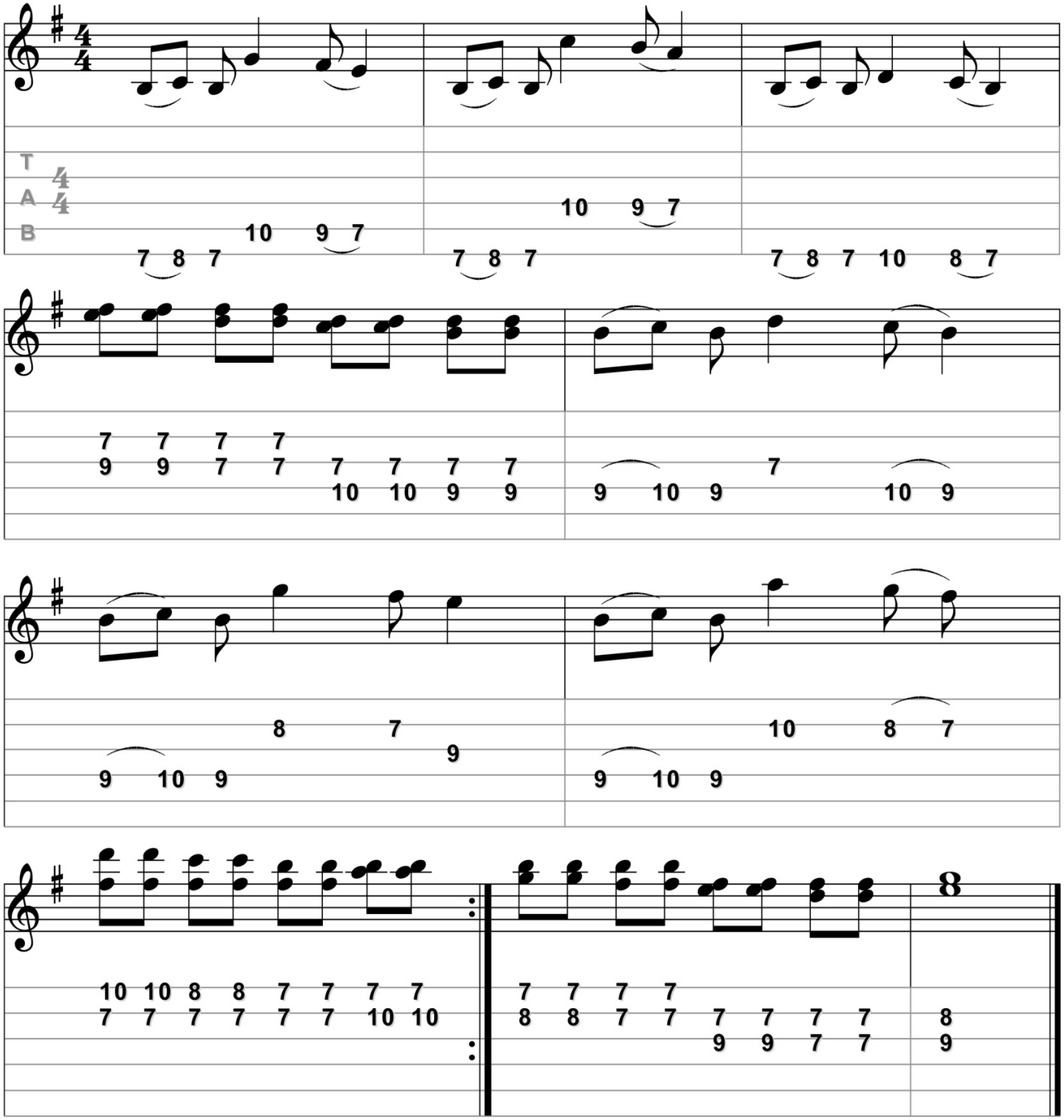


Example – e phrygian pattern from the key of C major. **(CD4 – Track 8)**



Exercise – below is an example of a melody in b phrygian derived from the parent key of G major. In the key of G major, the phrygian pattern is located between frets seven and ten.

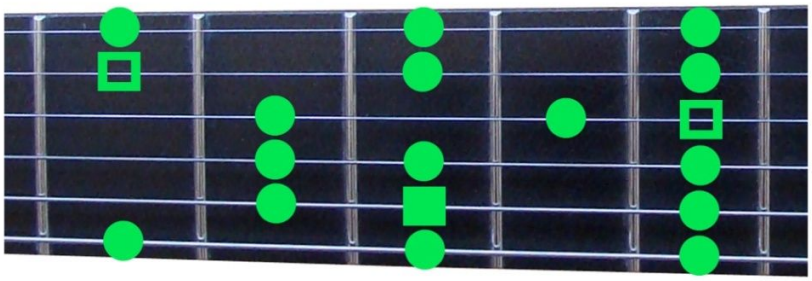
(CD4 – Track 9)



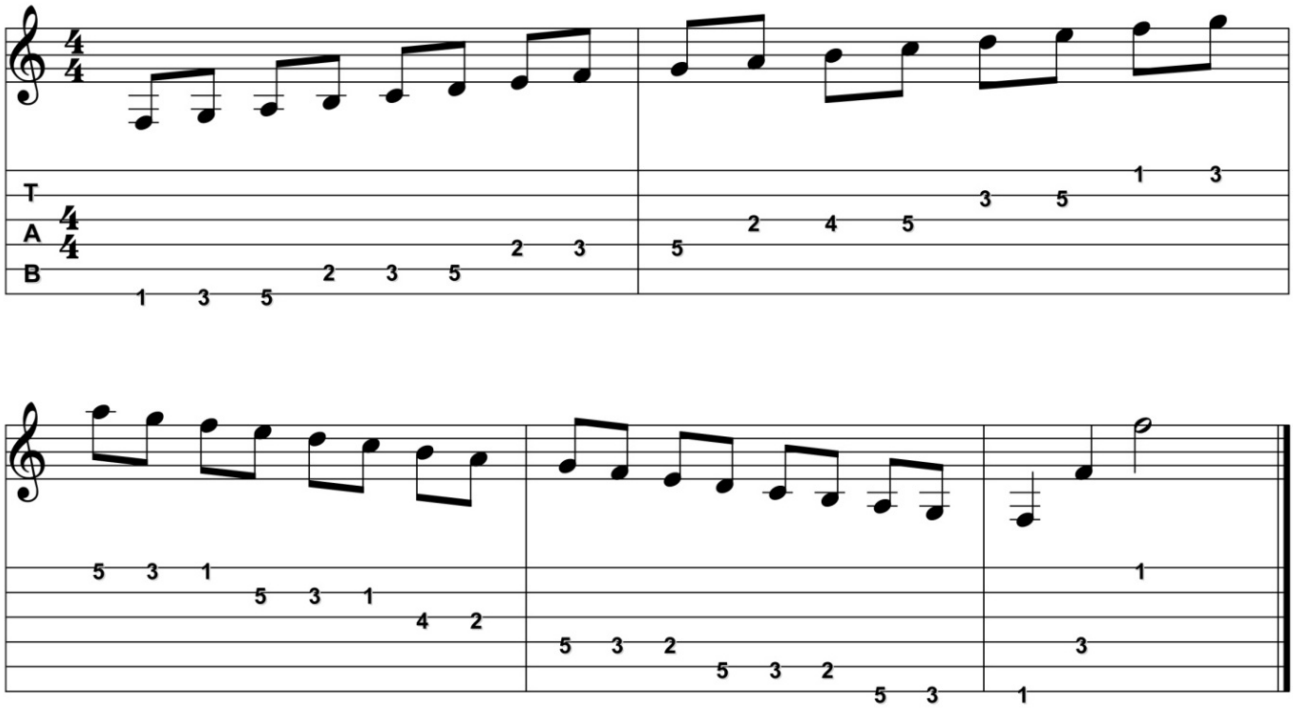
Pattern 4

"Lydian"

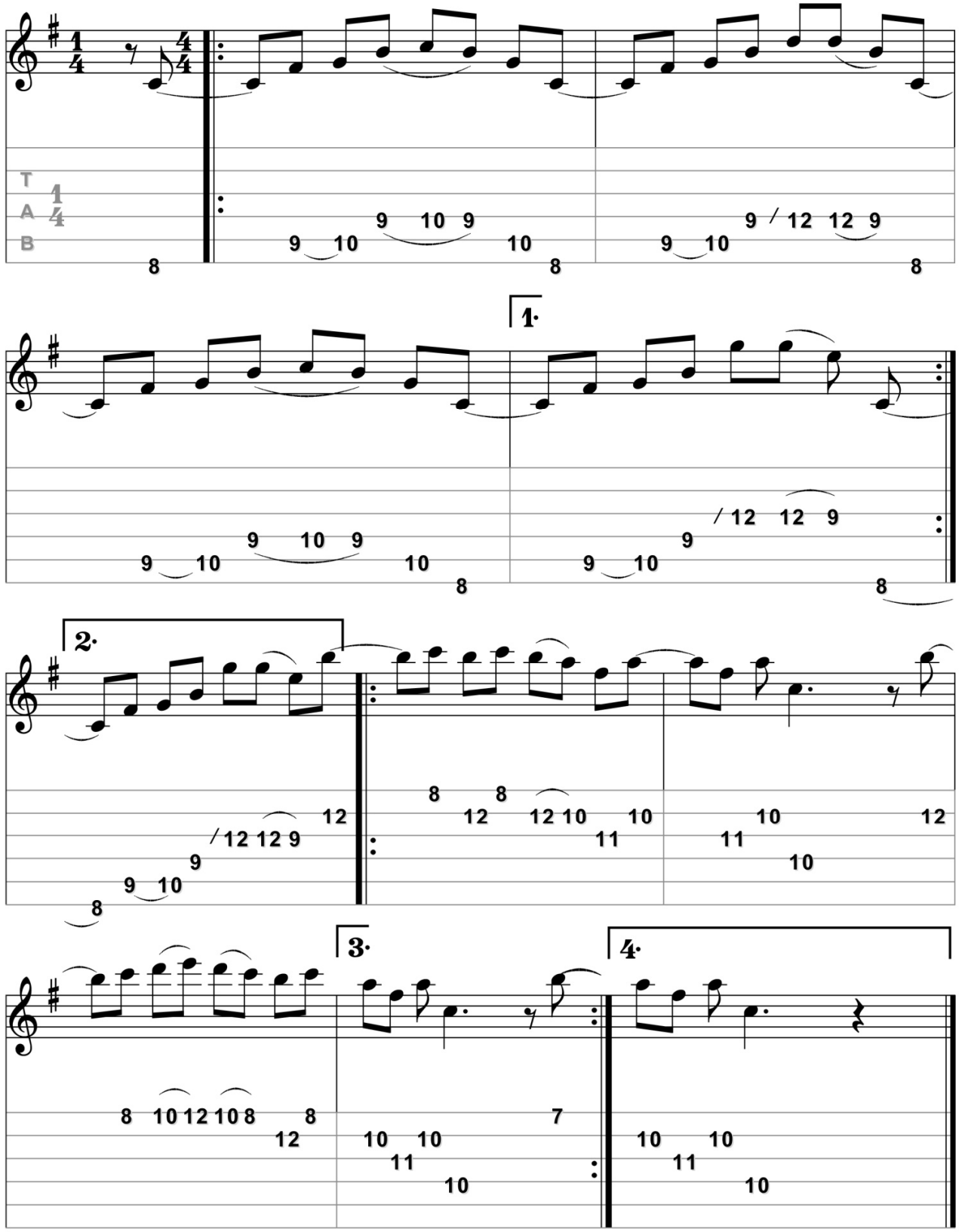
A Lydian scale is based upon the fourth degree of a major key. Using the musical compass, a Lydian scale can be created by turning the dial to the desired root note and selecting the intervals 1, 2, 3, #4 (same as #11), 5, 6, and 7. A Lydian scale can be thought of as a major scale with a raised fourth. It is this distinction that causes Lydian mode to sound somewhat dreamy and other-worldly. Within the Lydian pattern, the root note of the parent key is located in both third and fourth position.



Example – F Lydian pattern from the key of C major. **(CD4 – Track 10)**



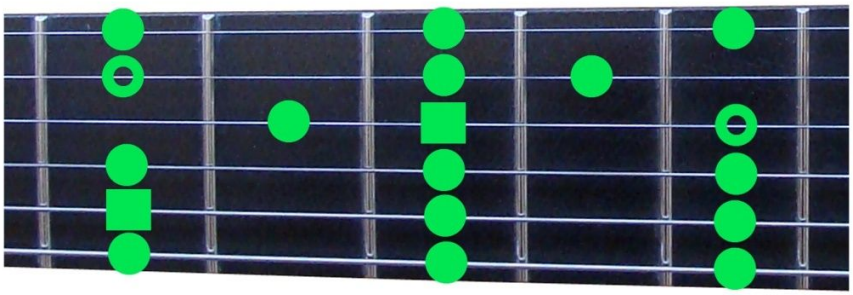
Exercise – Here is an example of a C Lydian melody from the parent key of G Major. In G major, the Lydian pattern is found between frets eight and twelve. **(CD4 – Track 11)**



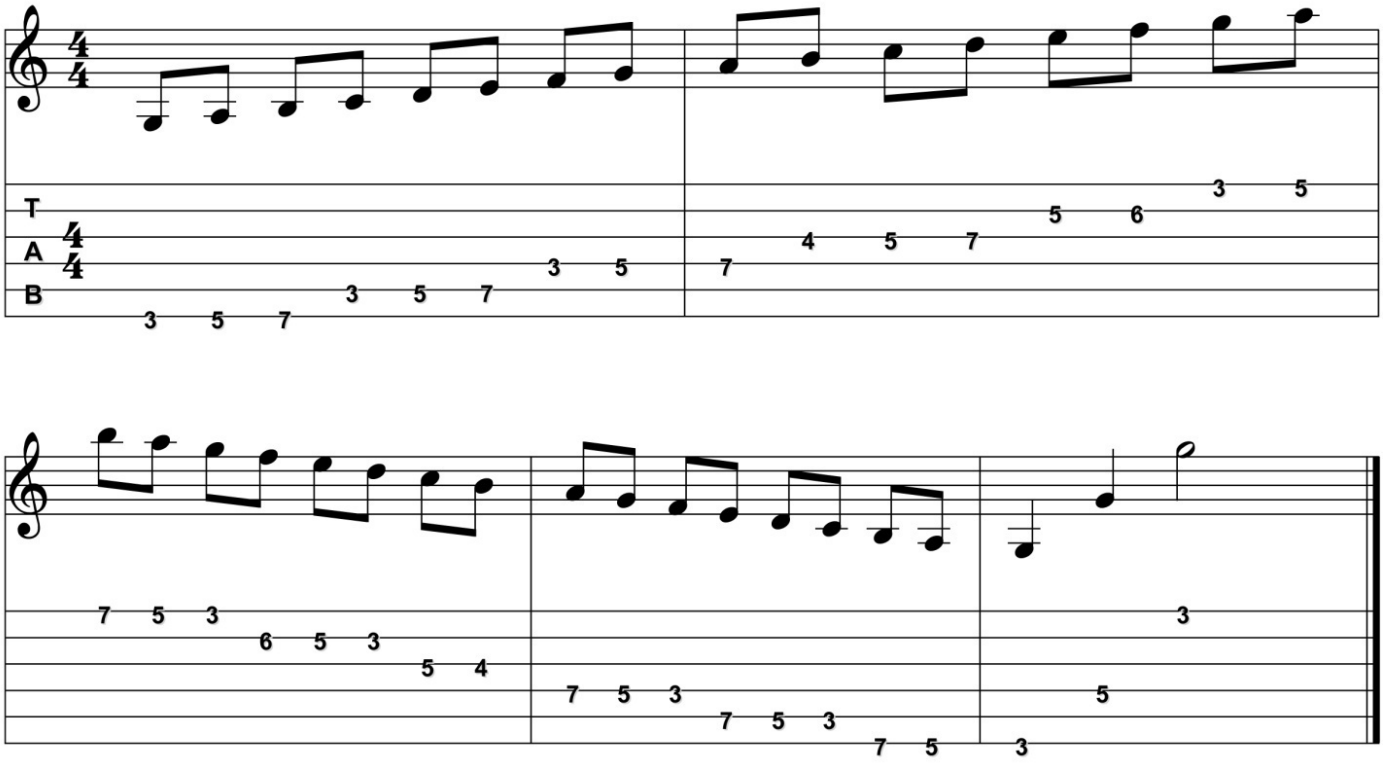
Pattern 5

"Mixolydian"

A Mixolydian scale is based upon the fifth degree of a major key. Using the musical compass, a Mixolydian scale can be created by turning the dial to the desired root note and selecting the intervals 1, 2, 3, 4, 5, 6, and ♭7. A Mixolydian scale can be thought of as major scale with a dominant seventh interval. Within the Mixolydian pattern, the root note of the parent key is located in fourth position.

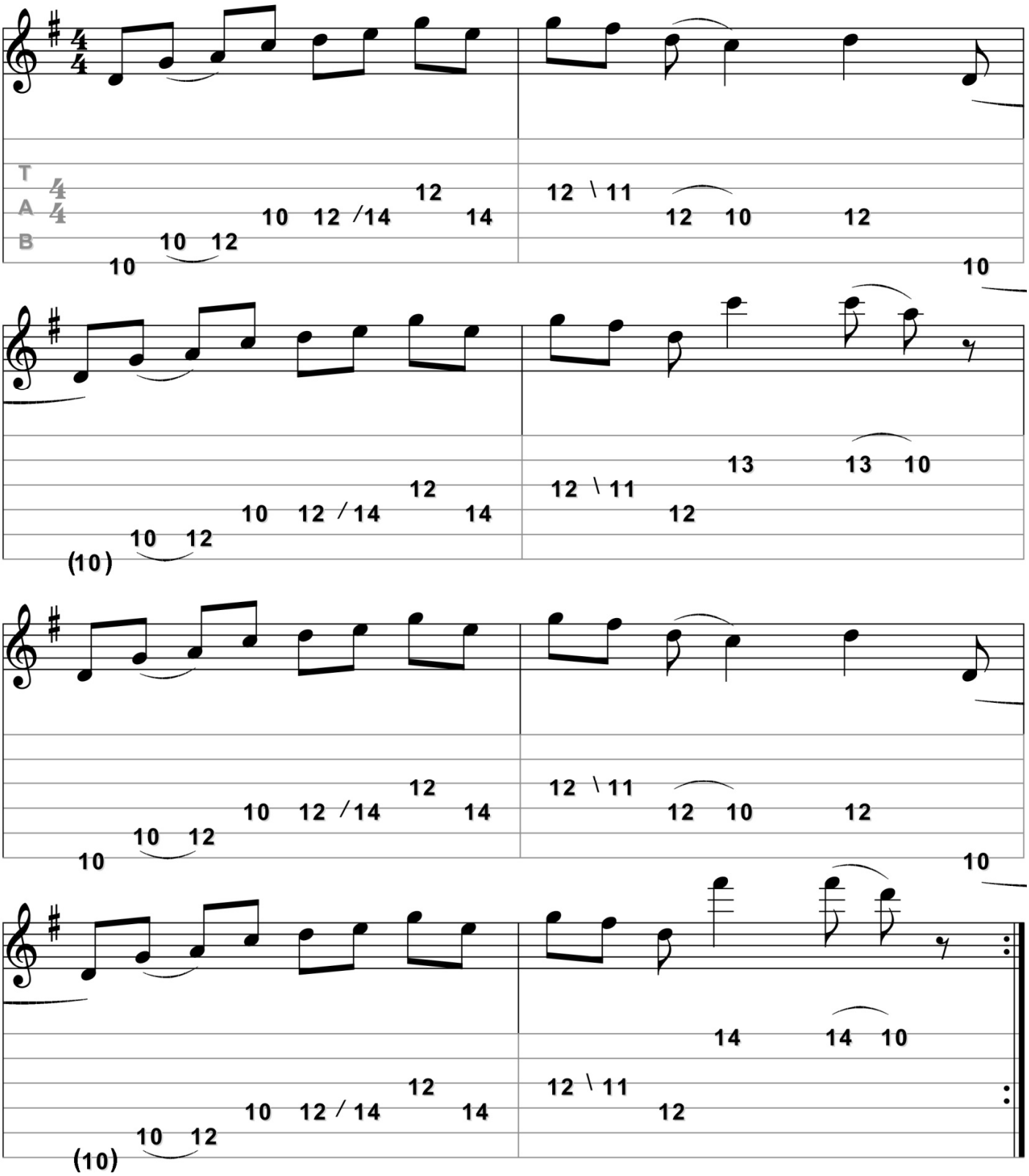


Example – G Mixolydian pattern from the key of C major. **(CD4 – Track 12)**



Exercise – Here is an example of a D Mixolydian melody from the key of G major. In the key of G major, the Mixolydian pattern is located between frets ten through fourteen.

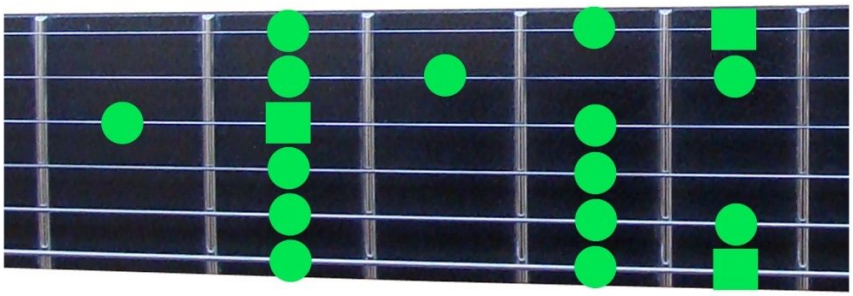
(CD4 – Track 13)



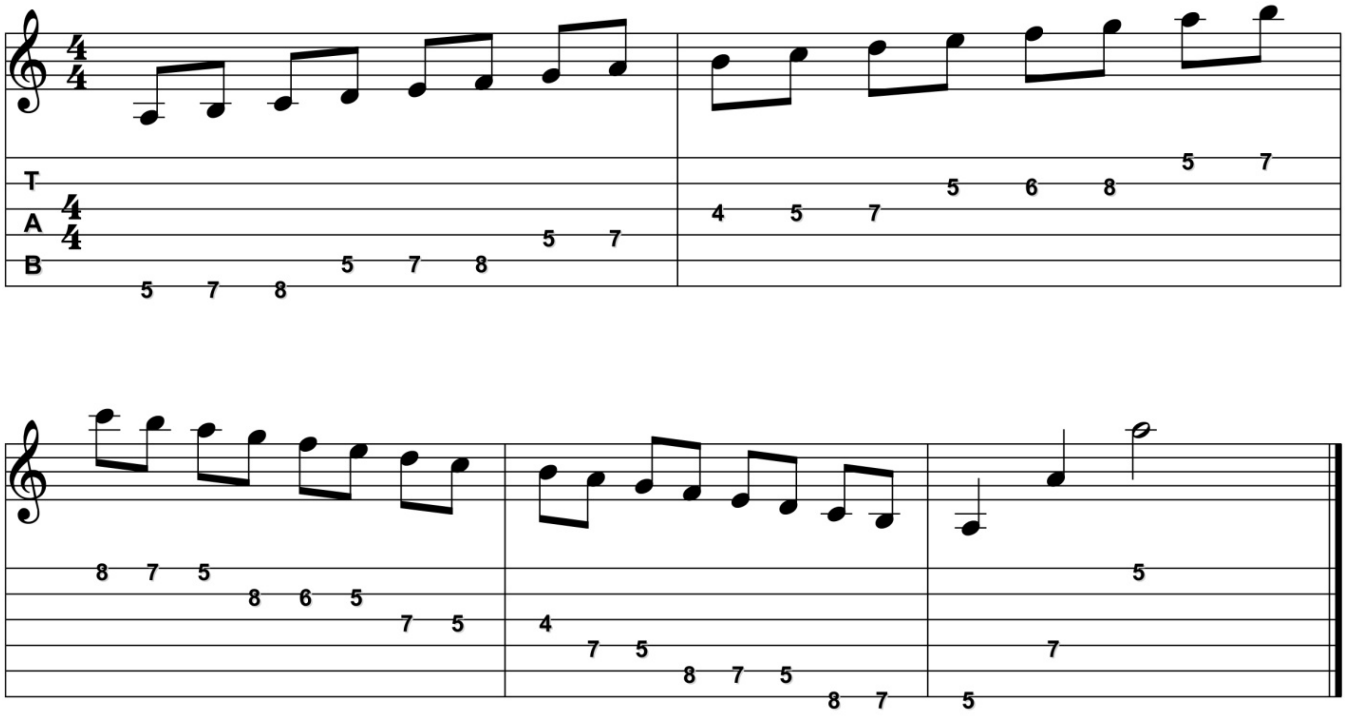
Pattern 6

"Aeolian"

An aeolian scale, also referred to as a "natural minor" scale, is based upon the sixth degree of a major key. Using the musical compass, an aeolian scale can be created by turning the dial to the desired root note and selecting the intervals 1, 2, ♭3, 4, 5, ♭6, and ♭7. Within the aeolian pattern, the root note of the parent key is located in fifth position.

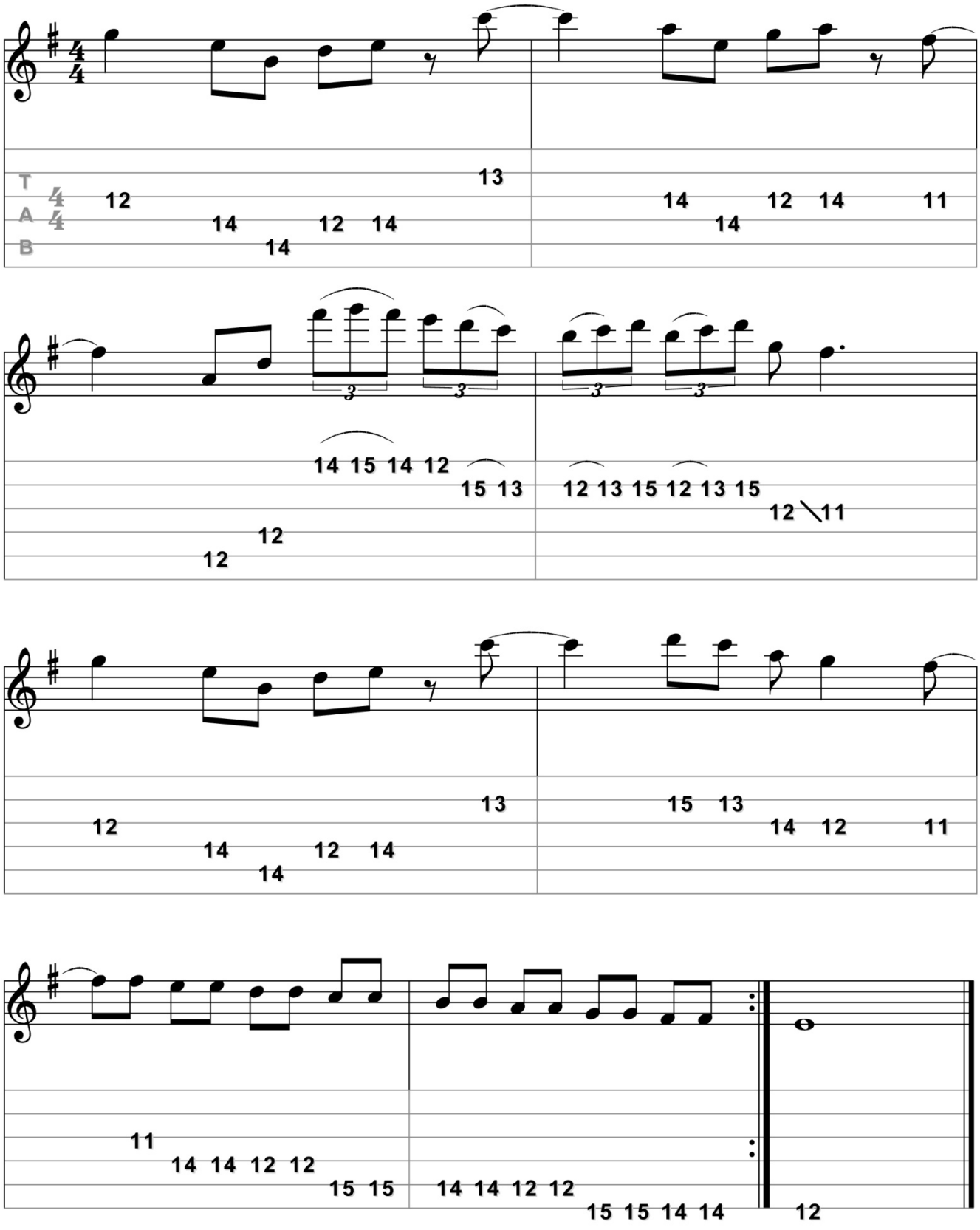


Example – a aeolian pattern from the key of C major. **(CD4 – Track 14)**



Exercise – below is an example of a melody in e aeolian derived from the parent key of G major. In the key of G, the aeolian pattern is located between frets twelve and fifteen.

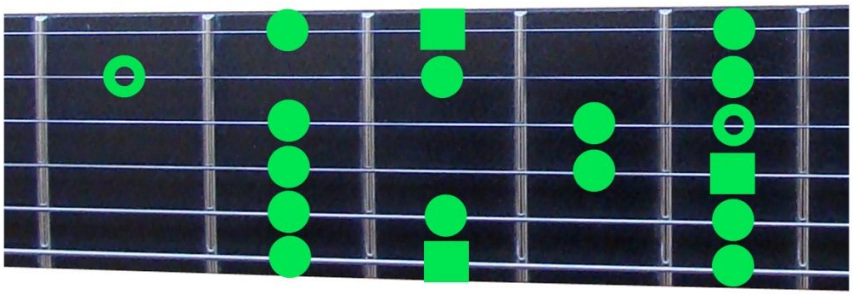
(CD4 – Track 15)



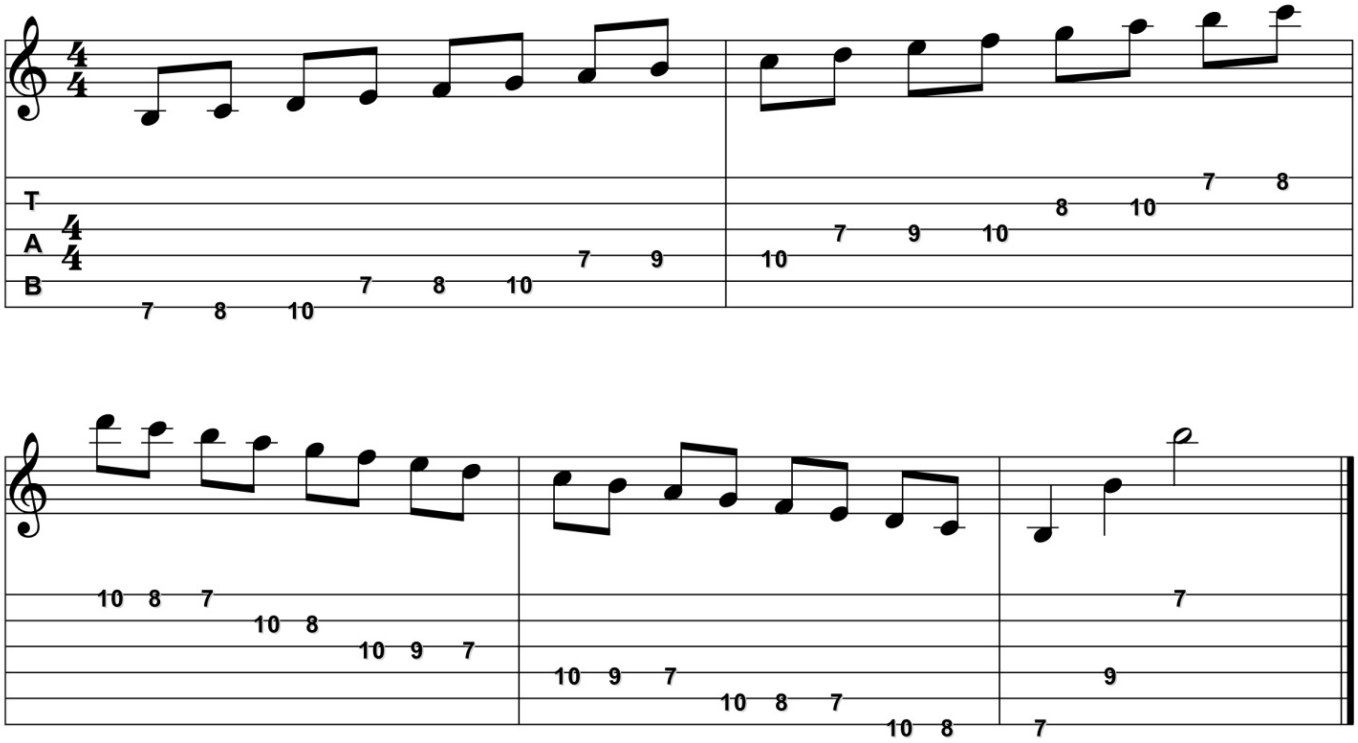
Pattern 7

"Locrian"

A locrian scale is based upon the seventh degree of a major key. Using the musical compass, a locrian scale can be constructed by turning the dial to the desired root position and selecting the intervals 1, ♭2, ♭3, 4, ♭6, and ♭7. Within the locrian pattern, the root note of the parent key is located in first position. (The five-position and seven-pattern cycle starts over beyond this point.)

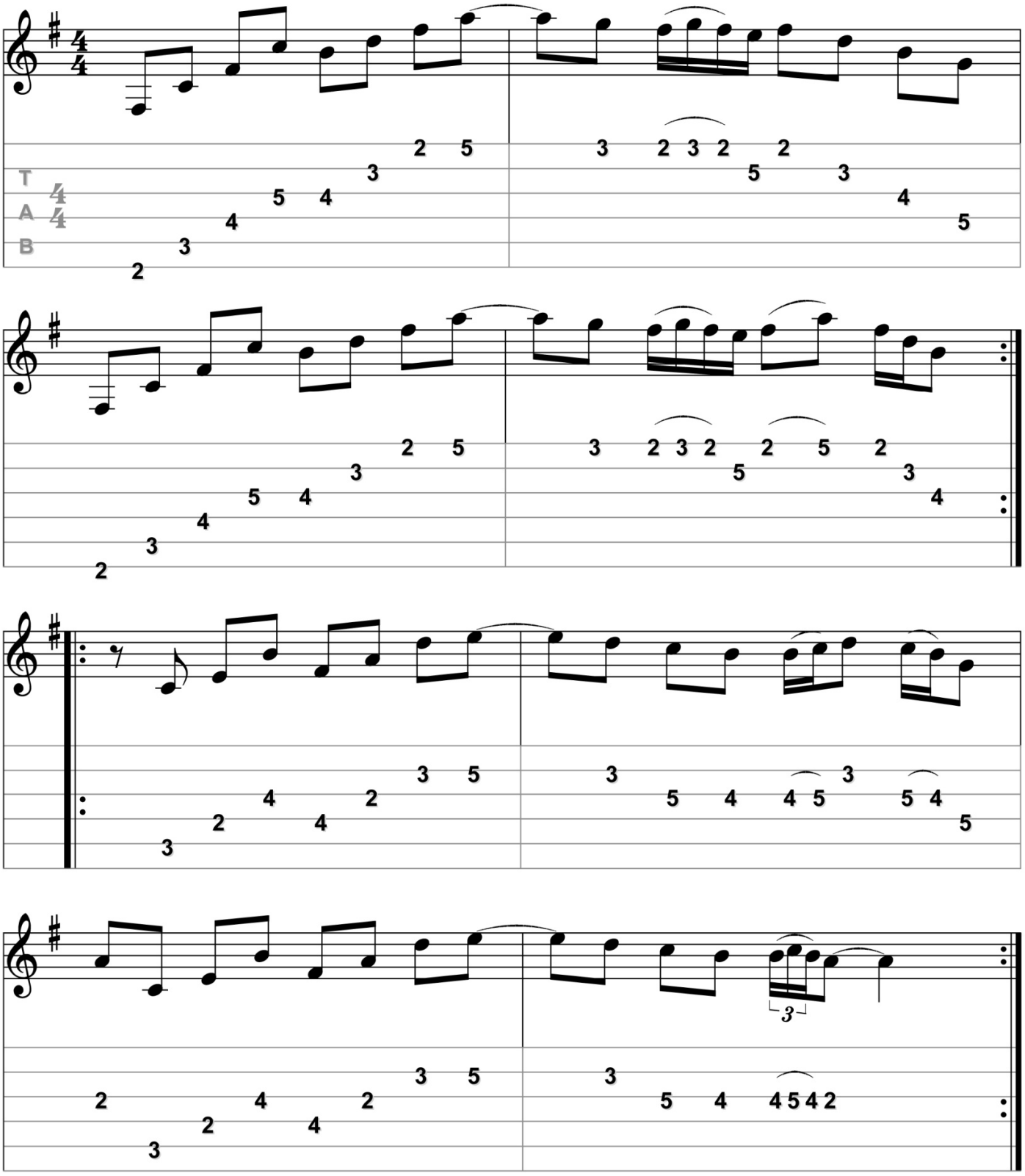


Example – b locrian from the key of C major. **(CD4 – Track 16)**



Exercise – Here is an example of a melody within the locrian pattern from the key of G major. In the key of G major, the locrian pattern is found between frets two through five.

(CD4 – Track 17)



Glossary of Terms

♭2 – *The note one half-step above the root note, often referred to as the "flatted second" interval*

2 – *the second degree of a major scale*

4 – *the fourth degree of a major scale*

♭5 – *the note one half step below the fifth degree of a major scale, often referred to as the "flatted fifth" interval*

5 – *the fifth degree of a major scale*

6 – *the sixth degree of a major scale*

Aeolian – *the minor mode based on the sixth degree of a major scale as its tonal center. Aeolian mode is well-known for its sorrowful and melancholic sound*

Aeolian scale – *a type of scale derived from using the sixth degree of a major scale as a root and tonal center*

Bar – *also called "measure". The unit of measure usually (in standard 4/4 time signature) containing every four beats of a song*

Bar Lines – *the vertical lines upon the staff in musical notation separating each measure (typically measured with three or four beats-per-measure) from the next*

Barring – *flattening a finger against the fret board so that more than one note can be pressed down*

Box positions – *any portion of a scale that can be played within a span of five frets*

Chord – *a grouping of, usually, three or more harmonized notes played simultaneously*

Chromatic scale – *the twelve notes that all western music is based upon, each divided by half-step increments*

Degree – *a number (usually between one and seven) referring specifically to one of the seven notes within a key in numerical order*

Dominant seventh – *the note one half step below a major seventh interval, indicated by the symbol "♭7"*

Dorian – *the minor mode based on the second degree of the major scale as a tonal center*

Flat – *the note that is one-half step lower than a given natural note, notated by the symbol "♭"*

Fret – *the metal bars placed vertically upon the fret board each upon which each note of the chromatic scale can be played*

Fret board – *flat surface upon the neck of the guitar containing*

Fret number – *a number ranging from zero and up referring to the number of the fret, counted up from the end of the fret board, upon which a given note can be played*

Guitar – *the instrument that you are learning how to play right now*

Half step – *the smallest increment between pitches that can occur in traditional western music representing each division of the chromatic scale*

Harmony – *two or more notes played simultaneously*

Intervals – *divisions of a chromatic scale, independent of any specific root note, whose names are abstracted from the relationship between degrees of a major scale*

Ionian – *major mode based on the first degree of the major key, also referred to as the "parent scale" from which all other modes are derived*

Locrian – *mode based on the seventh degree of the major scale as a tonal center*

Lydian – *major mode based on the fourth degree of the major scale as a tonal center*

Maj3 – *the third degree of a major scale, also referred to as a "Major Third" interval*

min3 – *the note one half step below a Major third interval, often referred to as a "minor third" interval*

Maj7 – *the note one half step below a root note corresponding to the seventh degree of a major scale, often referred to as a "Major seventh" interval*

Major key – *a group of seven notes selected by following the formula for a major scale from any of the twelve possible notes of the chromatic scale, also referred to as the "parent key"*

Major scale – *played when the scale also corresponds to the first mode of a major key so that the root is the same note as the root note of the given major key*

Measure – *the unit of meausure usually (in standard 4/4 time signature) containing every four beats of a song, also called a "bar"*

Melody – *a musical phrase or set of musical phrases played back to back*

Mixolydian – *major mode based on the fifth degree of the major scale as a tonal center*

Mode – *scale extracted from a given parent key corresponding to one of its seven degrees*

Musical compass – *a learning tool designed to help you determine interval relationships easily*

Natural – *one of the seven notes within the chromatic scale that are neither sharp nor flat*

Neck – *the neck of the guitar containing the frets*

Note wheel – *the dial on the center of the musical compass that can be turned to any specific root note to judge interval relationships between notes*

Octave – *a note located in 12 chromatic half step increments above or below a given root note*

Open position – *the first four frets of the neck*

Open string – *a string played "open" without pressing it down upon any fret*

Parent key – *the major key from which a given mode is derived*

Pentatonic Scale – **five note scale created from intervals 1, ♭3, 4, 5, & ♭7**

Phrygian – *minor mode based on the third degree of the major scale as a tonal center. This mode tends to sound somewhat Spanish.*

Position one – *the first position for finding octaves upon the guitar, wherein a given root note is located on the first, fourth, and sixth strings within a three-fret reach*

Position two – *the second position for finding octaves upon the guitar, wherein a given root note is located on the second and fourth string within a four-fret reach*

Position three – *the third position for finding octaves upon the guitar, wherein a given root note is located on the second and fifth strings and within a three-fret reach*

Position four – *the fourth position for finding octaves upon the guitar, wherein a given root note is located on the third and fifth strings and within a three-fret reach*

Position five – *the fifth position for finding octaves upon the guitar, wherein a given root note is located on the first, third, and sixth strings and within a four-fret reach*

Root note – *a note upon which an octave, chord, or scale is based upon*

Scale – *a group of, usually, seven notes played in chromatic order*

Sharp – *frequently refers to one half step above a given natural note, notated by using the symbol "#"*

Steps – *the unit of measure for intervals, measured in either "whole steps" or "half steps"*

Tab – *abbreviation for "tablature"*

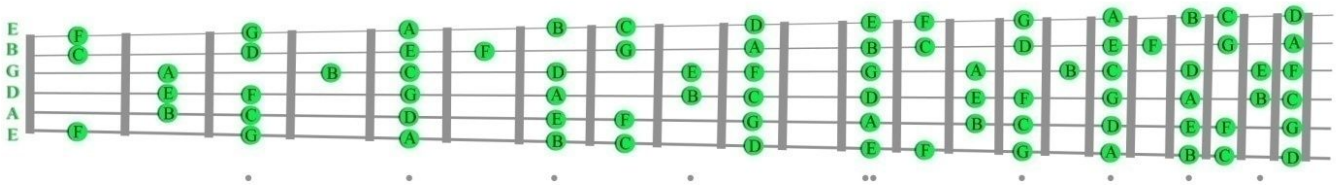
Tablature – ***a chart of the fret board illustrating where to find the notes upon each strings read from left to right in sequence and upside down (as if you were looking at the guitar while playing it) coming from the Latin term meaning "table" or "chart"***

Unison notes – ***two notes that are identical in pitch but played on different strings and frets***

Whole step – ***unit of measurement between intervals divisible only by two half steps***

In the following section of this book, you'll find references that show you all the chords and scale patterns in each of the 12 major keys as well as a kit for building your own musical compass, an exercise for further learning the fret board, and blank tab paper for notes. It may be worth your while to print off the following pages for personal use;

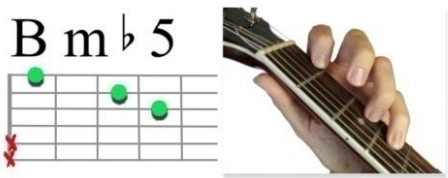
Key of C Major



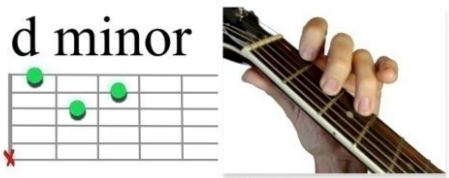
C Major

C Maj^7

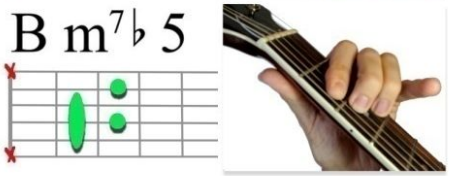
B m♭5



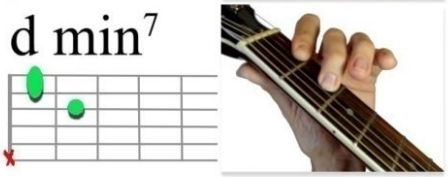
d minor

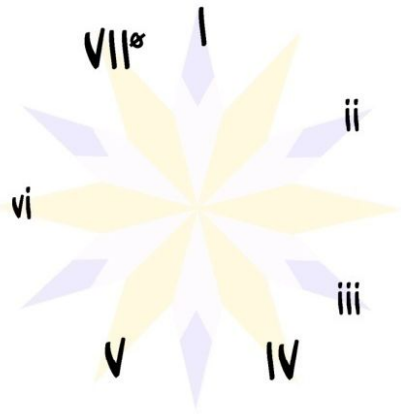


B m^7♭5

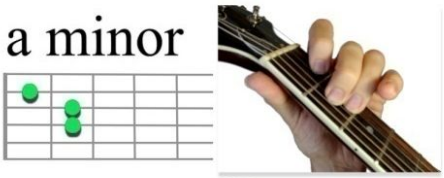


d min^7

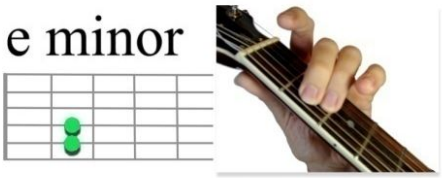




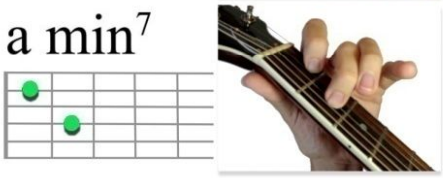
a minor



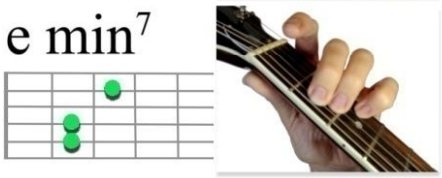
e minor



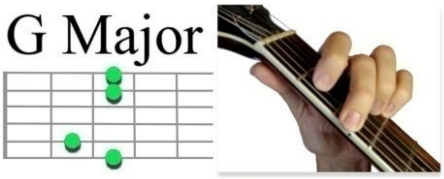
a min^7



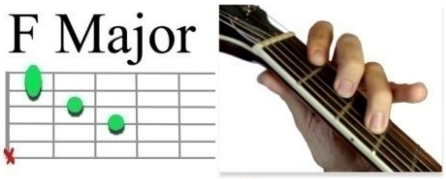
e min^7



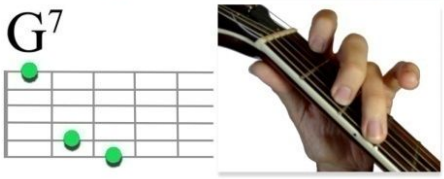
G Major



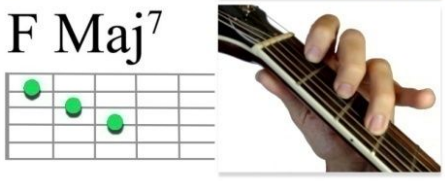
F Major



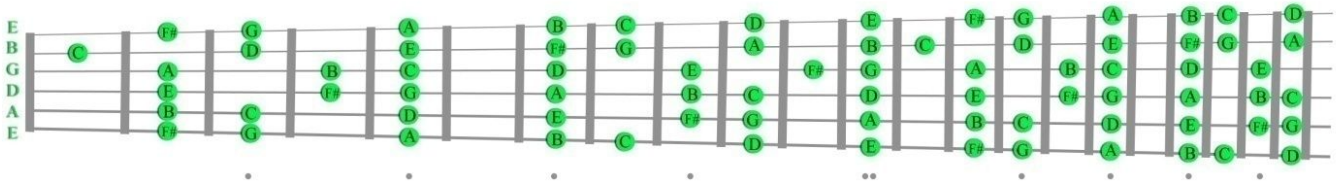
G^7

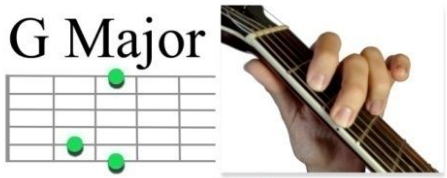


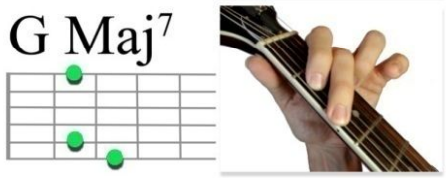
F Maj^7

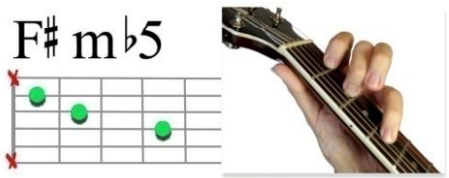


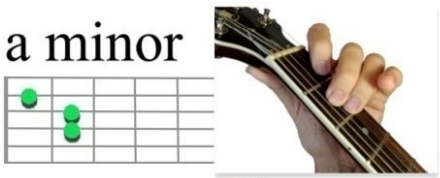
Key of G Major

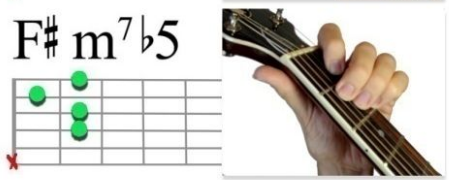


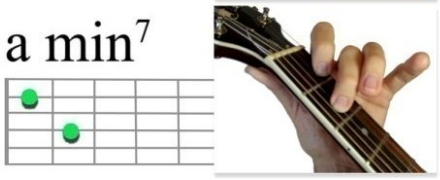


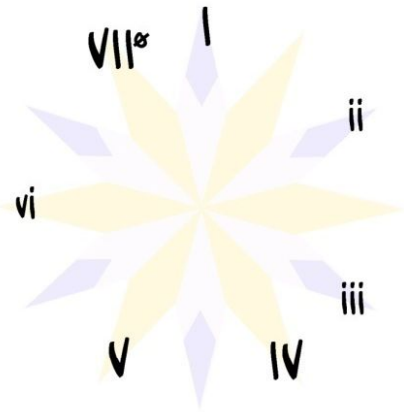


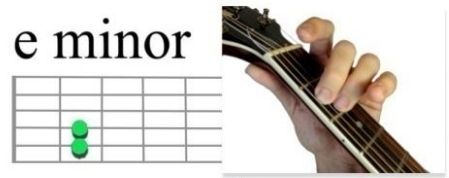


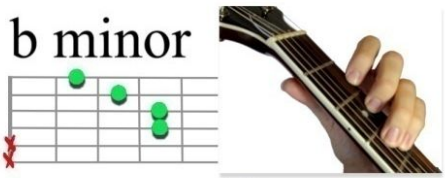


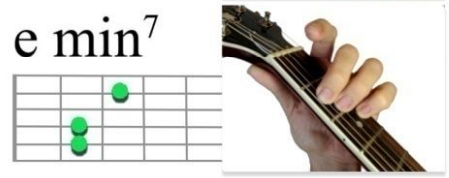


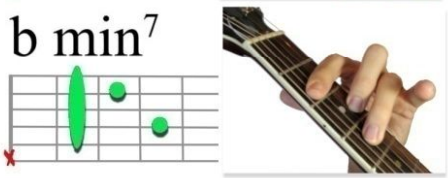


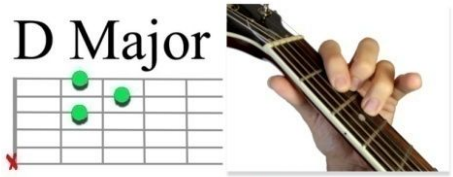


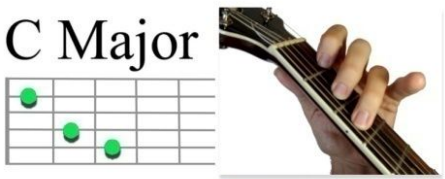


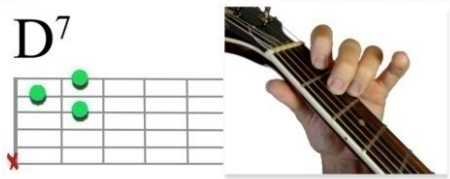


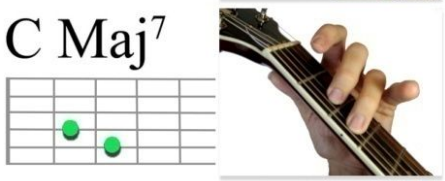




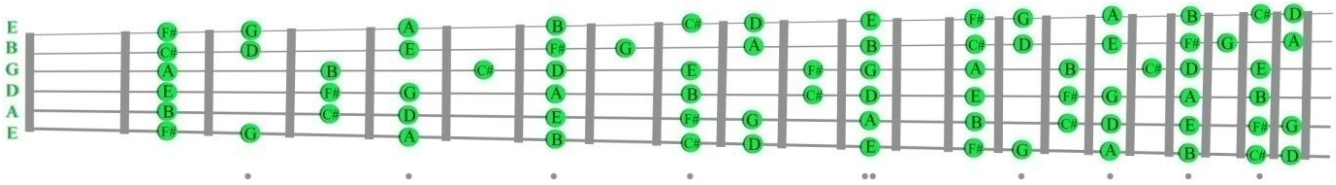


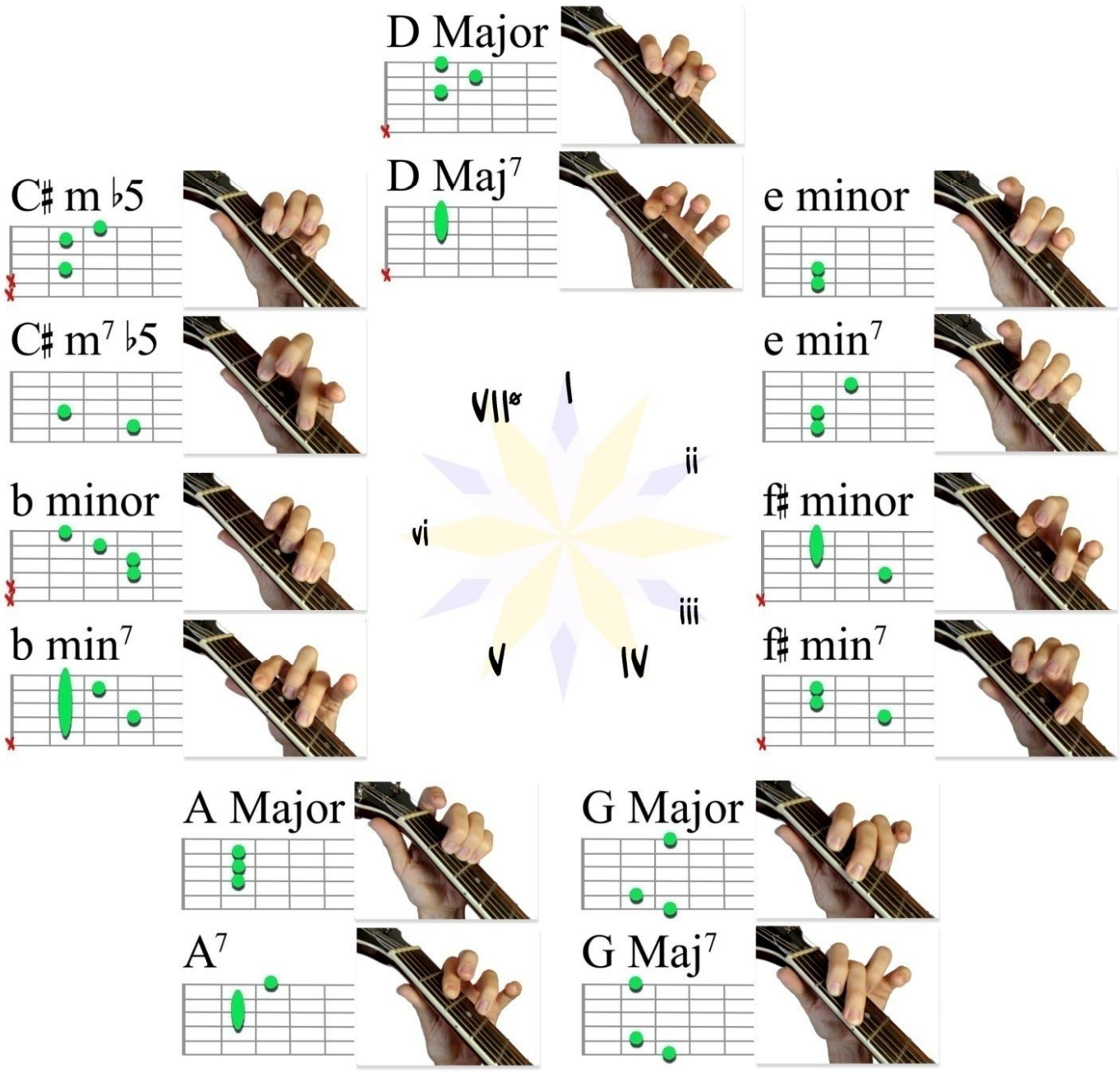




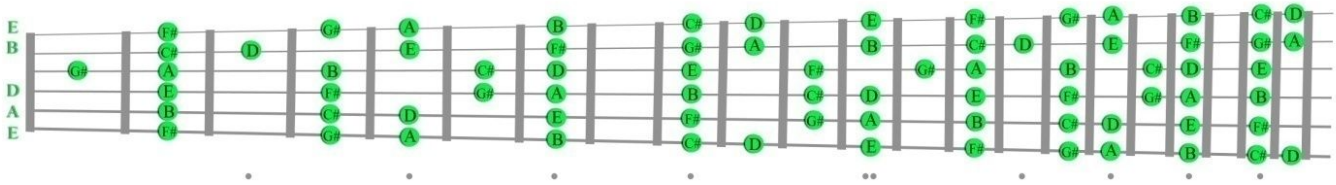


Key of D Major

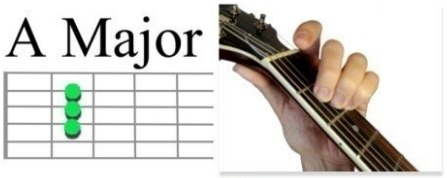




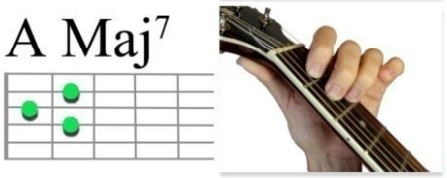
Key of A Major



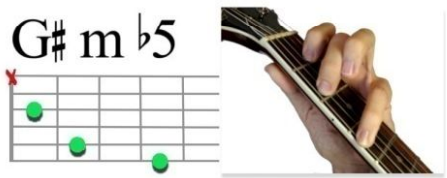
A Major



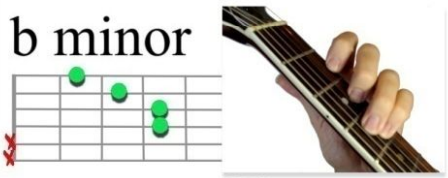
A Maj^7



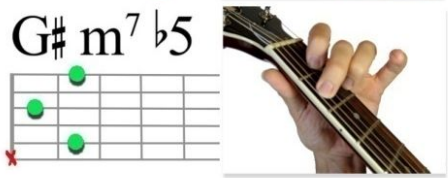
G♯ m ♭5



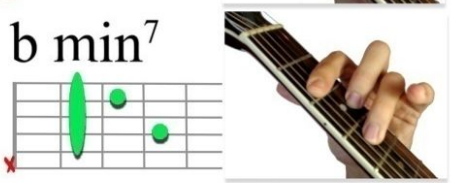
b minor

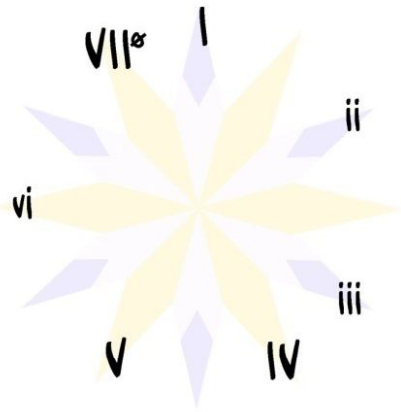


G♯ m^7 ♭5

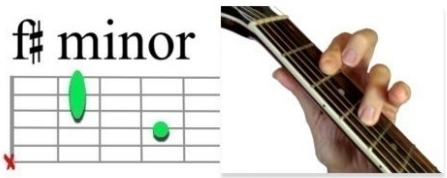


b min^7

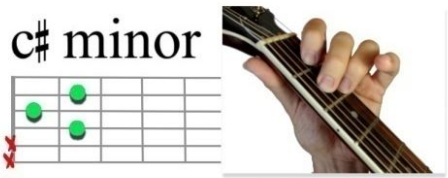




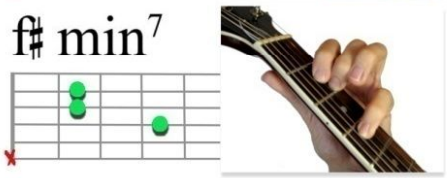
f♯ minor



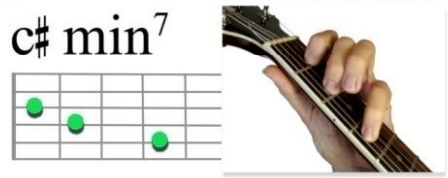
c♯ minor



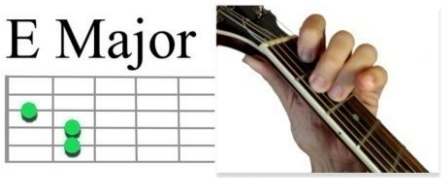
f♯ min^7



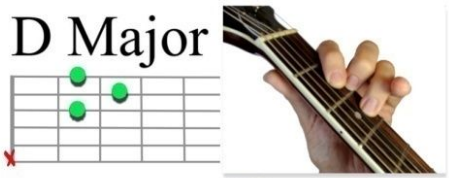
c♯ min^7



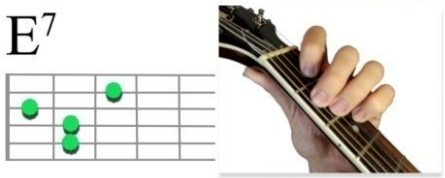
E Major



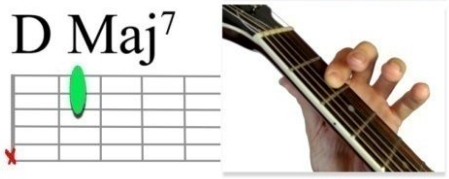
D Major



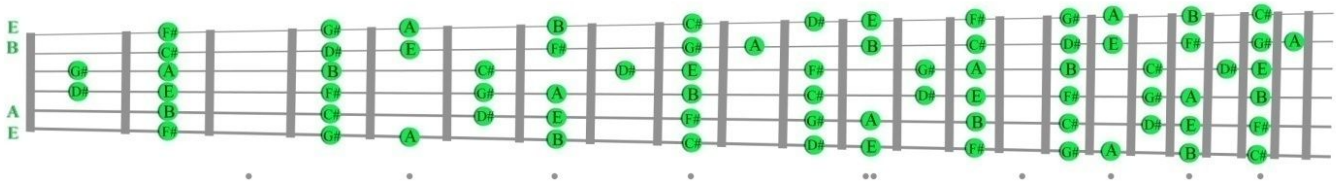
E^7



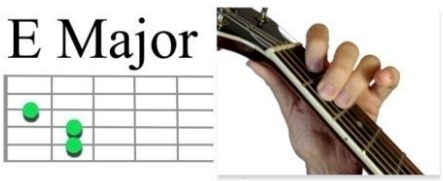
D Maj^7



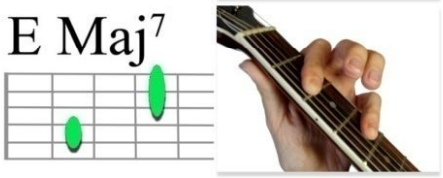
Key of E Major



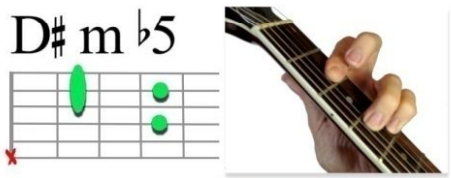
E Major



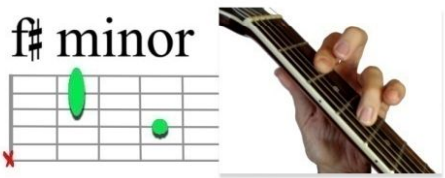
E Maj^7



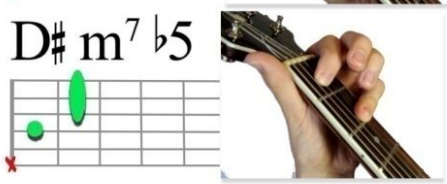
D♯ m ♭5



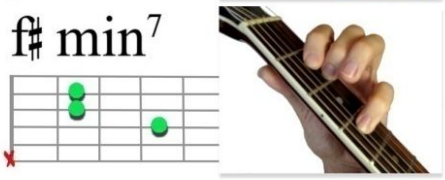
f♯ minor

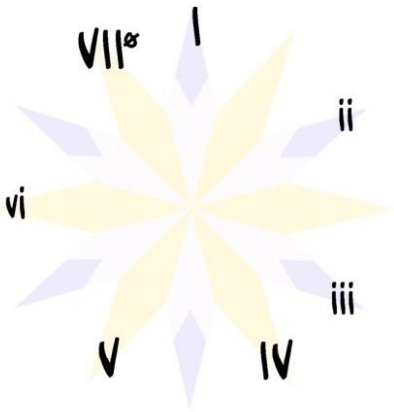


D♯ m^7 ♭5

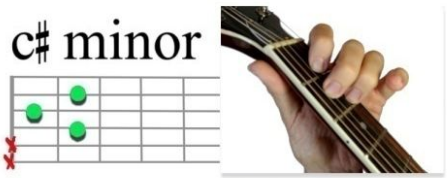


f♯ min^7

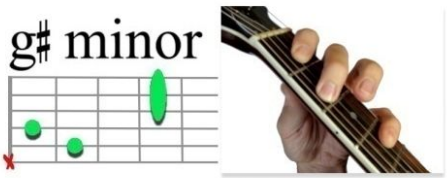




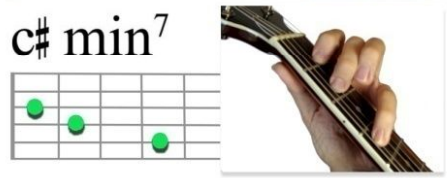
c♯ minor



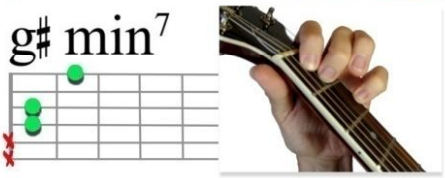
g♯ minor



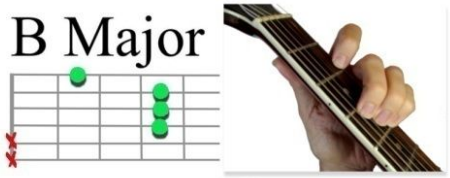
c♯ min^7



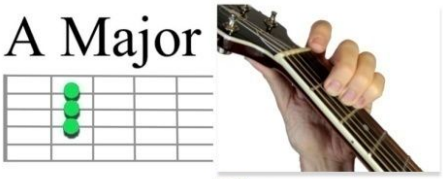
g♯ min^7



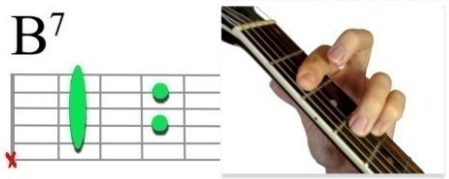
B Major



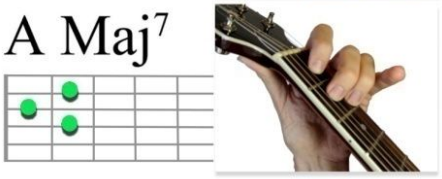
A Major



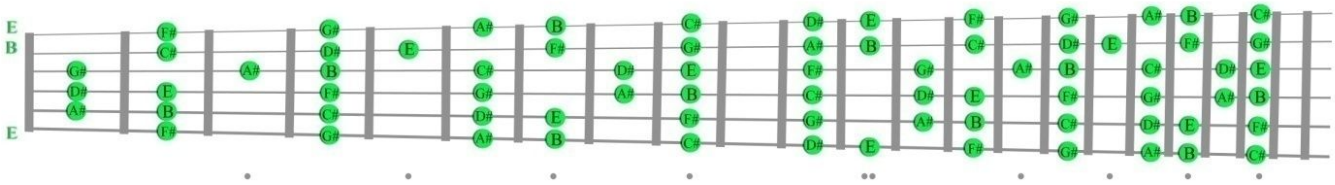
B^7

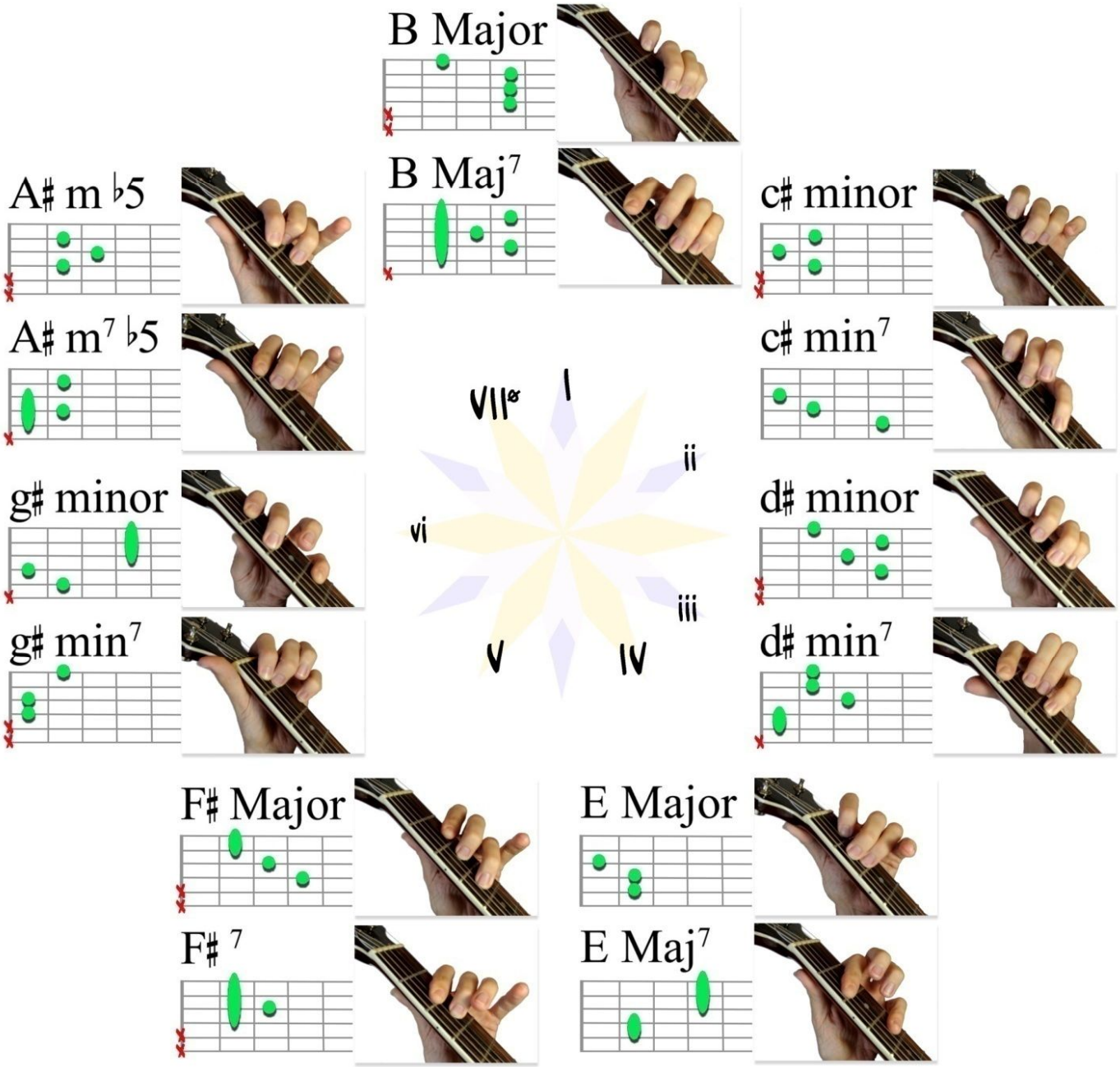


A Maj^7



Key of B Major





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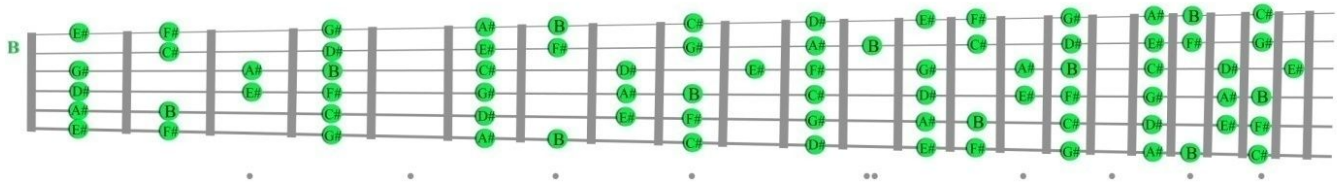
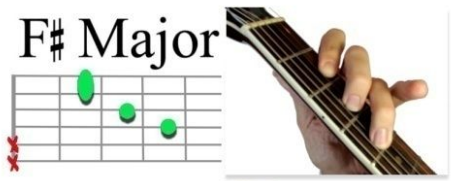
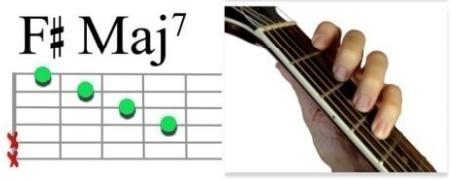


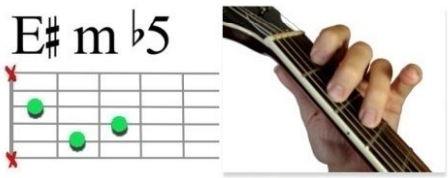
F♯ Major



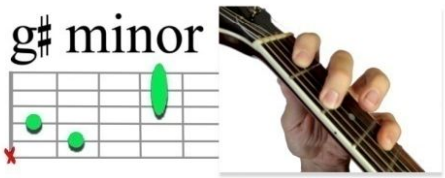
F♯ Maj^7



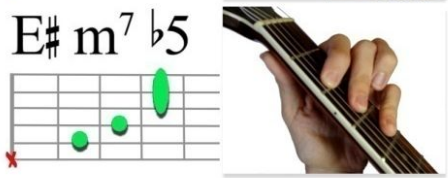
E♯ m ♭5



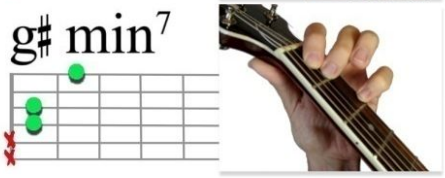
g♯ minor

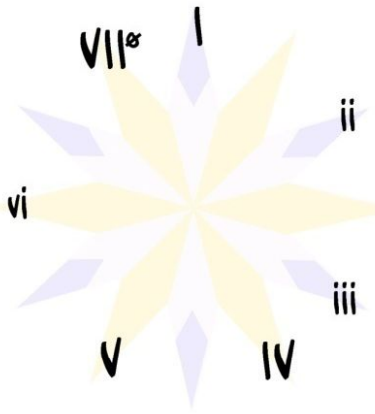


E♯ m^7 ♭5

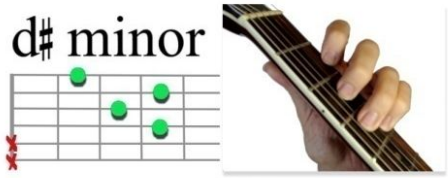


g♯ min^7

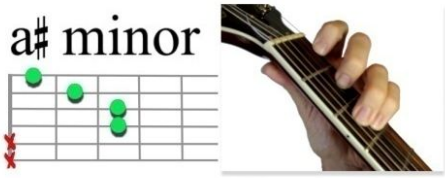




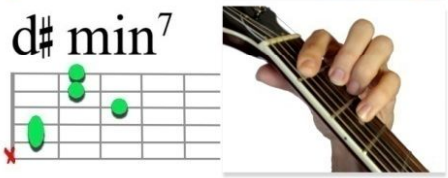
d♯ minor



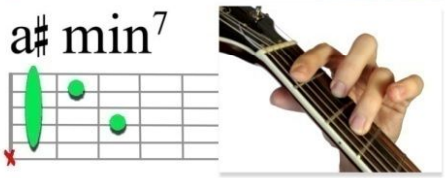
a♯ minor



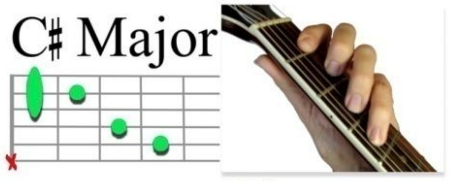
d♯ min^7



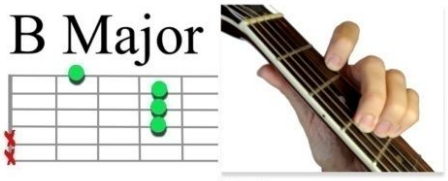
a♯ min^7



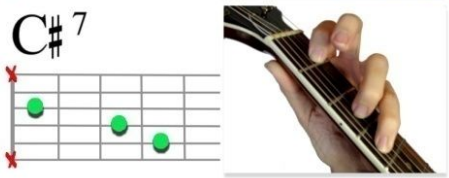
C♯ Major



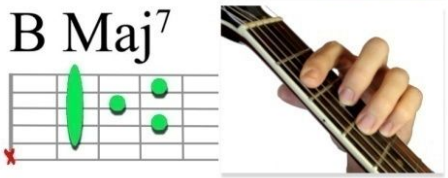
B Major



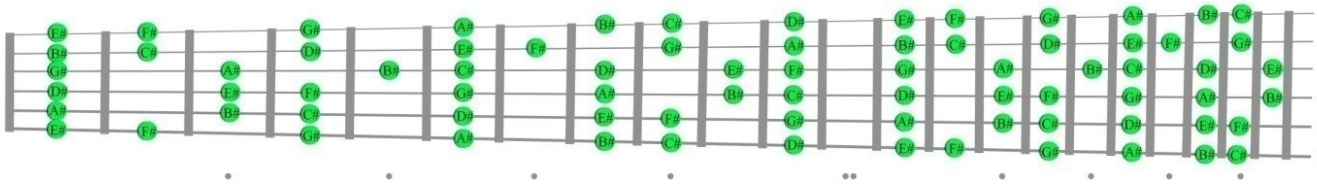
C♯^{7}



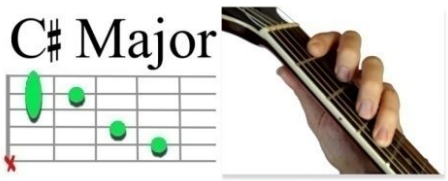
B Maj^7



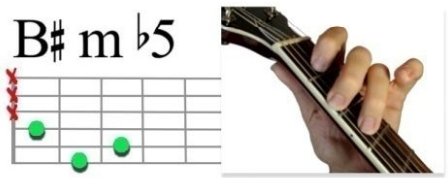
Key of C# Major



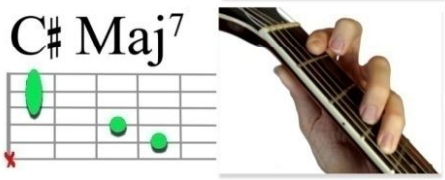
C♯ Major



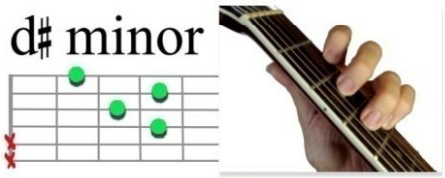
B♯ m ♭5



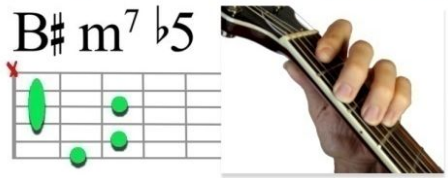
C♯ Maj7



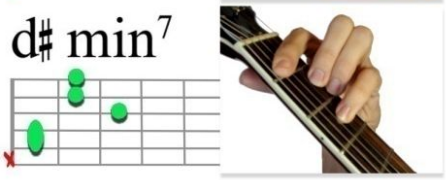
d♯ minor

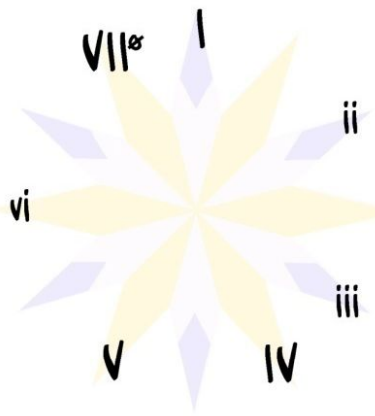


B♯ m7 ♭5

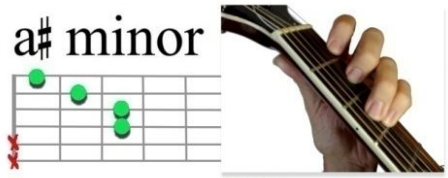


d♯ min7

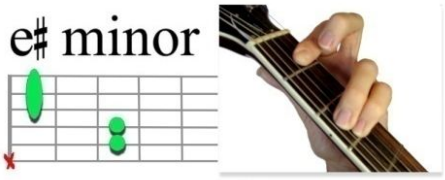




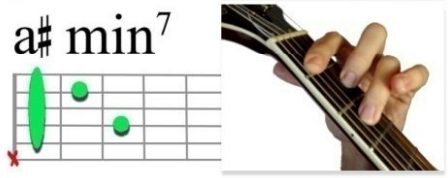
a♯ minor



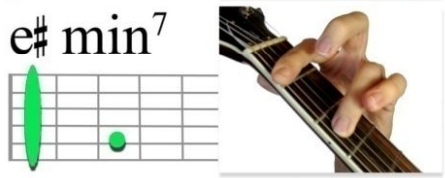
e♯ minor



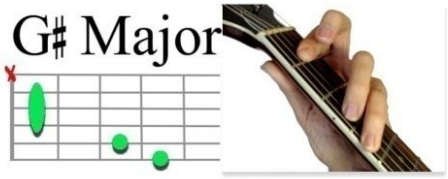
a♯ min7



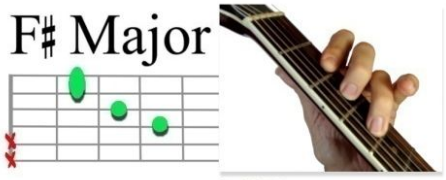
e♯ min7



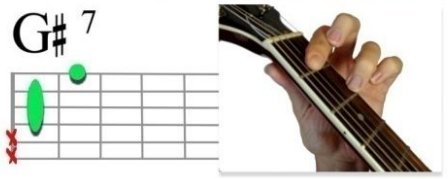
G♯ Major



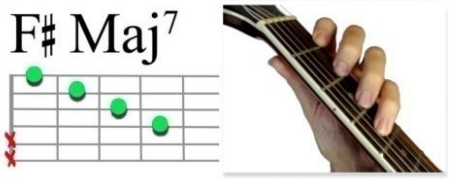
F♯ Major



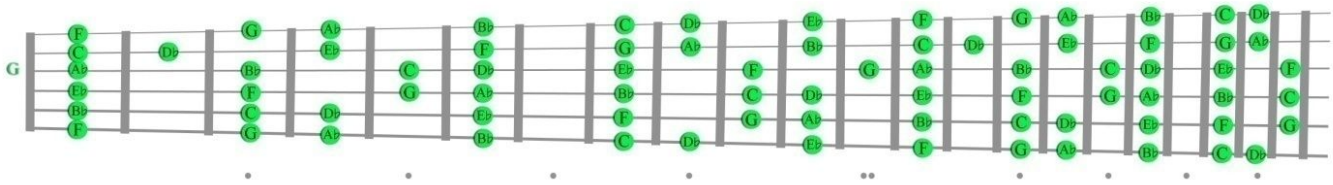
G♯ 7

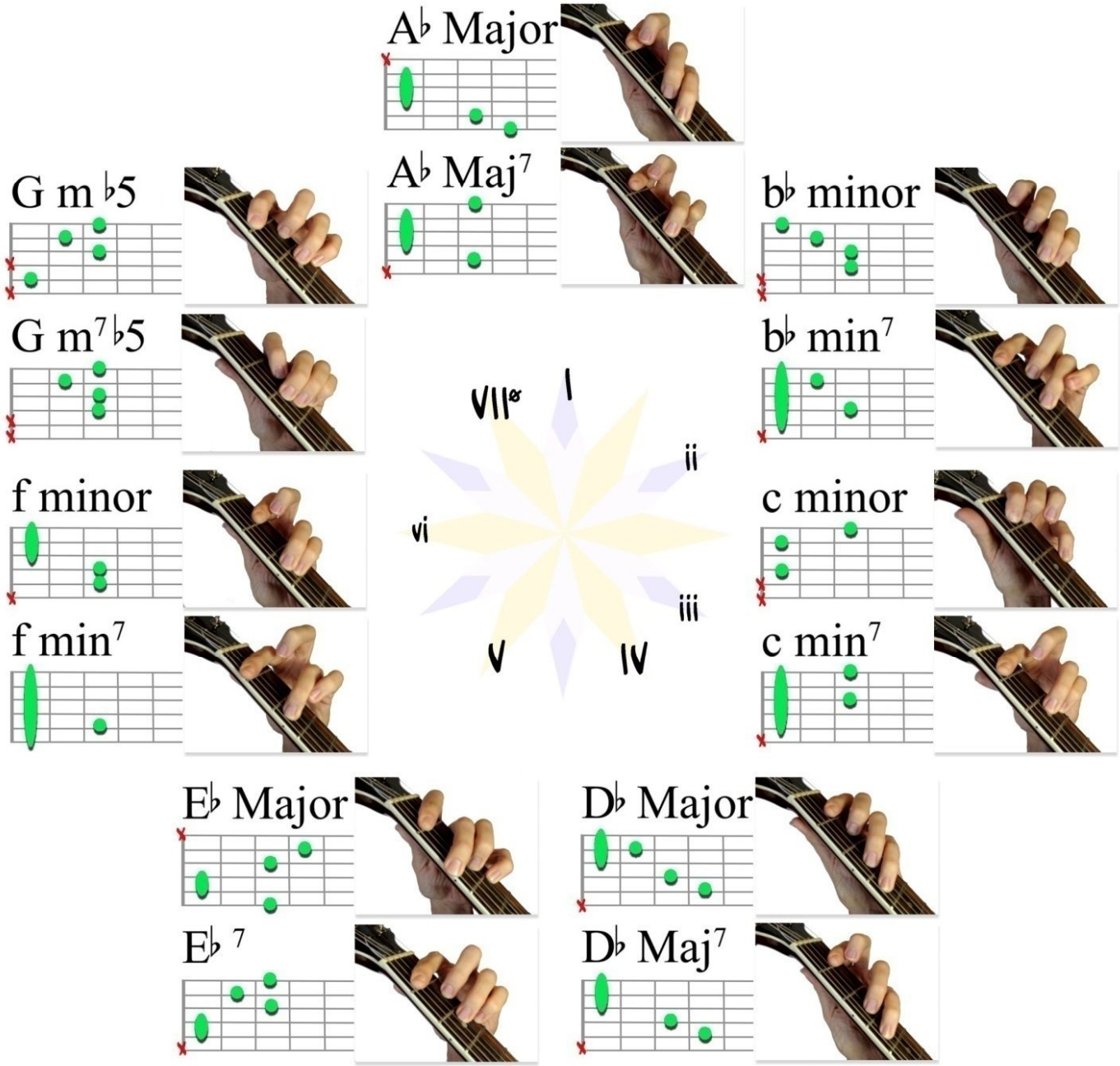


F♯ Maj7

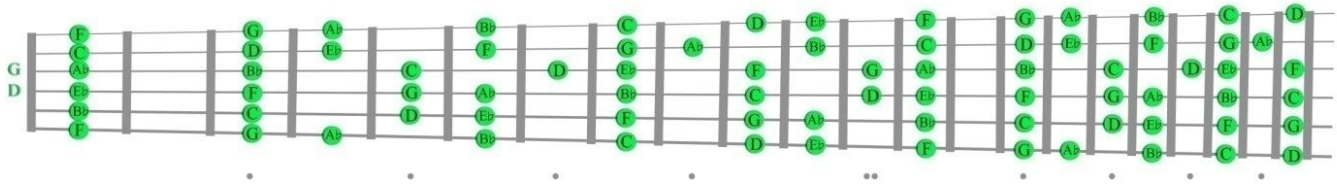


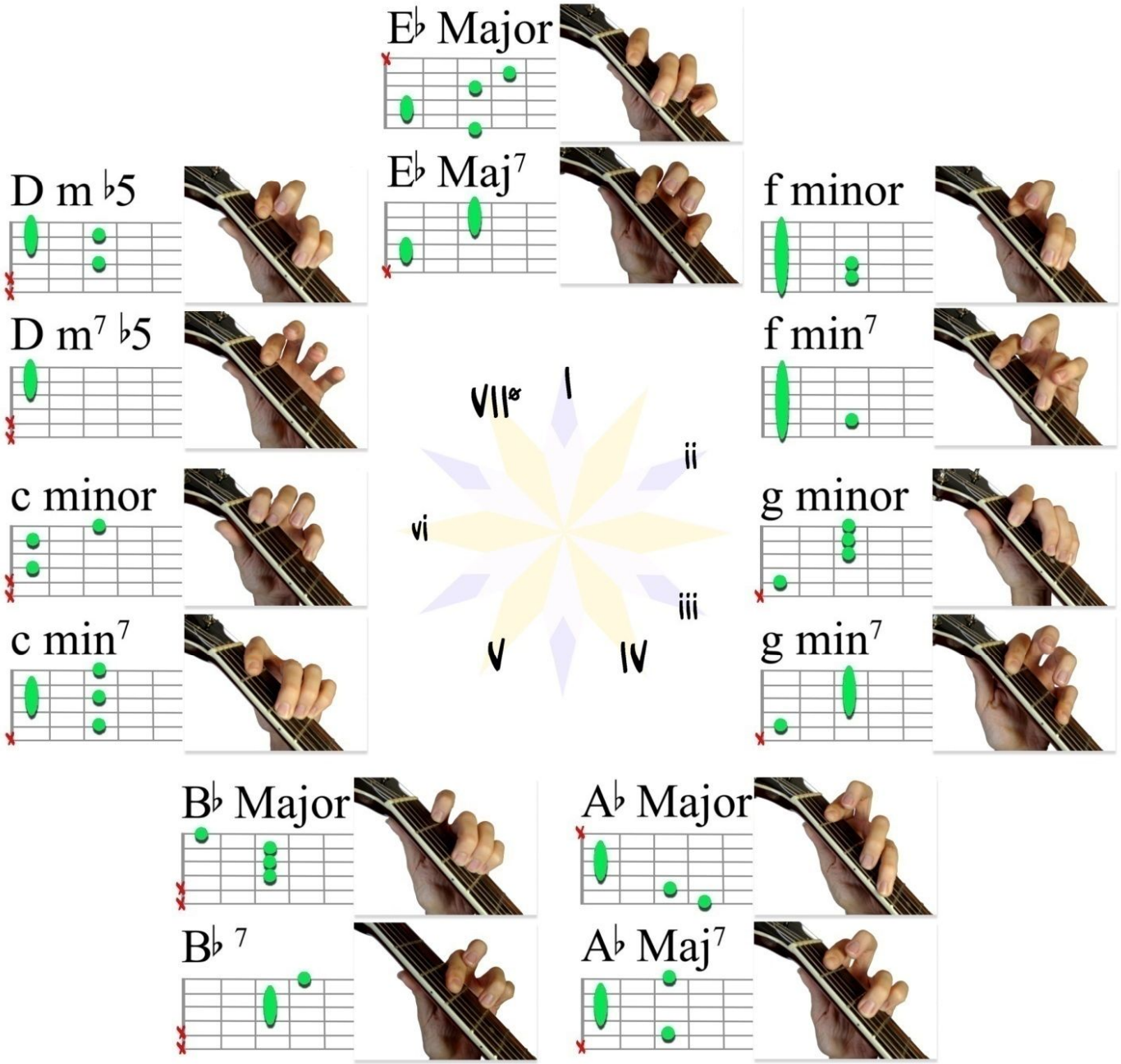
Key of A♭ Major





Key of E♭ Major





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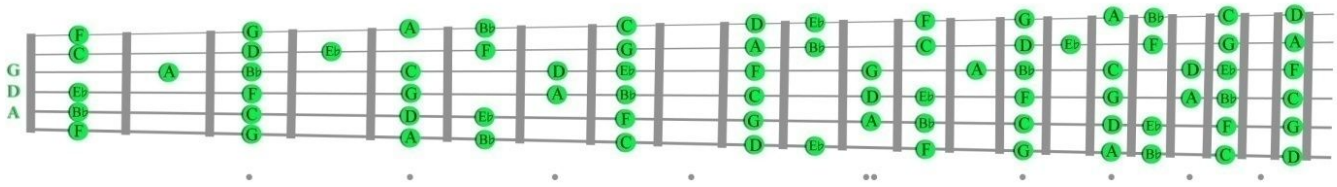
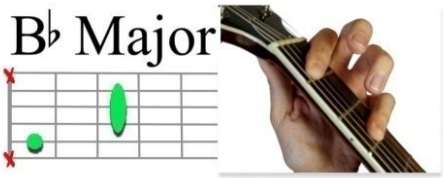
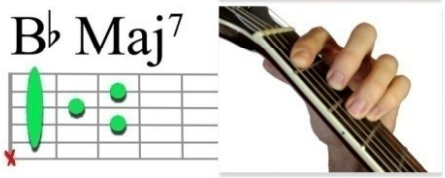


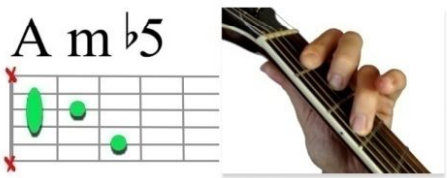
B♭ Major



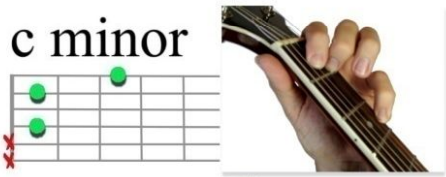
B♭ Maj7



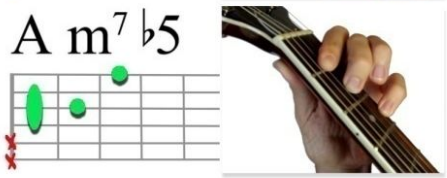
A m ♭5



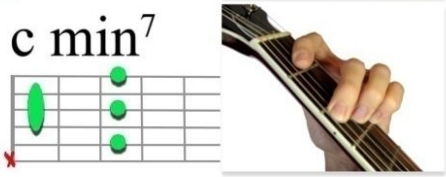
c minor

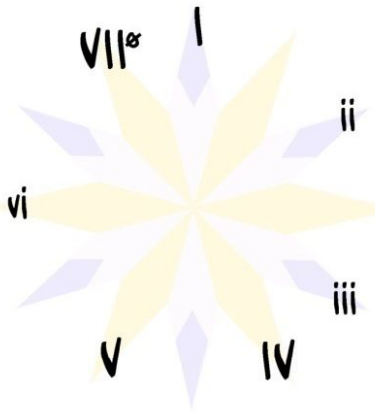


A m7 ♭5

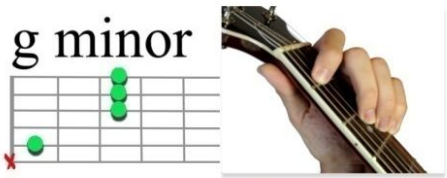


c min7

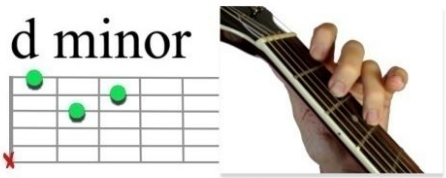




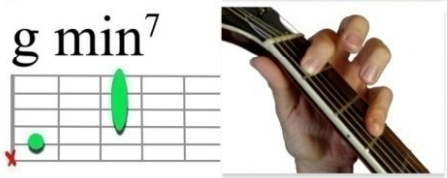
g minor



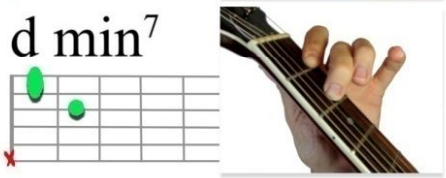
d minor



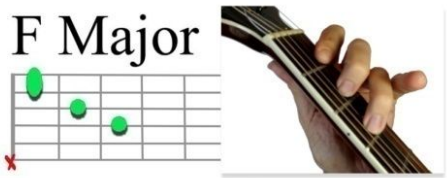
g min7



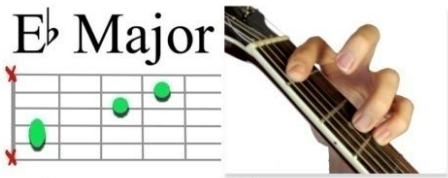
d min7



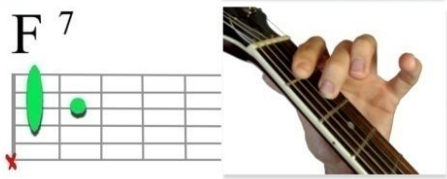
F Major



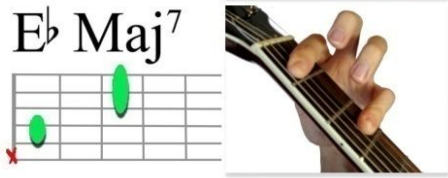
E♭ Major



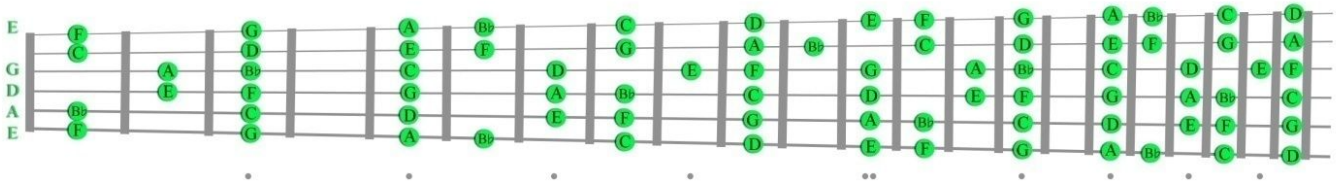
F 7



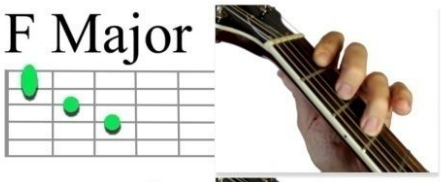
E♭ Maj7



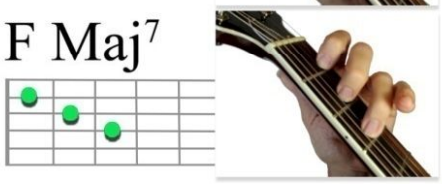
Key of F Major



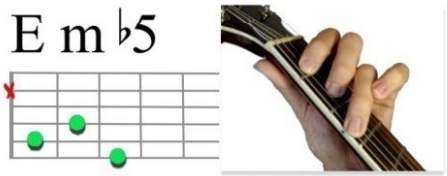
F Major



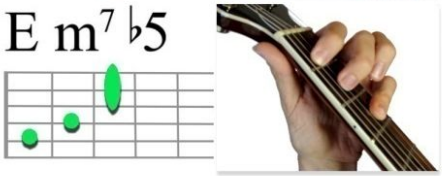
F Maj^7



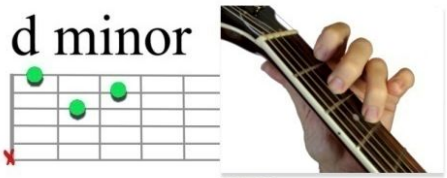
E m ♭5



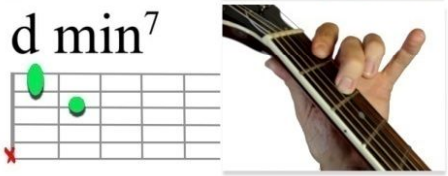
E m^7 ♭5



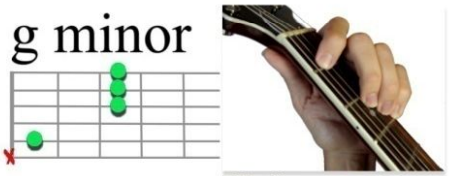
d minor



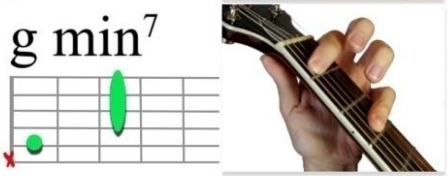
d min^7



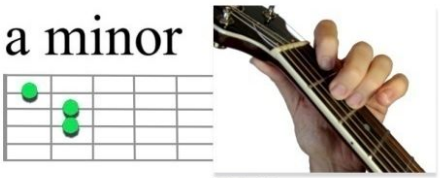
g minor



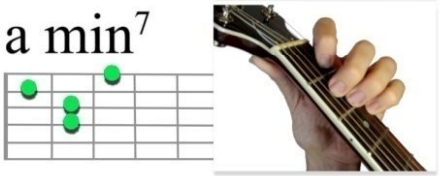
g min^7

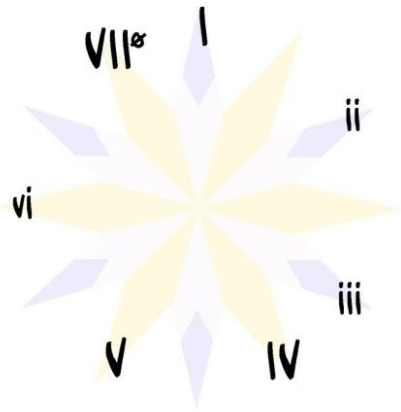


a minor

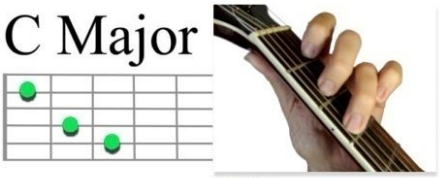


a min^7

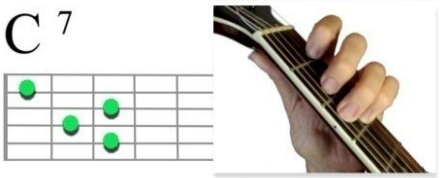




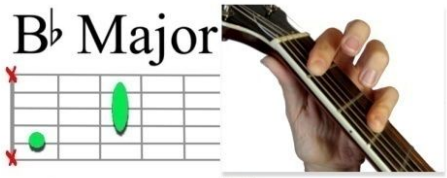
C Major



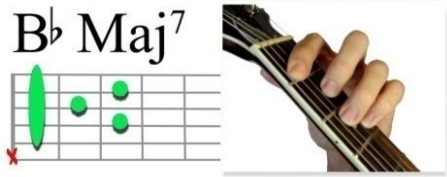
C ^{7}



B♭ Major



B♭ Maj^7



Make your own Musical Compass

Step 1; For best results, print out cut-out on thick photo paper such or card stock

or

use a glue stick to glue to a thicker sheet of paper, such as poster paper.

Step 2; Seperately cut out note wheel and square base.

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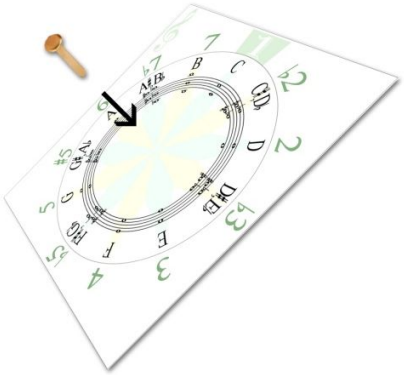
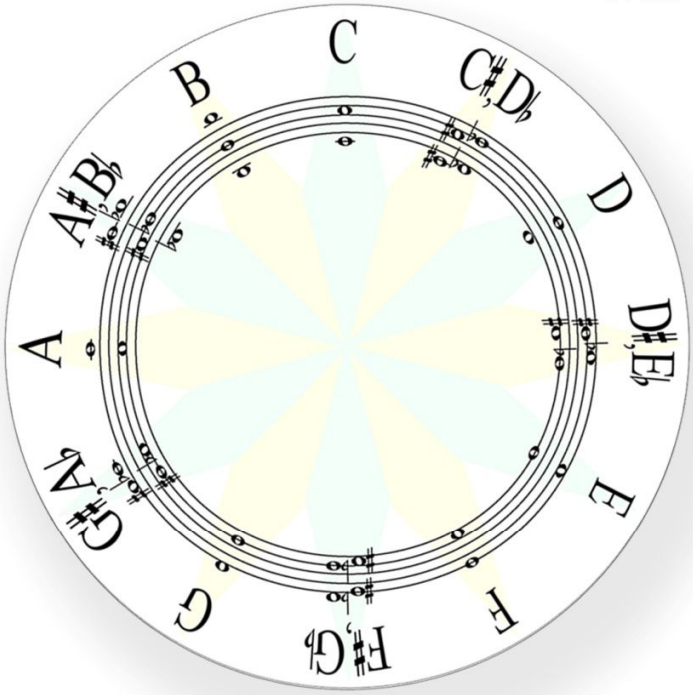
Step 3; Use a paper fastener to punch a small hole through the *exact* center of both the note wheel and base.

Step 4; Place note wheel on top of base and place paper fastener through both centers.

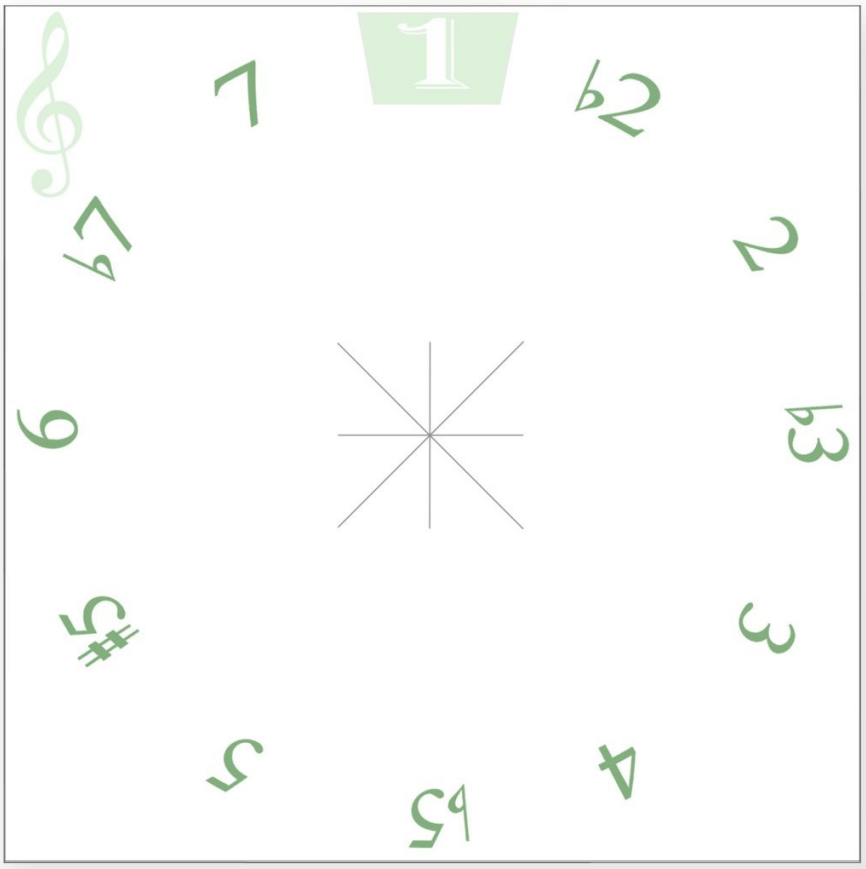


Step 5; Fold fastener neatly on back side of base and make sure that wheel can rotate both clockwise and counter-clockwise.

Note Wheel

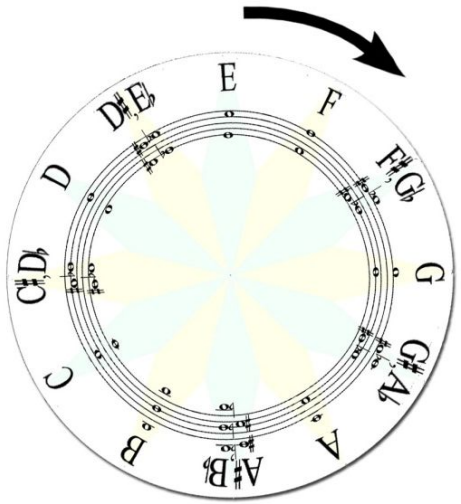


Base



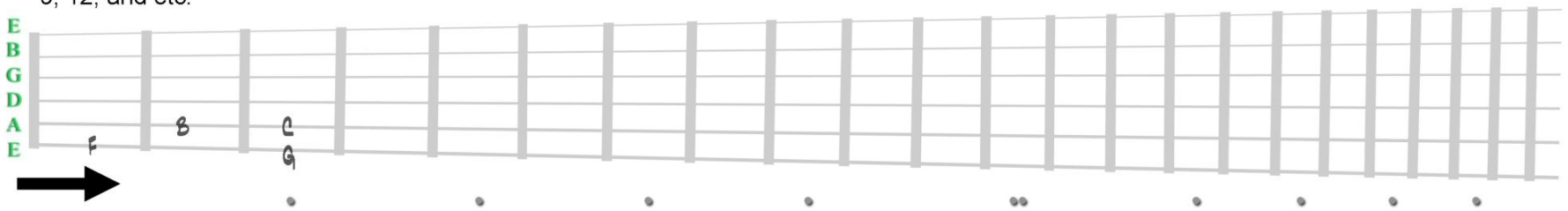
Getting to Know the Fretboard

Use the note wheel to label the notes on the fretboard. Start from the notes of the open strings and move around the note wheel clockwise to find the notes as they move up in pitch on the fretboard from left to right. Be sure to use a pencil in case you need to erase.



Each space on the wheel represents one fret. So, for example, from E to F is only one fret, while F to G is two frets. When you move all the way around the wheel twelve spaces, it's the same as moving up twelve frets on the guitar; you've reached an octave and the note names repeat. Only label the natural notes; A, B, C, D, E, & F. If you are able to find these, you'll know where the sharp and flat notes will fall.

The fretboard is depicted as if you are looking down at the guitar while holding it, so the string on the bottom is the low E string, and the string on top is the high E string and etc. The dots below correspond to the fret markers on your guitar on frets, 3, 5, 7, 9, 12, and etc.



How to Learn;

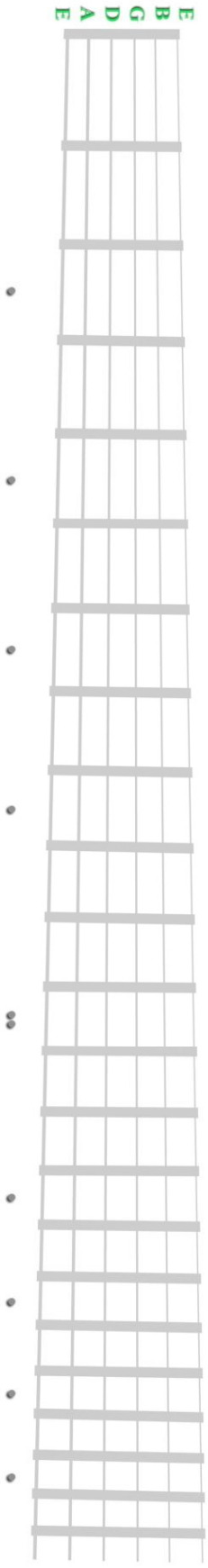
Repeat this exercise at least every other day as you learn the fretboard in stages. First, make it your goal to memorize all the notes on the fretboard within the first five frets. Then, as you begin to internalize the fretboard more and more, memorize the notes on the fourth, fifth, and sixth strings all the way up. Lastly, memorize the higher notes on the first, second and third strings. Time yourself. You won't be finished repeating and learning from this exercise until you are able to label all the notes on the fretboard without second guessing in under one minute and thirty seconds!

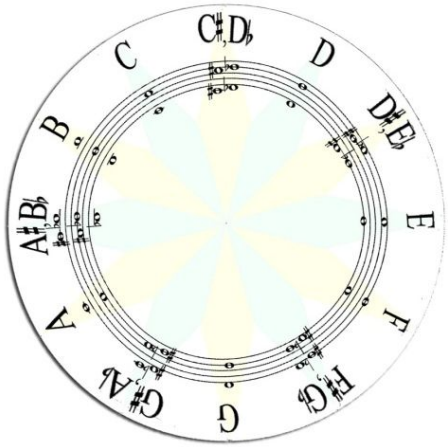
How to Check for Mistakes;

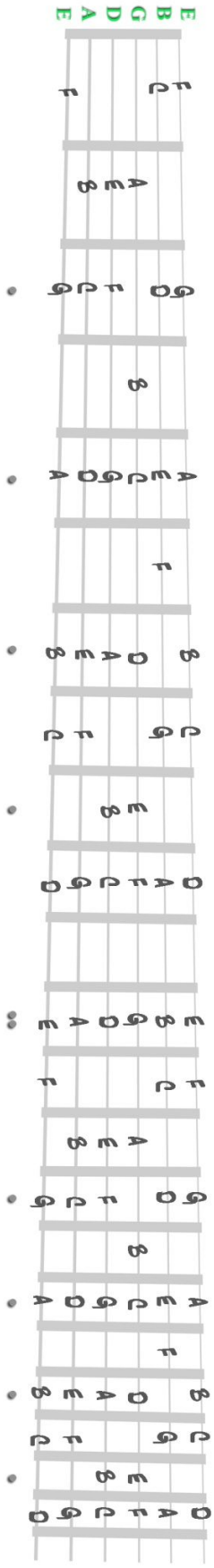
- Make sure that the top and bottom strings are always the same note name.

- When you get all the way to the twelfth fret, (the double dot marker) you've gone up one whole octave from the open strings, so make sure that the note names are the same as the open strings (E, A, D, G, B, & E). If the notes on the twelfth fret don't match the open strings, you've made a mistake somewhere and will need to retrace your steps.

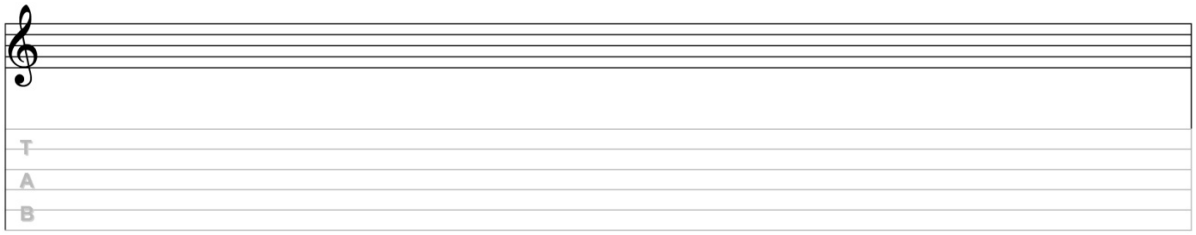
- Use your knowledge of the five octave positions to make sure that the notes you've labelled fit in where they are supposed to.

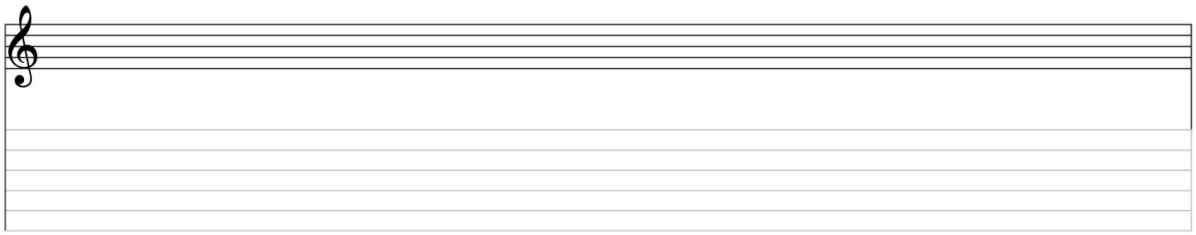

E A D G B E

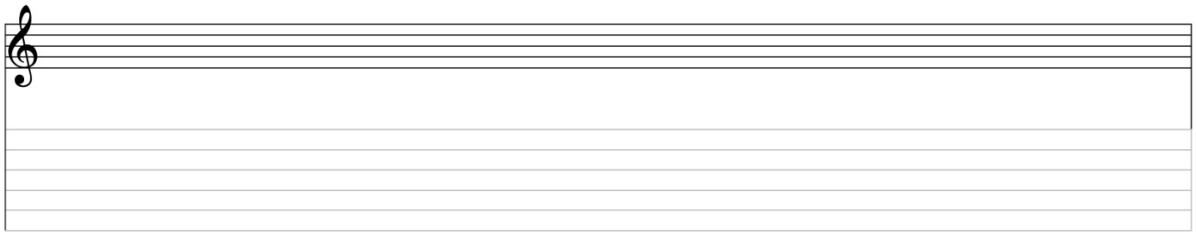

C C♯,D♭ D D♯,E♭ E F F♯,G♭ G G♯,A♭ A A♯,B♭ B

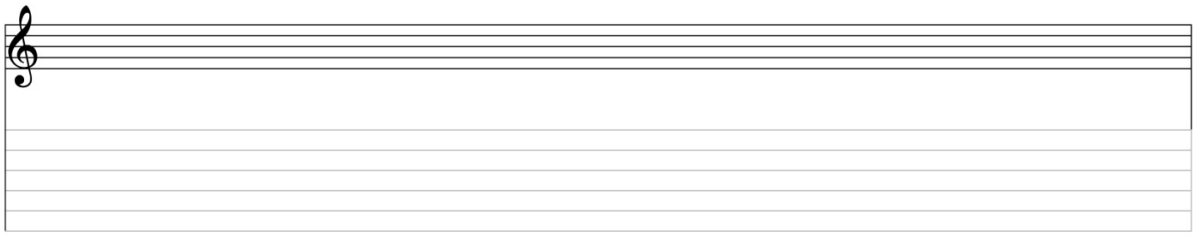

E B G D A E
F C
B E A
G C F G
B
A D G C E A
F
B E A D B
C F G C
E B
D G C F A D
E A D G B E
F C F
B E A
G C F G
B
A D G C E A
F
B E A D B
C F G C
B E
D G C F A D

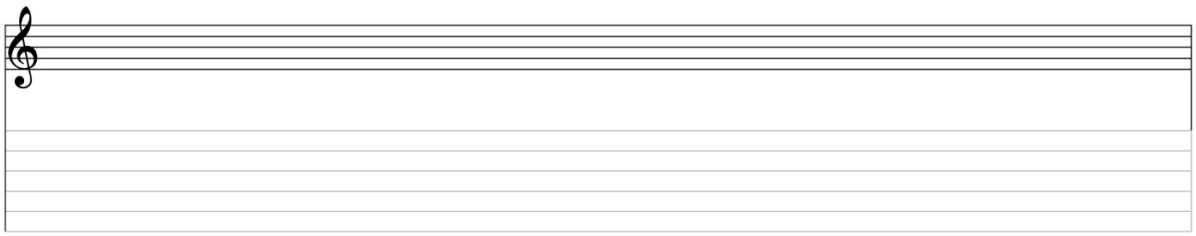
Notes

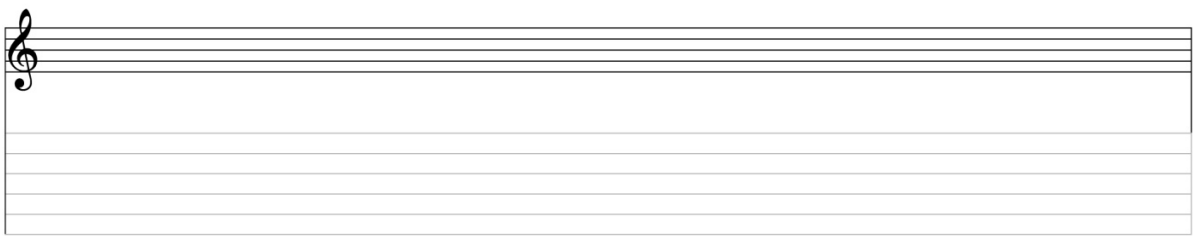












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