GUITAR THEORY REVOLUTION

Guitar Music Theory for Beginners

www.guitartheoryrevolution.info

You can find out more about Color Music® at: http://mycolormusic.com

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Introduction

Thank you for choosing Guitar Theory Revolution to help you become a better guitar player and musician.

In this book I'll be showing you how to learn and practically use music theory as a guitar player. Guitar players typically struggle with music theory because it is taught with outdated conventional thinking and mostly from within a paradigm that assumes that the piano is the best instrument for the job.

This makes the process unnecessarily confusing for guitarists. Considering the nature of this stringed instrument it is in fact much easier to learn theory as a guitar player than most people think, as you'll find out in this book.

I know there is plenty of free information out there already but I believe I have a unique way of explaining the topic to guitar players. While it is controversial it has proven to be very effective for people that are new to the guitar or those that have tried learning theory in the past but found it difficult to understand and apply.

One of the differences between this book and others you may have encountered is that I'm not going to dump a lot of information on you and leave you to figure out how to learn, memorise and use it. Because there is a difference between being handed information and being taught how to practically use it. As far as I am concerned you haven't been taught and you haven't learned something until you can use it.

A special thank you goes to Mike George of the Color Music Company. Mike has graciously allowed me to use parts of his Color Music® system which helps musicians learn and understand music theory as well as learn to read standard music notation. You can find out more about Color Music®, including lessons, charts, scores and labels at:

http://mycolormusic.com/

I hope you enjoy the book and that you find it useful. Please get in touch with your comments and questions.

Neill

neill@guitartheoryrevolution.info

How To Use This Book

The nature of music theory is such that its many elements rely on each other in a circular fashion: “A because of B because of C because of A again”. So as you work through the book you'll see the same ideas repeated in different ways or from a different perspective.

This is great because it makes learning easier and gives you a deeper understanding of how everything fits together. It also means that you'll benefit from working through the book several times. So just because you haven't completely mastered a certain section doesn't mean you can't continue reading and return at a later time to memorise a particular scale or work on a specific exercise again. But it is important that you at least try the exercises in each chapter because without doing so you won't link the knowledge in your mind to what your hands should be doing on the fretboard.

Standard music theory stays the same regardless of how your instrument is tuned, but standard tuning (which will be explained in Chapter 1) is particularly good at revealing fundamental aspects of Western music theory. Therefore in order to follow the lessons in this book you must keep your guitar in standard tuning. As you become more advanced you will be able to try different tunings and will still be able to apply your theoretical knowledge.

Note that all the diagrams in this book are for guitar players who fret notes with their left hand and strum the strings with their right hand. If you play the other way round you will need to mirror the diagrams.

My method of teaching is unconventional in that I try to avoid many of the confusing terms people associate with music theory. This doesn't mean that what you are being taught is incompatible with conventional methods. It's just being explained to you in a way that gives you a deeper understanding. At the end of the book you'll be shown how you can communicate with other musicians who have learned in different ways and so that you will be able to continue learning from other sources.

I provide free videos that cover many of the topics in this book on the Guitar Theory Revolution YouTube channel so check it out if you want more visual learning aids:

http://www.youtube.com/user/TheGTRChannel

Also make sure to visit my site to find more lessons, videos, diagrams as well as information about seminars and private teaching.

Chapter 1: Learning The Fretboard

In This Chapter

- Numbering the strings
- The names of the notes
- The Universal Note Pattern
- How to learn all the notes on the fretboard
- The colours and shapes of the notes

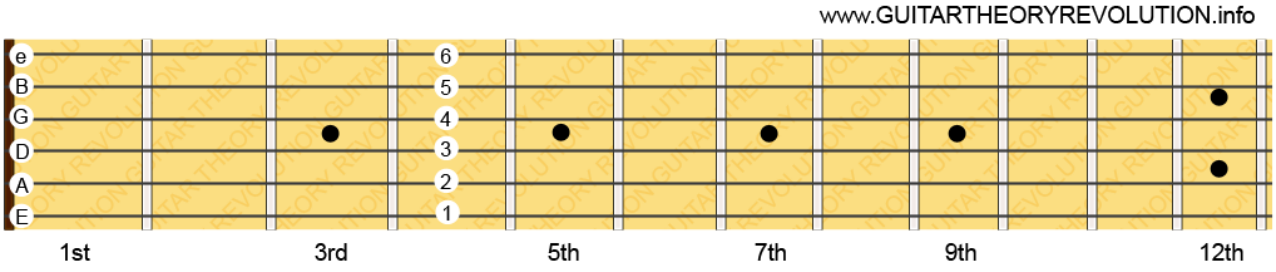
1.1 Numbering the strings

The easiest way to communicate about the strings on the guitar is by using their note names (when the guitar is tuned in standard tuning), E, A, D, G, B, e, and you'll pick up those names quickly as you go through the lessons.

But sometimes it is handy to count the strings in which case you number them 1 to 6. I prefer to count the strings from the thickest (closest to your face) to the thinnest string (closest to the ground). This is the first of a few ways in which I go against the conventional ways in which guitar playing is taught. Although it must be said that it is not essential to using my method so feel free to ignore it.

A benefit of numbering strings in this way is that we can then treat the fretboard as a grid and describe note locations with coordinates. So imagine there is an X–axis horizontally along the bottom of the guitar neck and a Y-axis vertically along its side. Coordinates for notes can then be given in the standard (X,Y) format. So the coordinates for the G note at the 3rd fret of the 1st string can be noted as (3,1) and the A on 2nd fret of the 4th string can be noted as (2,4).

Below is a picture of a guitar fretboard from the 1st to the 12th fret as seen from above (Note this is how it looks for someone who frets the notes with their left hand and strums the strings with their right hand. If you play in the opposite way you will need to mirror the image). The thickest string the low 'E', is marked as 1. It is the one closest to your face when holding the guitar. While the thinnest string, the high 'e' at the top of the image is marked as the 6th string.



Most guitars have dots at the 3rd, 5th, 7th, 9th and 12th fret to help you see where your fingers are placed on the neck. The head of the guitar with the tuners is off the page to the left of the brown nut while the guitar continues to the right past the 12th fret up to the 22nd or 24th fret depending on your guitar.

Note that everything after the 12th fret (where the two black dots are located) is a repeat of the first 12 frets. The first 12 frets span one octave on each string and everything after that is in the second octave. So learning everything between the 1st and 12th fret will also teach you the other half of the fretboard.

1.2 The note names

The way we currently talk about and describe music and music theory is the result of an accumulation of decisions made over the course of hundreds of years, some dating back to the middle-ages. In this book I'm going to concentrate strictly on what you need to know in order to make learning as easy as possible. Some things are unavoidable though, such as the names of the notes.

To put it very briefly and simply, when music was first written down by medieval monks they only had to deal with seven different notes which they named C, D, E, F, G, A and B (They didn't want to confuse people who were learning the Alphabet). Later they learned that there were five more notes in between these original seven

Rather than use more letters from the alphabet they came up with #'s (sharps) and b's (flats) to describe these extra notes. For example the note between C and D can be called either a C# or Db. But there is no extra note between E and F or between B and C. There is no particular reason for this, only five new note names were needed so there was no need to have more sharp/flat notes.

We ended up with the following 12 notes in Western music:

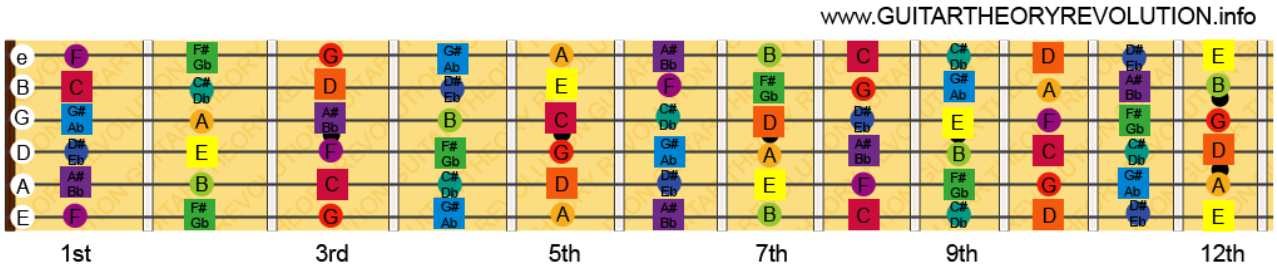
C, C#/Db, D, D#/Eb, E, F, F#/Gb, G, G#/Ab, A, A#/Bb and **B.**

The notes C# and Db (and any other #/b note) are technically the same note in that they are the same pitch, depending on the key signature you encounter them in they will be spelled differently. These are said to be enharmonically equivalent.

1.3 Learning the notes on the fretboard

So there are 12 different notes to learn: C, C#/Db, D, D#/Eb, E, F, F#/Gb, G, G#/Ab, A, A#/Bb, B (Sometimes called the chromatic scale). All the notes appear on the strings in this order, but with different starting points. This is one way that many people think you should learn all the notes, but it is slow and ponderous. There are much better ways to do this, which I will show you in a moment.

Depending on how many frets your guitar has (most have 22 or 24 frets) you would normally have 144 note locations to learn. But remember each string spans two octaves with everything repeated after the 12th fret. This means you can cut the amount of notes that need to be learned in half. Each of the 12 different notes is represented six times within the first 12 fret stretch giving us 72 note placements to remember.



For now we'll ignore the sharps and flats, meaning we can ignore another 30 notes. This leaves us with just 42 notes to learn. C, D, E, F, G, A and B. Already this is a lot more manageable. Once you've learned these note locations you'll automatically see the other notes in between.

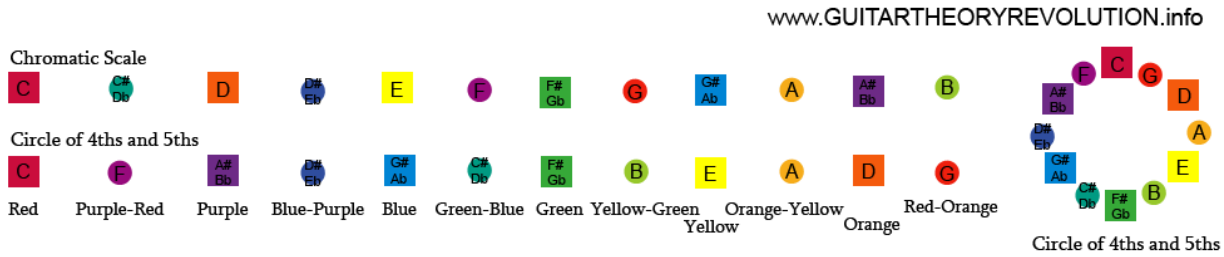
Notice how the notes of the open strings (the ones you get when striking the string without fretting it anywhere; represented by the white notes on the left side) are the same as those at the 12th fret, namely EADGBe. This means that all the notes repeat in the same way after the 12th fret. The notes at the 13th fret are the same as those at the 1st, those at the 14th are the same as those at the 2nd etc.

1.4 Colours and shapes

There is a logic behind the colours and shapes used for each note in all the diagrams in this book. The colours and shapes were developed by Mike George and are an ingenious way of representing the inner working of music in graphical form which will become apparent later.

If you want to find out more about Mike George's Color Music® visit: http://mycolormusic.com/ There you'll find resources (including labels to stick on your guitar's fretboard) that will help you learn to read standard music notation and understand music theory in an easy way.

At this stage you don't have to consciously try and remember which colour and shape goes with which note. For now just allow yourself to naturally absorb the information as you work through the book.



Colour and Shape Key

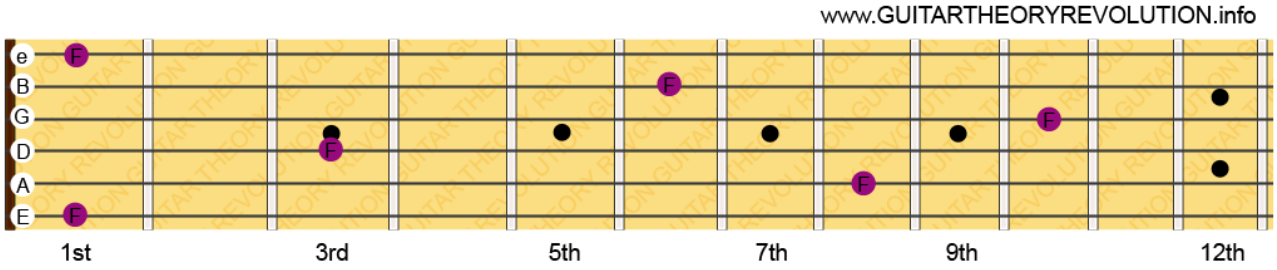
Note	Colour	Shape
C	Red	Square
F	Purple-Red	Circle
A#/Bb	Purple	Square
D#/Eb	Blue-Purple	Circle
G#/Ab	Blue	Square
C#/Db	Green-Blue	Circle
F#/Gb	Green	Square
B	Yellow-Green	Circle
E	Yellow	Square
A	Orange-Yellow	Circle
D	Orange	Square
G	Red-Orange	Circle

Note: There is a reason why the notes follow the colours of the rainbow in this order, which you will be shown in the section on the Circle of 4ths and 5ths.

1.5 The Universal Note Pattern

Now you are going to start learning the locations of all the notes, just one note at a time between the 1st and 12th fret. You'll be able to do this a lot quicker and easier than you may think when I show you the pattern they follow and the exercises to practice.

Lets start with the location of all the F notes.



As you can see there are six F's on the fretboard between the 1st and 12th fret. Each F note appears only once on each string between the 1st and 12th fret. Remember the exact same pattern repeats after the 12th fret. So there will be an F on the 13th fret of the 1st string and on the 13th fret of the 6th string, an F at the 15th fret on the 3rd string etc.

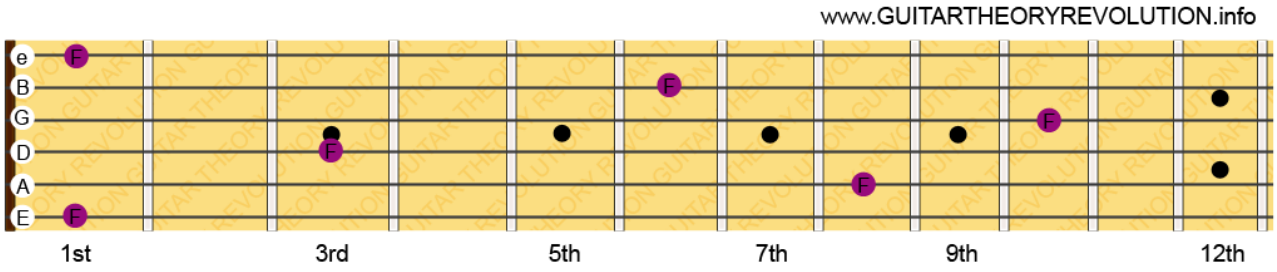
This pattern is the same for all other notes, each note appears six times between the 1st and 12th fret. The only difference is that the pattern has a different starting location for each note.

1.6 Diagrams for the notes F, G, A, B, C, D and E

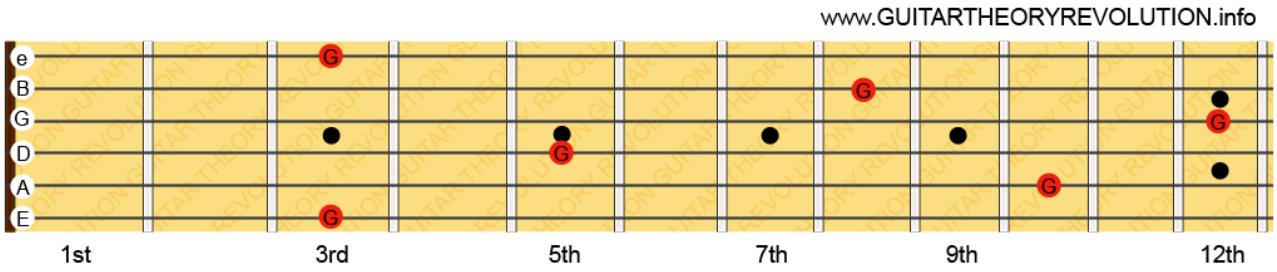
Below you'll find the patterns for the notes F, G, A, B, C, D and E. As mentioned earlier they all share the same pattern but each one starts at a different location on the fretboard. The pattern for F starts at the 1st fret, G at the 3rd, A at the 5th, B at the 7th, C at the 8th, D at the 10th and E at the 12th (or with the open E and e strings).

Remember that all the patterns continue on past the 12th fret and that the notes from the 13th fret to the 24th are the same as the first 12. So you can also imagine that once the pattern reaches the 12th fret it loops around and continues at the 1st fret. It will make sense when you look at the diagrams below.

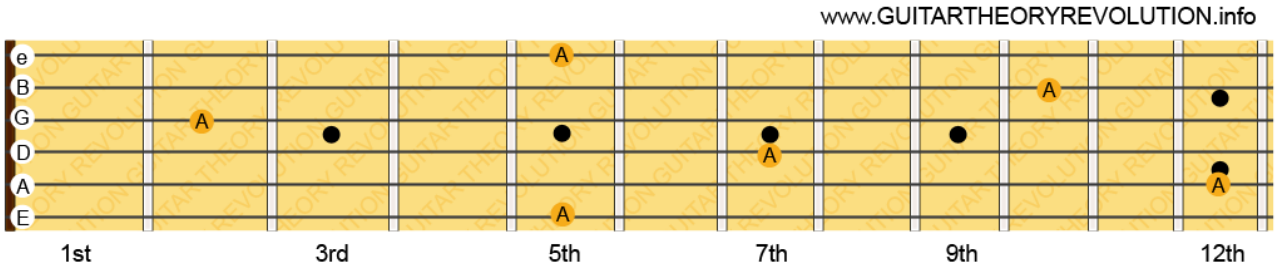
F: Starting at the 1st fret



G: Starting at 3rd fret



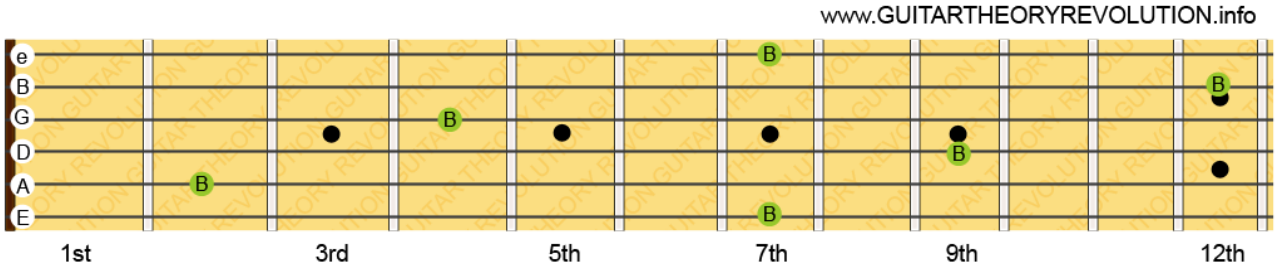
A: Starting at the 5th fret



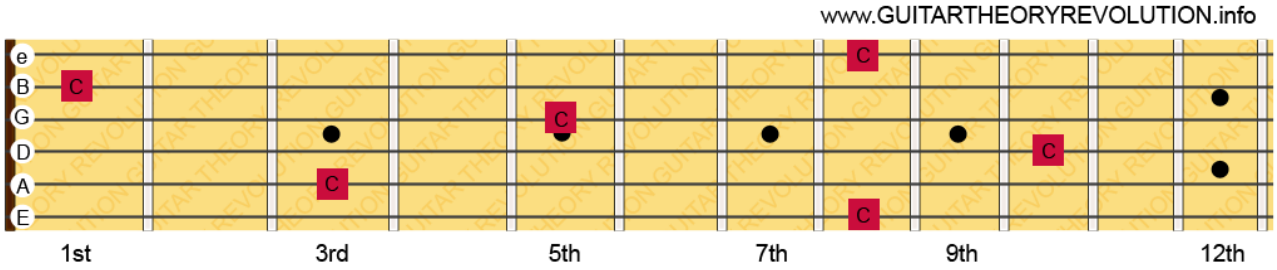
Note that the pattern continues past the 12th fret with an A on the 14th fret of the 4th string and so there is also an A at the 2nd fret of the 4th string.

B: Starting at the 7th fret

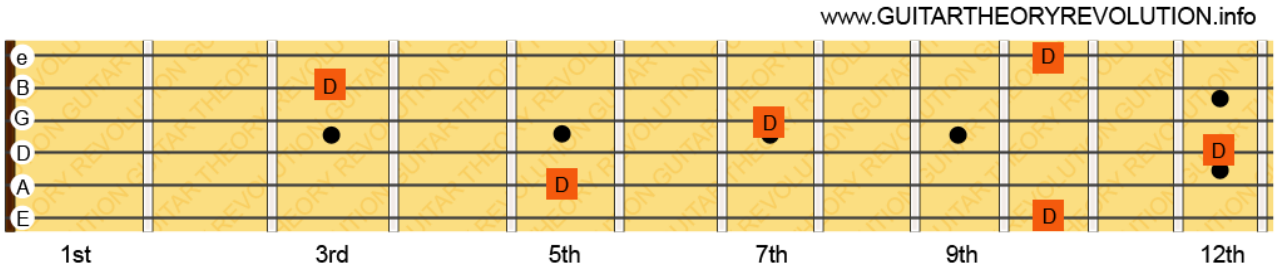
Now there are 2 notes past the 12th, so that means the pattern loops around and also appear at the 2nd fret and the 4th fret.



C: Starting at the 8th fret

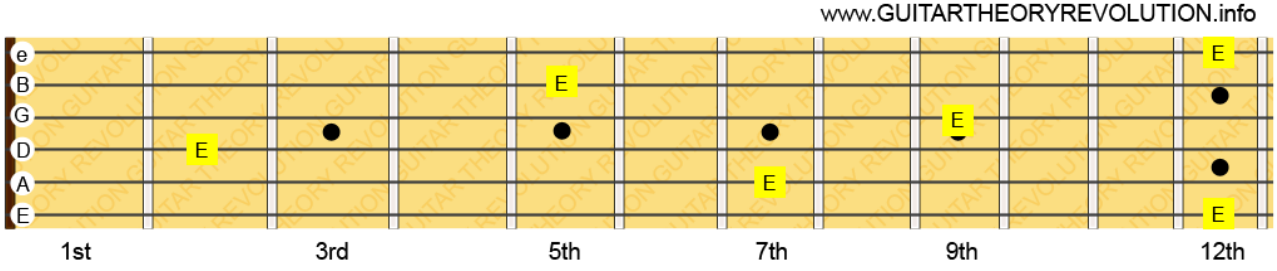


D: Starting at the 10th fret



E: Starting at the 12 fret

You can also imagine this pattern starting with the open E and e strings.



1.7 Exercises

These are the exercises to do to learn the Universal Note Pattern. Make sure to sing the notes or hum along as you practice. Engaging sight, sound and touch all together will make learning the note locations easier.

You'll know you've learned the location of a note when you can randomly skip between all its different locations without having to think too long about it or feel the need to count string or fret numbers to find locations (although this is fine in the beginning).

Exercise 1: Vertically across the strings

Place your finger on the F of the 1st (Low E, the thickest) string at the 1st fret. Hold down the string, strike it and sing or hum along with the note. Then, move up towards the 2nd string (A string) and find the next F, it's at the 8th fret. Again hold it down, strike it and sing along. If you want, imagine a purple-red circle at each F.

Continue moving to each next string until you have played all the F notes. Once you have reached the top go back down again in reverse order.

Exercise 2: Horizontally along the strings

Start with the F notes on the 1st and 6th string then find each F note as you move up the fretboard to the right. The next one will be the F on the 3rd fret of the 3rd string and the next on the 6th fret of the 5th string. Once you reach the last one move back in the opposite direction till you are at the F notes on the 1st fret on the 1st and 6th strings.

Exercise 3: Alternating exercise

This exercise is probably the most important. Choose any of the the F notes, for example the F at the 1st fret on the 1st string and use it as a returning point, moving back to it between each other F note. For example find the F notes in the following order: (1,1), (3,3), (1,1), (6,5), (1,1) etc. (Remember I represent the locations as X,Y coordinates. The X is the fret number and the Y is the string number).

Exercise 4: Notice What you're playing

Next time you are playing a piece of music see if you are using any notes that you are currently memorising. At this stage you should be able to 'see' some of the notes on the fretboard.

Exercise 5: Finding notes all over the fretboard

Up until now you've been learning the names of the notes on the first 12 frets of the fretboard. Now it's time to learn them for the rest of the fretboard.

Remember that the whole pattern just repeats in the same way after the 12th fret. If it helps you can pretend that the neck has been chopped in half (or use a capo at the 12th fret if you have one) and just focus on that half for a while. You'll soon know the second half just as well as the first half.

Most guitars have dots on the fretboard at the 3rd, 5th, 7th and 9th frets, then two dots at the 12th fret. Then a single dot at the 15th (12+3), 17th (12+5 etc.), 19th, 21st frets. Some guitars even span two whole octaves and so go as far as 24 frets where you'll find two dots again. These dots will help you navigate around the fretboard.

Exercise 6: Learn the colour and shape code

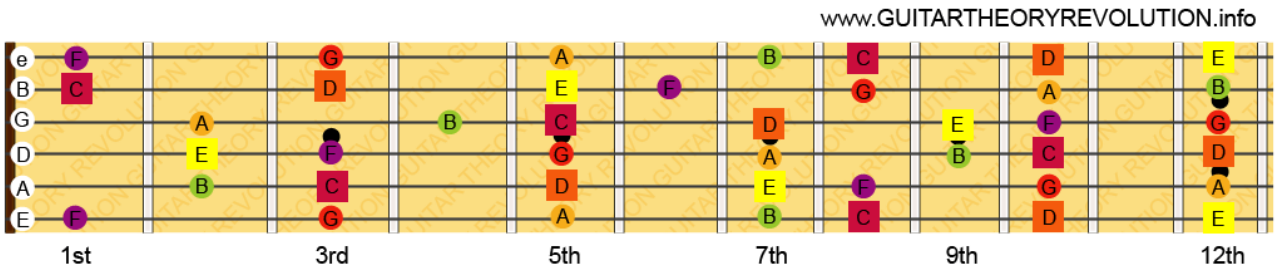
Once you've mastered all the note locations and you've read the whole book a couple of times you can start learning the colour and shape codes for each note. No doubt you'll have picked up many already, all you have to do is focus on the one's you aren't so sure about.

You'll find that your knowledge of the BEAD-GCF pattern and the circle of 4ths and 5ths (covered later in this book) will make this a lot easier than you may think right now.

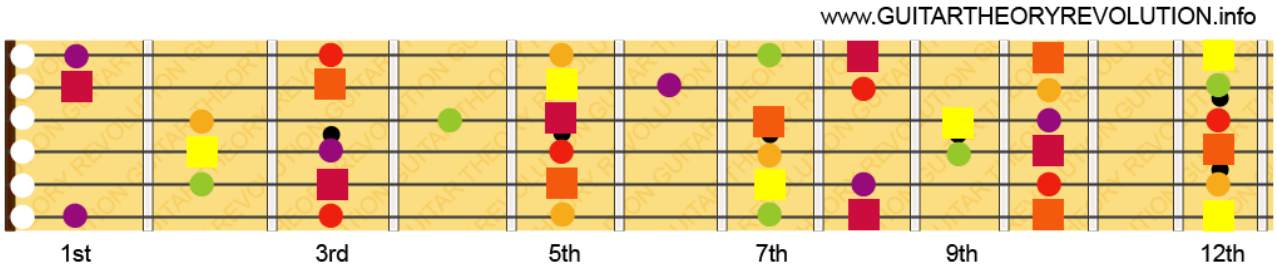
1.8 Test Yourself

It's time to consolidate what you've learned so far. Below you'll see a diagram with the notes C, D, E, F, G, A and B.

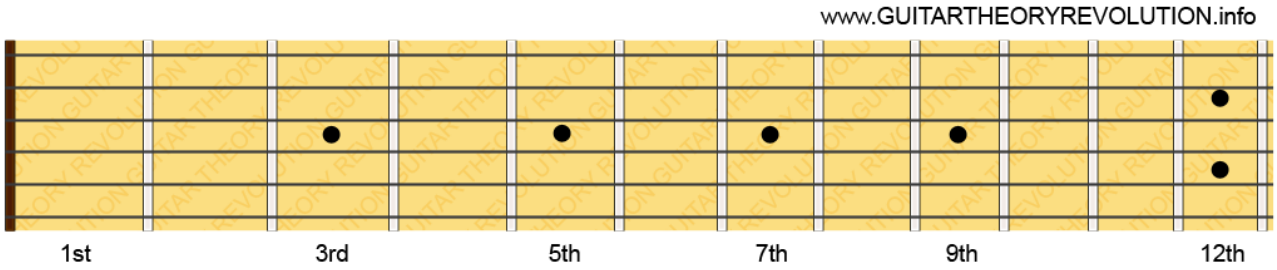
Take a few days to really memorize these notes with the exercises I've provided. The goal is to be able to look at the fretboard and see the note names in your mind's eye. Singing along with the notes and vividly visualizing the colour and shape of each will help you achieve this.



Use the following blank diagrams to test yourself and see if you can identify all the notes. Practice this exercise with your guitar so you can play the notes and hum or sing along.



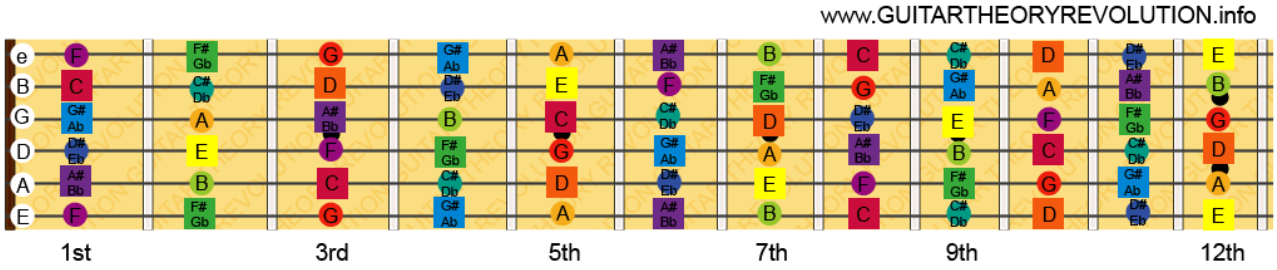
For a bigger challenge try finding all the notes on this blank fretboard.



1.9 Filling in the blanks

Finally it's time to fill in all the blanks that are still left on the fretboard. This will be easy since they are named after the notes that lie between the ones you already know. For example you already know where all the F's and G's are located. So between them you'll find the F# / Gb notes.

If you've practised the previous exercises correctly you'll automatically see these. But if you still aren't sure you should know that all these notes follow the same pattern as the others, one note on each string, six times in each 12 fret span.



To really burn this into your memory practice naming all the notes vertically across the strings at each fret and horizontally along each string (the latter will be easier since you can just follow the spelling F- F#/Gb- G -G#/Ab- A -A#/Bb- B- C- C#/Cb- D- D#/Eb- E. Use the blank fretboard image I gave you earlier, or test yourself with your guitar.

1.10 Chapter summary

- Guitar strings are numbered 1 through 6 from the thickest to the thinnest.
- The twelve note names are: C, C#, D, D#, E, F, F#, G, G#, A, A#, B.
- The Universal Note Pattern means each note appears once on each string in a 12 fret span. The pattern is the same for every note and repeats after the twelfth fret.

Practice

- The names of all the notes.
- The Universal Note Pattern.
- The locations of the notes C, D, E, F, G, A and B.
- The locations of the #'s and b's.
- The colour and shape code for each note (once you've mastered the other exercises).

Chapter 2: The Five Fret Pattern and Intervals

In This Chapter

- Relationships and distances between notes
- How the guitar is tuned
- The Five Fret Pattern
- Intervals

2.1 Relationships and distances between notes

One of the most important things to understand about music is that it arises out of the relationships between notes. A single note is not yet music but two notes in succession can already be called a very rudimentary form of music.

The great thing about the guitar is that the relationships of notes can easily be seen on the fretboard. For example, you can pluck an open string, then hold it down at the half-way point, where the two dots are on the fret board and hear the same note an octave higher (an octave higher is the same note vibrating at double the frequency).

Unlike many other instruments you can easily count the relative distance from one note to another in terms of how many frets separate them. As with any other measurement of distance your starting point is always 0, just like a ruler starts at 0.

For example, place your finger behind 1st fret of the low E string and play that note. This is an F and when 'measuring distances' in this example this will be the 0 point. Now move up five frets (towards the bridge, counting 0, 1, 2, 3, 4, 5) and play the note, it should be an A#. The 'distance' between these two notes is five frets.

Another example: starting at the G (the 3rd fret on the 1st string), which is your new 0 point, count up five frets along the string to reach C. So you can see there is a difference between the absolute numbers used to denote each fret and the relative numbers that you use to count out a distance between one note and the next.

The reason why I want you to be aware that you can simply measure the distance between notes in this manner is because it is the most fundamental way in which you can talk about the underlying relationship. It is something which is always there for you to see and something that will never change, regardless of what terms you use to describe music. If you're thinking to yourself how painfully obvious this is, you're right. Unfortunately in most teaching of music theory to guitar players this obvious fact about the instrument is rarely exploited. (Still confused? Watch this video on YouTube: GTR003: The Five Fret Pattern).

2.2 How the guitar is tuned

When you take a string and pluck it, it will vibrate at a certain frequency, a note. If you want to make different notes with it you have to shorten the length of the string, something you do on a guitar by holding it down behind a fret.

It turns out that there are ratios at which you can hold down the string that sound good to the ear. These ratios are the 12 notes (including it's octave, the same note at double the frequency) of Western music (non-Western music uses different ratios and has different notes).

One ratio in particular stands out and that is a ratio of 3:4 where you hold down a string so that 3/4ths of it can vibrate. If you then take 3/4ths of what's left and then 3/4ths of that and continue in that way you will get all 12 notes. You can play this ration of 3:4 on each string by fretting each at the 5th fret.

The guitar is tuned in intervals (conventional name for the distance between two notes) of this five fret distance (most commonly called a Perfect 4th). Each string is tuned a 5 fret distance higher than the last except between the G and the B string where the fret distance is 4 frets. Because this interval distance of five frets is the most important interval in Western music it helps guitar players to easily play a great many chords and scales efficiently.

The anomaly between the G and B string shifts the pattern so chords can be held across all strings without causing the notes on the high e string to clash with those on the low E. If the pattern continued in five frets across all string you would get a tuning of E, A, D, G, C, F. The two outer strings, E and F would be 'one fret' (there is no sharp or flat between E and F) apart and this is the most dissonant sounding interval to the ear; a Minor 2nd. So the two top strings are lowered by one fret to avoid this issue.

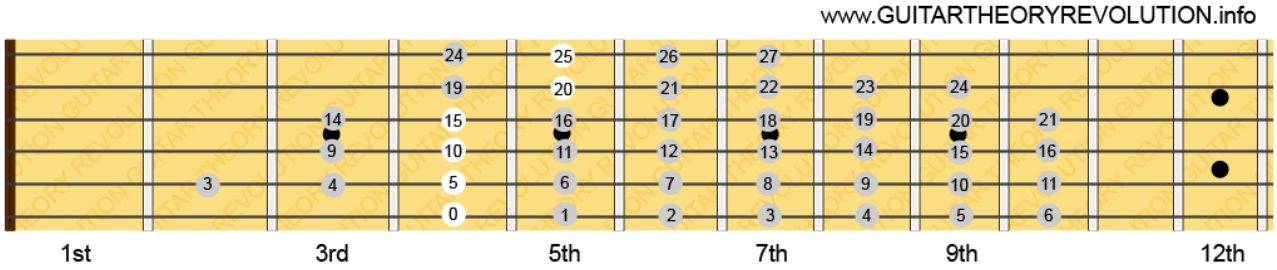
The standard tuning of the guitar is a compromise that allows for various chords to be played easily while reflecting the foundations of how Western music works. This is something we can access with the Five Fret Pattern. The DNA of Western music is literally built into a guitar that is tuned in standard tuning.

2.3 The Five Fret Pattern

The Five Fret Pattern is one of the most important things you can learn as a guitar player. One of the things guitarists struggle with when learning music theory is the confusing way in which numbers are used to describe different musical concepts. The way that intervals are named (Major 2nd or Perfect 5th) doesn't make much sense when looking at the fretboard. As a guitar player it is confusing to relate these terms to the fretboard because they don't describe the distance in fret numbers, something which you can easily count.

This pattern will help you easily see the fret distances on the guitar neck which will make learning scales and chords as well as ear-training easy. Once you have that strong foundation you'll be able to learn the the conventional ways of naming intervals, chords and scales much more easily.

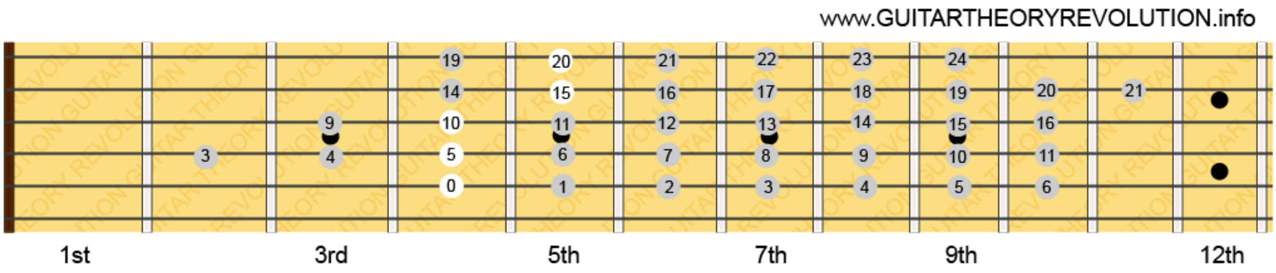
To find the Five Fret Pattern place your finger on any note on the fretboard. In this first example we'll pick G# on the low E string. This will be our zero point.

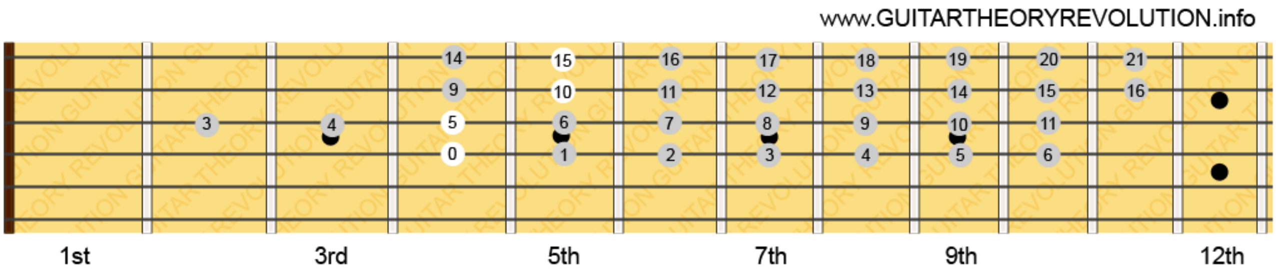


So starting with your finger on the 0 in the white circle (G#), count 5 frets along the string until you reach C#. Now you can also find C# on the 2nd string (the A string) where you see the number 5 in the white circle. The next string up, the number 10 in the white circle is the equivalent of moving 10 frets along the 1st string from the G#. So you can see how all the numbers in this diagram show fret distances from the starting point. Note how the number 24 in the diagram shows a G# but two octaves higher than the one on the 0 point. (You get the next octave up every 12 frets. E.g. 12, 24, 36 etc.).

As you can see moving up a string is the same as moving 5 frets along the string. This pattern is easy to remember because you only have to be able to count in 5's. But you do have to be mindful that the pattern on the highest two strings is shifted over towards the bridge by one fret because of how the strings are tuned in standard tuning.

In the diagrams below you can see what the pattern looks like when you choose your starting point on one of the other strings. Remember that this pattern appears the same way anywhere along the fretboard. All it does is show you relative fret distances.


www.GUITARTHEORYREVOLUTION.info
19 20 21 22 23 24
14 15 16 17 18 19 20 21
9 10 11 12 13 14 15 16
3 4 5 6 7 8 9 10 11
0 1 2 3 4 5 6
1st 3rd 5th 7th 9th 12th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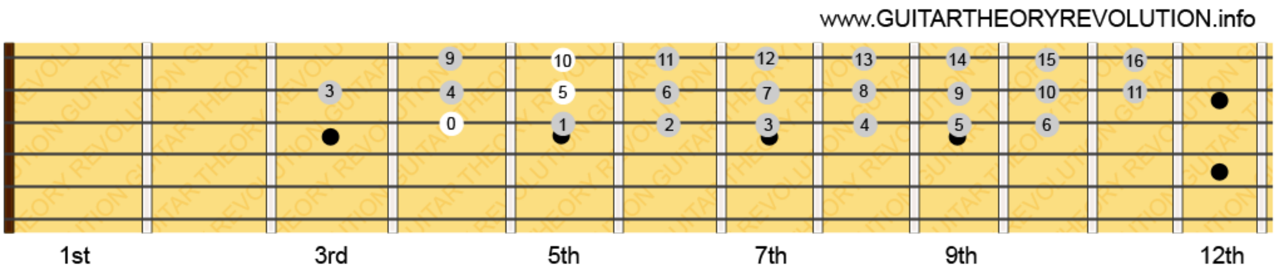
1st 3rd 5th 7th 9th 12th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3 4 5 6 7 8 9 10 11
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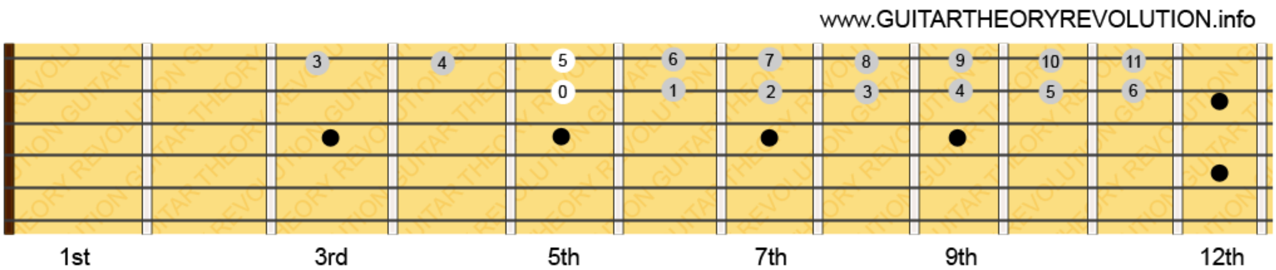
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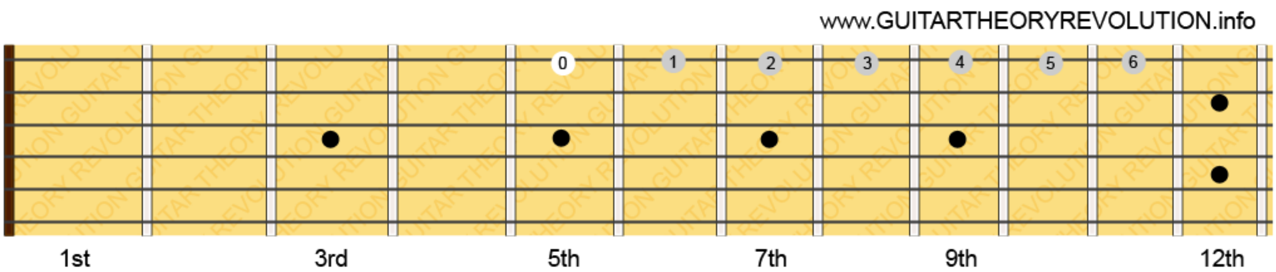
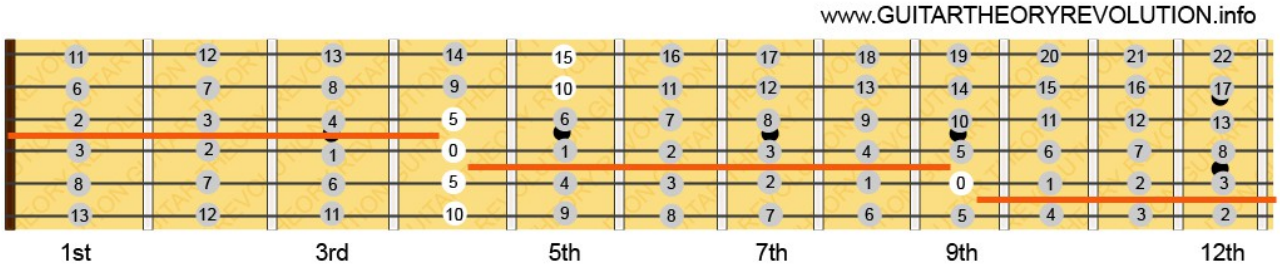
3 4 5 6 7 8 9 10 11
0 1 2 3 4 5 6
1st 3rd 5th 7th 9th 12th


www.GUITARTHEORYREVOLUTION.info
0 1 2 3 4 5 6
1st 3rd 5th 7th 9th 12th

2.4 Descending Five Fret Pattern

It's not necessary to understand this section in order to use the rest of the book, but it has been included for those that are curious. The question is: What happens underneath the different Five Fret Patterns? The diagram below shows the third Five Fret Pattern with the 0 point (F#) on the 4th fret of the D (3rd) string. What happens underneath the red line?



First of all the pattern is the same, only you have 0 at the top and , 5, 10, 15 etc. underneath it. So you can still count the fret distance from the 0 point in the opposite direction. It's like the coordinates on a map. Whether you move 1 mile to the East or West doesn't matter, the distance you travel is 1 mile in both cases.

But it's really important to note that there is a difference between moving 1 fret to the right of the 0 point (0 – 1 = F# - G) and 1 fret to the left (1 – 0 = F – F#). This means that you can't mix and match scale formulas and chord formulas across the red line (scale and chord formulas will be explained in later sections). The only way you can really use the descending pattern at this stage is to find intervals (explained in the next section as well). For everything else in this book the normal Five Fret Patterns are all that you need.

2.5 Why the Five Fret Pattern is useful

When you start learning the formulas for chords and scales you'll be able to play them all over the fretboard with the help of the Five Fret Pattern. If you know for example that the formula for a **Major** chord is **0**, **4**, **7** (0 is the root note plus a note 4 frets along and a note 7 frets along) then you can play Major chords all over the neck by simply placing your fingers on a 0, 4 and 7. (Or equivalents an octave higher. 0+12 = 12, 4+12 = 16 and 7+12 = 19).

Put your finger on a random place on the fretboard and see if you can visualise the Five Fret Pattern with the help of the diagrams. Now see if you can find a 4 and 7 or a 12, 16 and 19 that you can play all at once. Strum these notes and you will have played a Major Chord.

Now see if you can find chords using the **Minor** chord formula **0**, **3**, **7** (Or on higher octaves 0+12 = 12, 3+12 = 15 and 7+12 = 19).

You'll be introduced to a variety of scales and chord formulas later in the book, but in the coming chapters we will mostly be focusing on the Major scale.

2.6 So what is an interval?

Earlier I mentioned that the conventional term for the distance between two notes is 'interval'. In music theory an interval is the combination of two notes, either played together (harmonic intervals) or in succession (melodic intervals). So an interval is the 'musical distance' between two notes. Each of the 12 different intervals has its own name (in reality there are more interval names, but for now I've just listed the most common ones).

Below is a diagram of all the interval names, the corresponding fret distance (how to play it on the guitar) and an example from a root note (starting note) of C.

While it's not necessary to memorise these interval names to follow the method in this book they are the conventional terms used by many musicians and so they should be learned at some point to help you communicate with others.

Fret Distance	Interval Name	Example From The Root Note C	
0 – 0	Unison	C	(Same note twice)
0 – 1	Minor 2nd	C – C#	
0 – 2	Major 2nd	C – D	
0 – 3	Minor 3rd	C – D#	
0 – 4	Major 3rd	C – E	
0 – 5	Perfect 4th	C – F	
0 – 6	Augmented 4th or Diminished 5th	C – F#	(Also known as the Tritone)
0 – 7	Perfect 5th	C – G	
0 – 8	Minor 6th	C – G#	
0 – 9	Major 6th	C – A	
0 – 10	Minor 7th	C – A#	
0 – 11	Major 7th	C – B	
0 – 12	Octave	C – C	(Same note at double the frequency)

2.7 Chapter summary

- The difference between two notes is called an interval.
- Intervals can be measured in fret distances.
- Fret distances are counted from a 0 point.
- There are conventional names for intervals such as Minor 2nd, Major 3rd etc.
- The guitar is tuned in a particular way to make playing chords and scales easier.
- You can see how the guitar is tuned with the Five Fret Pattern.
- The Five Fret Pattern gives you easy access to the workings of the guitar.
- The Descending Five Fret Pattern has the same shape, but the numbers are reversed.
- You can only use the Descending pattern to find intervals.
- Chord and scale formulas can not be used across the red line.
- The chord and scale formulas in this book can not be used with the descending pattern.

Practice

- The Five Fret Pattern
- The conventional names of the intervals (eg. 0 – 5 = Perfect 4th).
- Recognising which intervals you are playing when you play songs.

Chapter 3: The Major and Natural Minor Scale

In This Chapter

- The Major and Natural Minor scale.
- How to improvise using the scales.

3.1 The Major scale

The Major scale is arguably the most important scale in Western music and is recognisable by almost everyone. Just sing “Do, Re, Mi, Fa, So, La, Ti, Do” and you'll be singing a Major scale.

The formula for the **Major scale** is:

0 – 2 – 4 – 5 – 7 – 9 – 11 – 12 (8 notes in total including the octave).

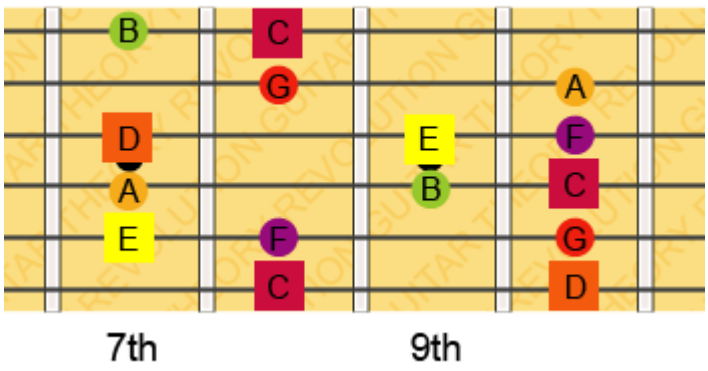
In the Key of C that would give you:

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

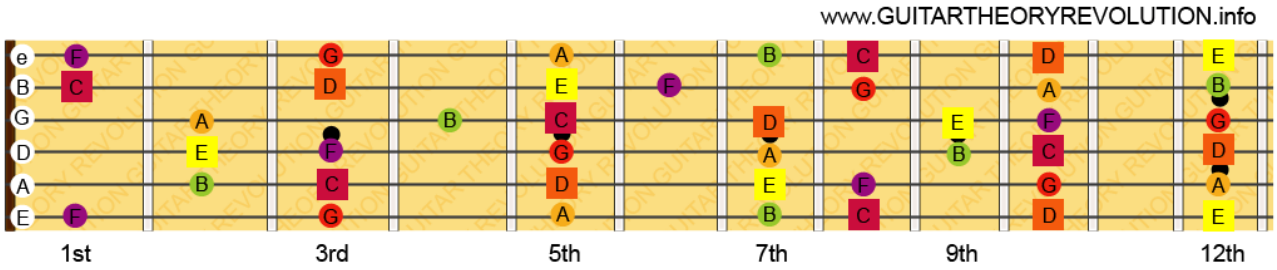
Try and find another major scale by choosing a random starting point on the fretboard and counting the frets along the string (or on other strings using the Five Fret Pattern). 0 is the root note, the next note is 2 frets along, the next one is 4 frets along etc.

On the whole guitar players like to play scales within so called 'boxes' of 3 to 4 frets because each fret is assigned a separate finger and it allows your hand to stay in the same location.

A quick search online for Major Scale images will give you plenty of patterns to practice so I'll just present you with one example here for the Major Scale in the key of C.
(Also check **Appendix A4: Additional Resources** for recommended chord and scale books.)



And here is an image of all the notes of the C Major scale on the first 12 frets:



You should practice playing the scale along one string, two strings, between five frets and in as many different combinations as you can think of until you have it memorised completely. It is the most important scale and is well worth learning.

3.2 The Natural Minor scale

The formula for the **Natural Minor**, also simply known as the Minor scale is:

0 – 2 – 3 – 5 – 7 - 8 – 10 – 12

In the key of A this will give you:

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

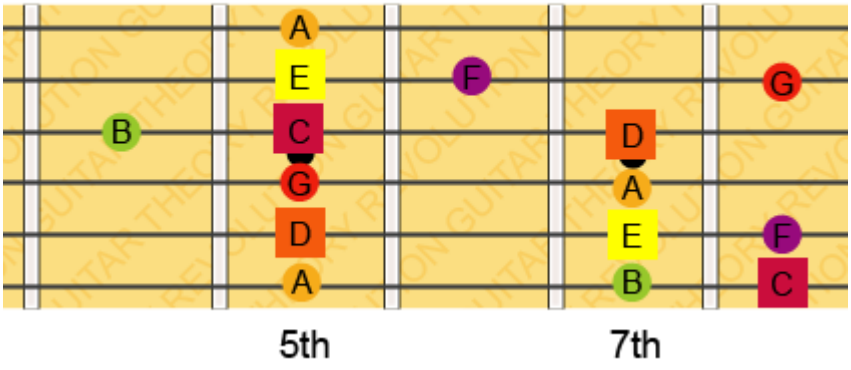
Although I'm hesitant to label music in this way, most people tend to hear the Major scale as a happy sounding scale and the Minor scale as a sad sounding scale.

The Major scale and the Natural Minor scale are related in such a way that each Major scale has a relative Minor scale attached to it (and vice-versa). For example if you have a C Major scale; C, D, E, F, G, A, B you can find its relative Minor scale by starting at the 6th note (also known as playing the 6th mode of the Major scale) and using all the same notes.

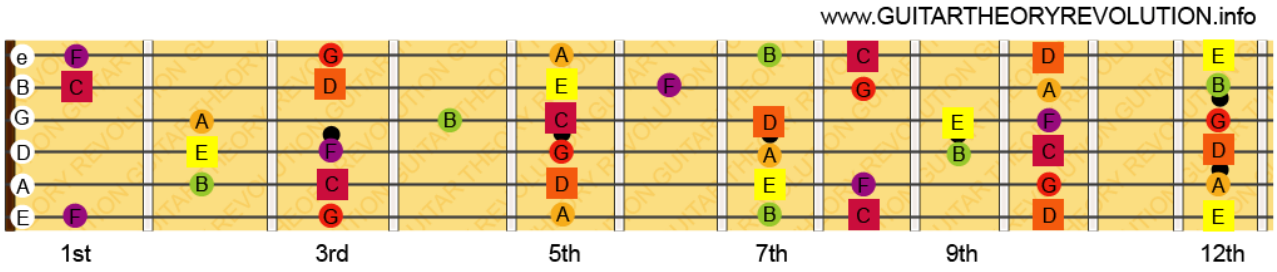
Doing this you'll get: A, B, C, D, E, F, G.

So the A Minor scale is the relative Minor scale of the C Major scale. (And the relative Major scale of the Natural Minor is found by starting at the 3rd note, the C.)

As with the Major scale there are plenty of diagrams online showing you how to play this scale so I'll just show you one pattern.



And here is an image of all the notes of the A Minor scale across the first 12 frets, but of course it is the same diagram as the C Major scale.



Remember how I said that music essentially boils down to relationships? You may be playing the same notes as the C Major scale but since the intervals are different between each note and the root note, in this case the A, the overall sound will be different.

When you are improvising you can mix the two scales together by putting more emphasis on either root note and important intervals for that scale such as the 0-3 for the Minor and 0-4 for the major scale.

Playing the same notes but starting from different root notes is also how you play the different modes of a scale. Modes will be covered in a later chapter.

3.3 Exercises

Do these exercises for both the Major scale and the Natural Minor scale.

Exercise 1: Play the scales horizontally along one string

Choose a starting position, any will do, and move along the string playing each note in succession following the Major or Minor scale formula. Do this until you know the formula by heart. To train your ear sing the note names and name the intervals as you go along.

A good order practice scales in is as follows: B, E, A, D, G, C, F, Bb, Eb, Ab, G. (B Major scale, E Major scale, A Major scale etc.)

The reason for this will be explained in following chapters, for now just know that it's a very musical way of practising scales which will train your ear and knowledge of how music works.

Exercise 2: Play the scale as shown in the diagrams

Use the scale diagrams to come up with Major and Minor scale patterns to practice. An online search for 'Major scale patterns' will reveal countless patterns for you to practice. Remember to sing or hum along to train you ear and to be conscious of the intervals in the scale.

Exercise 3: Improvise using the Major and Minor scales

Now it's time to use the scale for real. Find a simple song that uses Major chords and start playing the scale over it in the correct key. A simple way to find out what key a song is in is by looking at what the first chord of the song is. It doesn't apply to all music, for example certain jazz tunes, but is true for most pop and rock music. The very last chord of a song will also often indicate what key a song is in.

Some songs in the key of G that are good to practice with are:

Ring of Fire by Johnny Cash

What I Got by Sublime

Sweet Home Alabama by Lynerd Skynerd

Knocking on Heavens Door, Guns 'N' Roses Version (in Gb)

Play one of these songs in the background and start playing the Major scale in the key of G. Use the first Major scale pattern I gave you earlier and shift it down to the 3rd fret (the G on the low E / 1st string).

To practice the Minor scale find a simple song that starts with a Minor chord and start playing the scale over it in the correct key. A good song to practice over is *Otherside* by the Red Hot Chili Peppers which is in the key of A Minor.

The chord progression for the song is Am – C – F – G.

Finally try playing the relative Minor scale over a song that is in a Major key. For example, improvising with the A Minor scale over a song that starts with the C Major chord. Or improvise with a Major scale over a Minor key, for example the C Major scale over a song in A Minor.

3.4 Chapter summary

- The Major scale: 0 – 2 – 4 – 5 – 7 – 9 – 11 – 12
- The Natural Minor scale: 0 – 2 – 3 – 5 – 7 - 8 – 10 – 12
- You can find the relative Minor scale of a Major scale by playing the same notes but starting from the 6th note. You can find the relative Major scale of the Minor scale by starting from the 3rd note.
- An easy way to determine the key that a song is in is by looking at the first or last chord.

Practice

- Learn the fret formulas for both the Major and Minor scale.
- Practice the scale pattern in as many ways as you can think of.
- Practice them in all 12 keys, while singing or humming along.
- Improvise over simple songs using the two scales.

Chapter 4: The CAGED Chord Pattern

In This Chapter

- Major Triads
- CAGED Chord Patterns
- The five chord shapes

4.1 Major Triads

The next step in creating music after discussing intervals and scales is chords. A chord is a set of notes from a scale played together. When a chord only has three notes it is technically called a Triad. In this chapter we will be looking at **Major Triads**. The first, third and fifth note of the Major scale. This gives us a formula of: **0 – 4 – 7**. The Major Triad is the basis for the CAGED Chord pattern.

4.2 What is the CAGED Chord Pattern?

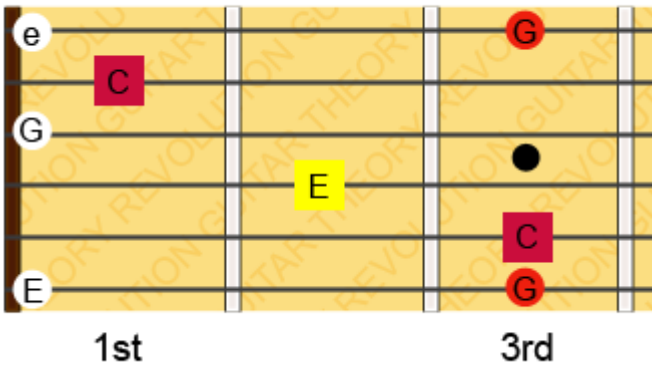
The CAGED chord pattern is a teaching aid that has become increasingly popular over the past few years. Not only is the CAGED chord pattern great for learning to play chords all over the neck, it also helps you to memorise all the note names and helps you easily visualise the Major and Minor Pentatonic scales on the fretboard.

The name of the CAGED chord pattern describes what it is; five chord shapes based on their respective open chord positions that appear in a specific order which allows you to play a chord in 10 different places on the guitar neck (depending on how long your guitar neck is). That might sound a little confusing but you'll get the hang of it quickly when you see the diagrams.

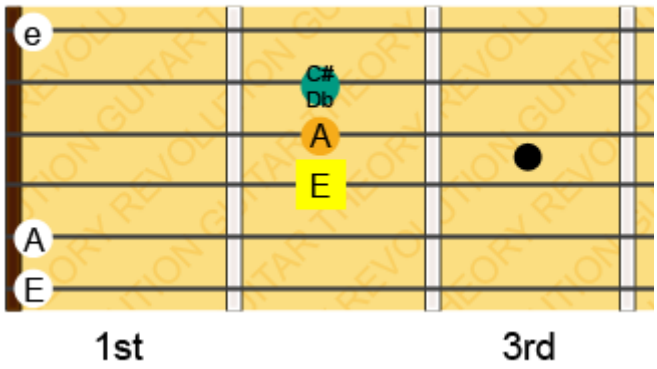
4.3 The five chord shapes

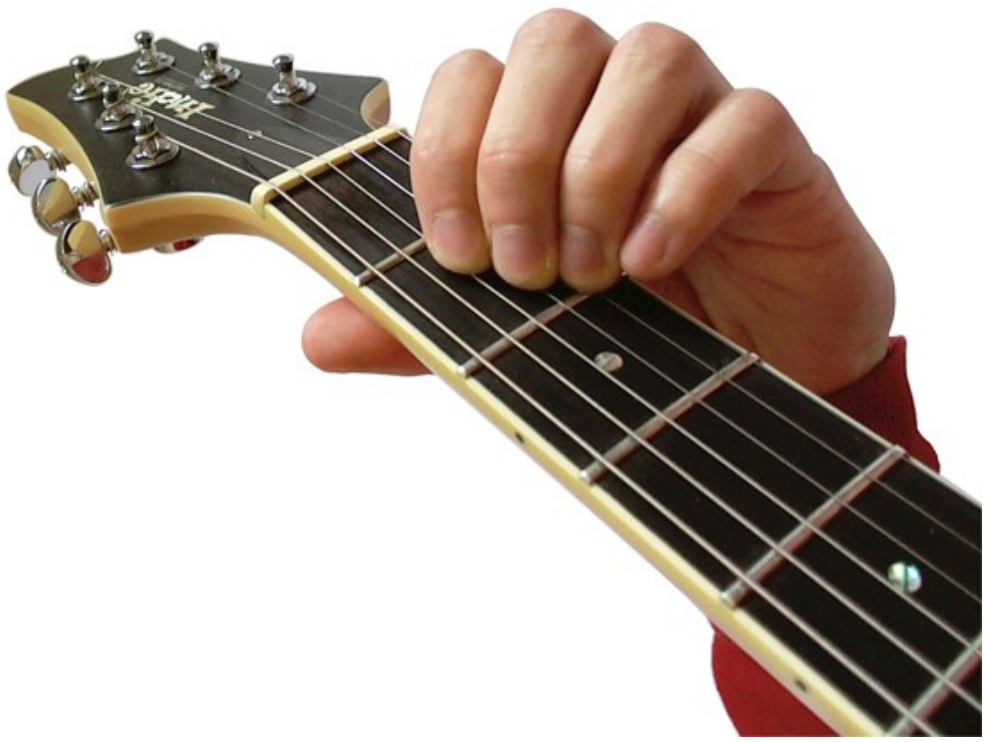
The five chord shapes used in this system are based on chords in the open position (first three frets, named because they include strings that are not fretted).

C-Shape (Based on the C Major chord in the open position).

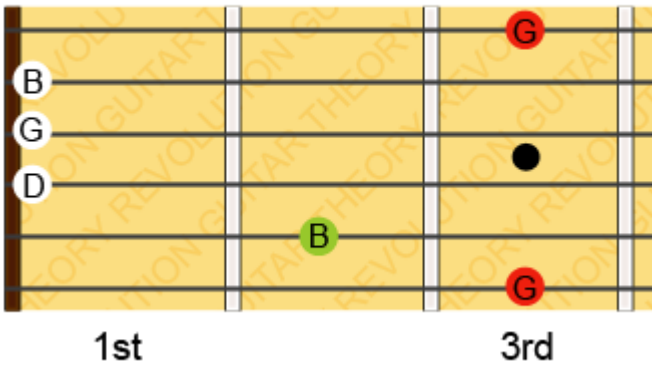


A-Shape (Based on the A Major chord in the open position).

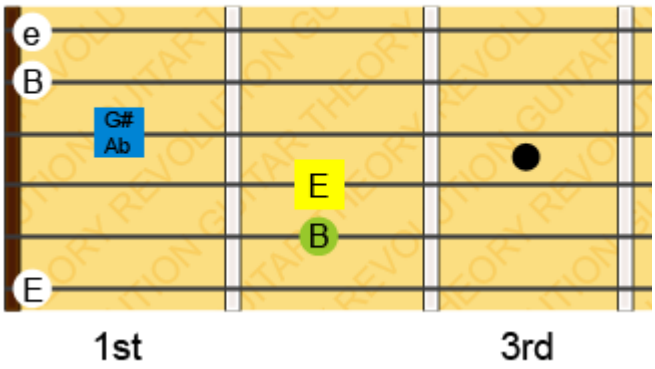




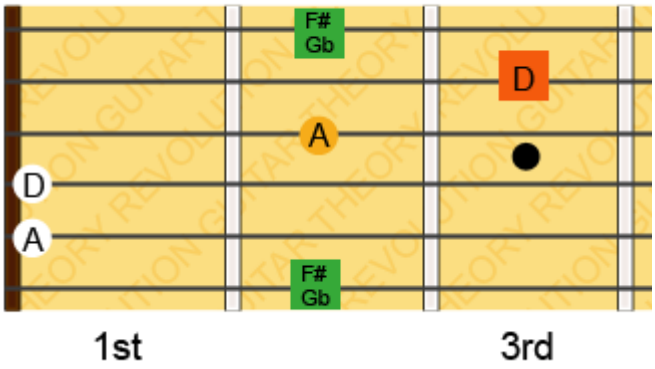
G-Shape (Based on the G Major chord in the open position).



E-Shape (Based on the E Major chord in the open position).

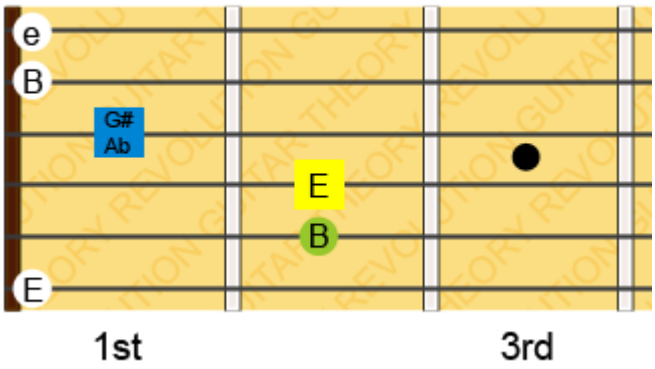


D-Shape (Based on the D Major chord in the open position).

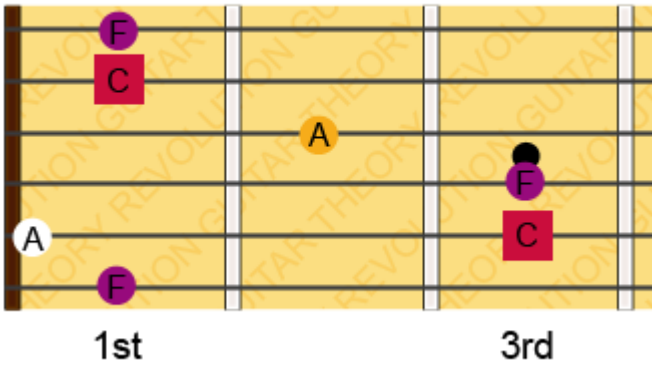


These are easy to remember because you can pronounce them as the word 'caged'. Notice how I refer to them as chord shapes rather than chords. The trick to this system is that the guitar is an instrument on which you can move chord shapes around on the neck in order to play different chords. Look at the examples below to get a feel for this.

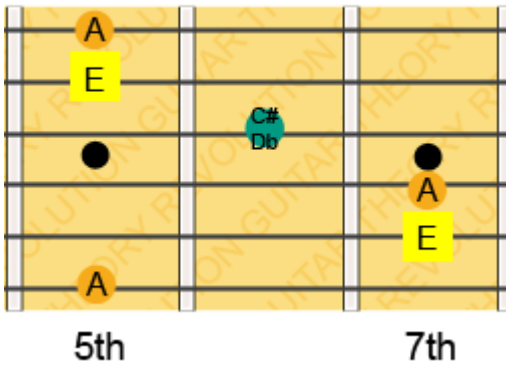
Here is an E Major chord.



Now imagine sliding that shape up 1 fret, instead of letting the open strings ring you place your 1st finger down across the strings creating the F Major chord. When you place your finger across all the strings like this you are forming a bar-chord which simulates the nut of the guitar at the end of the fretboard closest to the head of the guitar. Keep this in mind when you look at the chord shapes as they appear along the fretboard.



Now slide the shape even further to the 5th fret and it becomes an A Major chord.



In fact you can play this exact same chord shape all along the guitar neck to get different Major chords. To know which Major chord you are playing you only need to know which note on the 1st string you are fretting.

The above shape is referred to as the E-shape in the CAGED chord pattern. In the same way you can slide the shape of the C, A, G and D chords up the neck in order to get new major chords.

Just to make sure you fully understand, in the open position (first 3 frets of the fretboard) the Major chord name is the same as the chord shape. So the C shape in the open position is a C Major chord, the A shape in the open position is an A Major chord. But when you move the C-shape, A-shape etc. to another place on the guitar neck it will become a different Major chord.

4.4 The five CAGED shapes along the fretboard

Below are images of the five shapes as they slide up the fretboard. The index finger is placing a bar across all the strings so the other fingers can hold the rest of the triad / chord.

C Shape

A Shape

G Shape

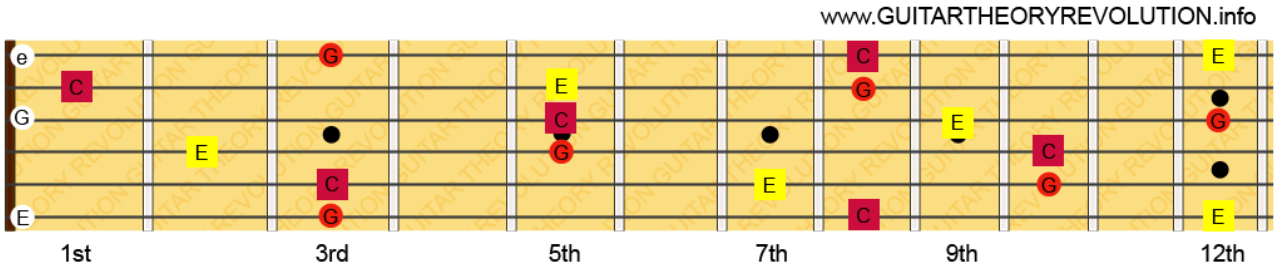
E Shape

D Shape

4.5 Visualising the CAGED chord shapes

Lets take a look at what the chord shapes look like on the guitar neck. In this example we will look at all the C Major chords between the 1st and 12th fret. Remember the neck repeats after the 12th fret an octave higher so all the patterns are the same and the notes follow the universal note pattern as described in Chapter 1.

The C Major chord is made from the notes C, E and G (0 – 4 – 7). You can see the chord appear in the open position at the first 3 frets. You'll also notice that there are two G's at the 3rd fret that most people don't play in this position..



In order to find the next C Major chord on the neck we find the next letter in the word CAGED. It's A, which means the next C Major chord will have the A-shape. Look at the image again and you'll see the A-shape appear at the 5th fret. If you wanted to you could just play those 3 notes to get a C Major chord. But in most cases people will hold those notes with their 2nd, 3rd and 4th fingers and place their 1st finger across all the strings in order to fret the notes on the 1st, 2nd and 6th strings at the 3rd fret.

This is an A-shape bar-chord and may be uncomfortable for beginners so take it slowly and stop if your hands or wrists become painful. Bar-chords will become more comfortable with just a few minutes practice a day.

The next shape to appear is the G-shape at the 7th and 8th frets. In order to play this chord you have to either fret the notes at the 5th fret or mute the middle strings. This shape is not used very often since it is quite hard to play. The next shape is the E-shape between the 8th and 11th fret.

Finally there is the D-shape on the 12th and 13th. Remember that the 13th fret is the same as the 1st, the 14th as the 2nd etc. So the other half of the D-shape can in this instance be found at the 1st fret as well

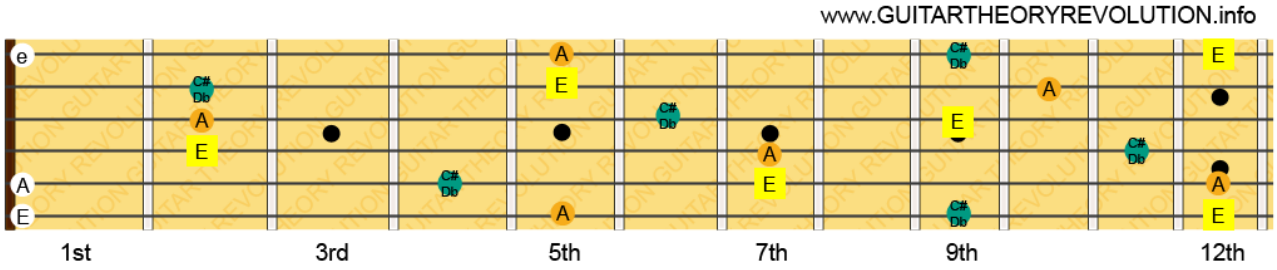
The order of the chord-shapes is always the same CAGEDCAGEDCAGED etc. which helps you easily find out which chord-shape is further up or down from the one you are using at the moment.

The order of shapes for the 5 chords we've covered so far is as follows, starting from the open position at the 1st to the 3rd fret.

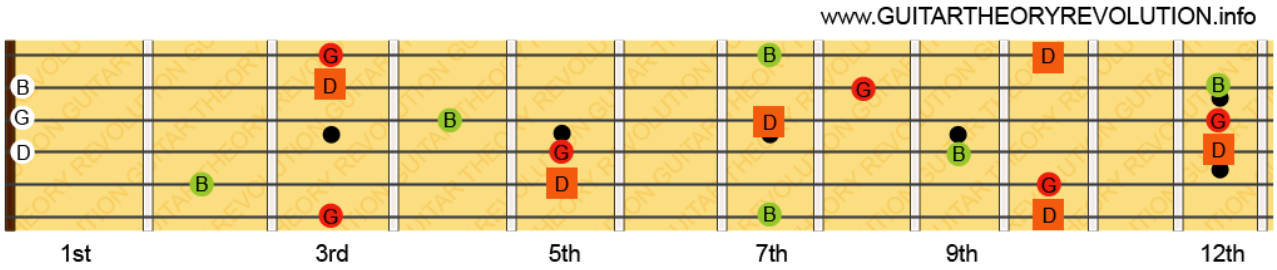
CAGED**C**AGED etc.
AGEDC**A**GEDC etc.
GEDCA**G**EDCA etc.
EDCAG**E**DCAG etc.
DCAGE**D**CAGE etc.

Below are the diagrams for the A Major, G Major, E Major and D Major Triads. Note how all the chord-shapes link into each other to form a continuous pattern. This will later help you learn the Pentatonic scales and is quite handy for the Major and Minor scales as well. As you can tell the best way to learn music theory for the guitar is by learning patterns in a particular order because they all build on each other. The Universal Note Pattern from Chapter 1 is right here as well. It's just that we choose to look at the pattern for three notes (a Major Triad) at the same time.

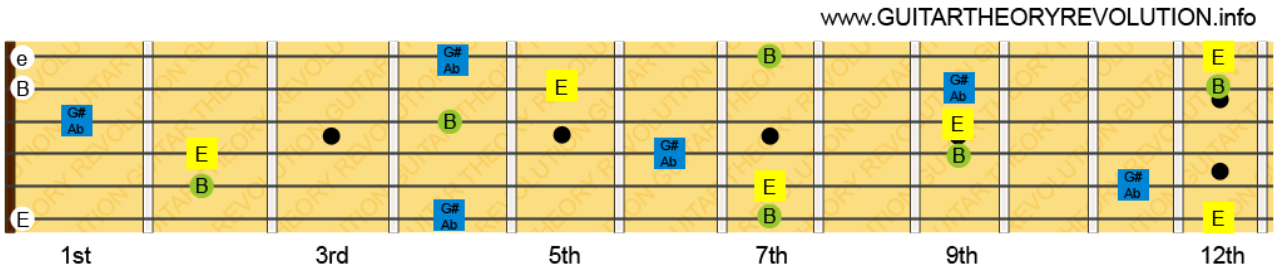
A Major Triads



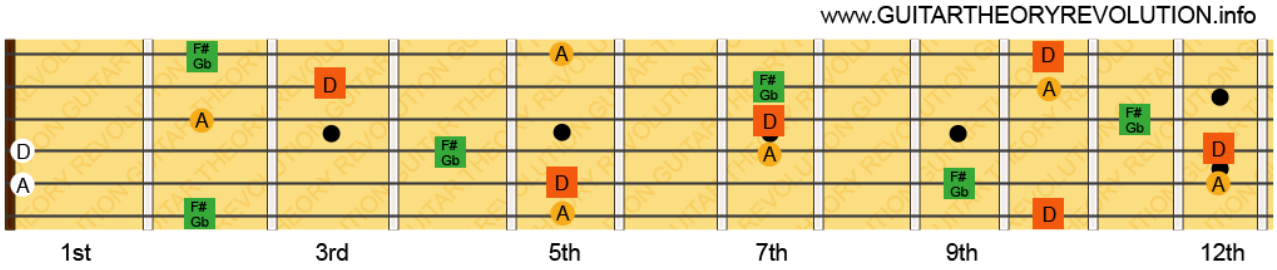
G Major Triads



E Major Triads



D Major Triads

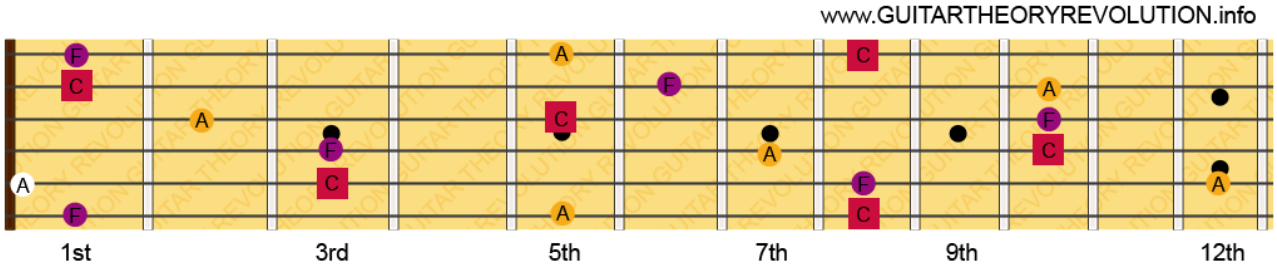


You don't always have to play all 6 strings and can choose shapes that are easiest for you to hold. This gives you a lot of flexibility in your playing.

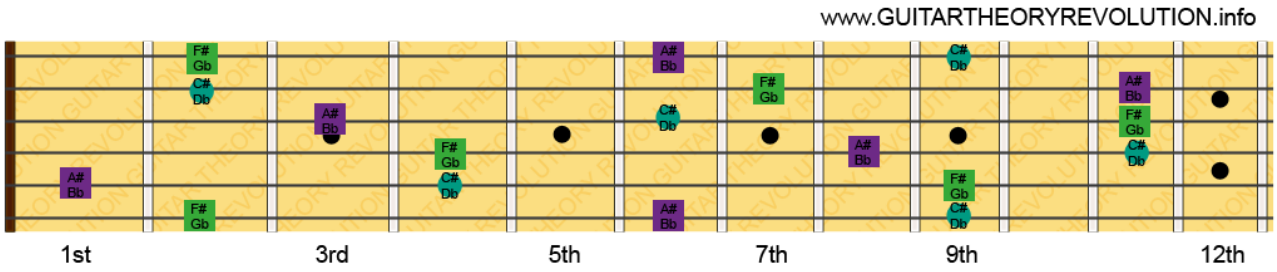
4.6 Other Major chord shapes and Triads

You should now have a good idea of what the interlinking CAGED chord shapes look like. What follows are diagrams for all the other Major Triads. It's good to practice finding all the CAGED chord shapes on the fretboard. Doing this will help you a lot when learning scales.

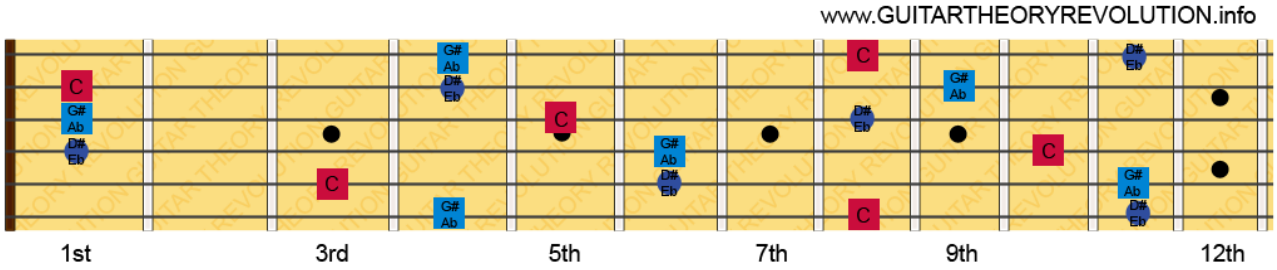
F Major Triads



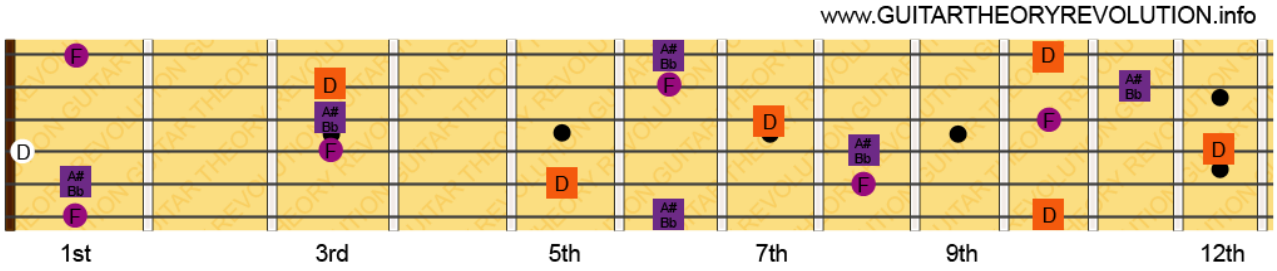
F# / Gb Major Triads



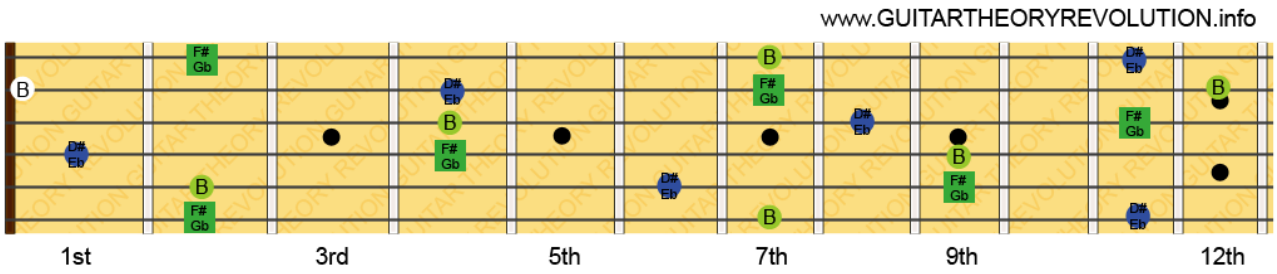
G# / Ab Major Triads



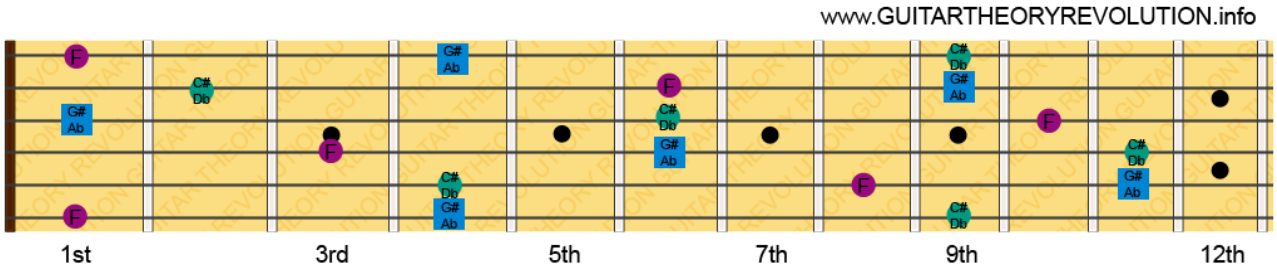
A# / Bb Major Triads



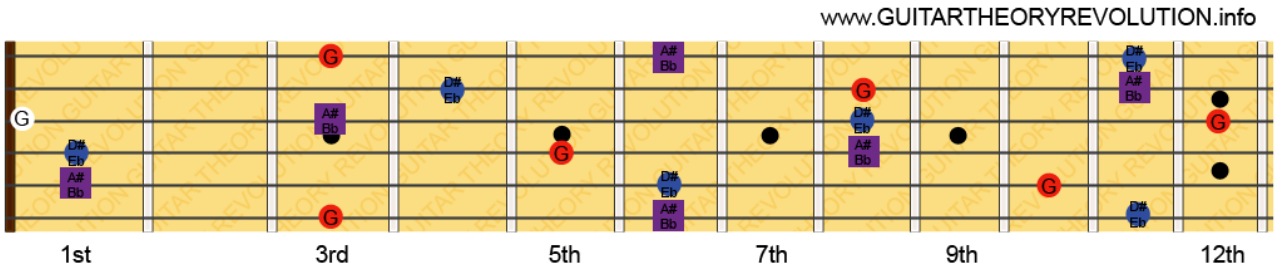
B Major Triads



C# / Db Major Triads



D# / Eb Major Triads



4.7 Exercises

Exercise 1: Learn the CAGED Pattern chords

Learn the five different Major Triad shapes and practice them for all 12 keys (C, C#, D, D# etc.)

Exercise 2: Play the chords in a spiral up and down the neck

Practice the chords in the following order: E Major (Open), A Major (Open), D Major (Open), G Major (Open), C Major (Open), slide up one fret, F Major (E-shape with a bar on the 1st fret), A# Major (A-shape with a bar on the 1st fret), D# Major (D-shape with a bar on the 1st fret) etc.

So the chords shapes occur in the order, E-shape, A-shape, D-shape, G-shape, C-shape, slide up one fret for the next E-shape, A-shape, D-shape, G-shape, C-shape, again slide up one fret for the next E-shape etc.

Doing this you'll spiral up towards the neck. Once you've reached the end of your guitar neck you can try it in reverse. C-shape, G-shape, D-shape, A-shape, E-shape slide down one fret for the next C-shape etc. As you go along pay attention which Major Triad you are playing. Once you've read the chapter on the Circle of 4ths and 5ths come back to this lesson and you'll understand the significance of this pattern.

4.8 Chapter summary

- The CAGED chord pattern consists of five chord shapes based on the open position chords: C, A, G, E and D.
- The CAGED chord pattern shows you how to play chords all over the neck.
- The CAGED chord pattern will help you learn the Pentatonic scales.

Practice

- Practice using the CAGED pattern to play chords all over the neck.
- Practice the spiral of chords up and down the neck.

Chapter 5: The Circle of 4ths and 5ths

In This Chapter

- The Circle of 4ths and 5ths
- The BEAD-GCF Pattern
- Major scales and key signatures
- Harmonising the scale

5.1 What is the Circle of 4ths and 5ths?

The Circle of 4ths and 5ths (sometimes just known as the circle of 5ths or more correctly the cycle of 5ths) is a graphical representation of the relationship between all 12 notes of the chromatic scale (all the notes in Western music).

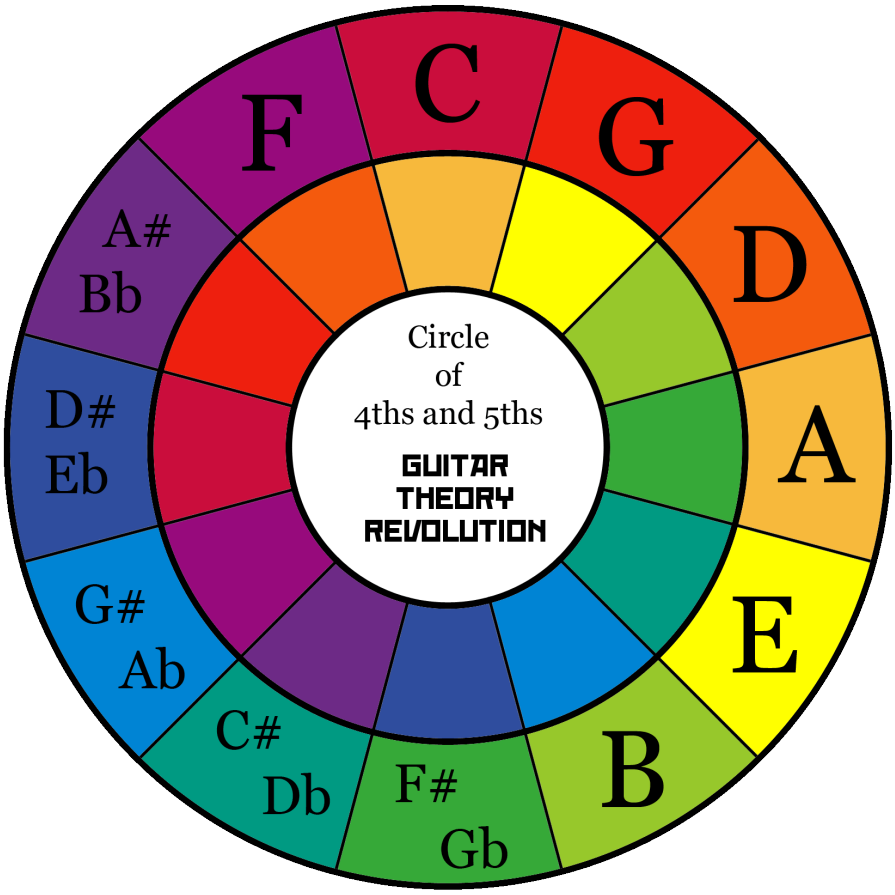
As has been shown before the most important thing in music is the relationships between notes: the intervals. The best sounding (most consonant) interval is the octave (fret distance of 0 – 12), which is simply the same note at double the frequency. The next best sounding interval (next most consonant interval) is the Perfect 5^{th} (fret distance 0 – 7). This interval is the most important in Western music as you can use it to find all 12 notes in the chromatic scale.

You can check this for yourself, pick any note, lets start with C and let's find the note that is a Perfect 5^{th} (fret distance 0 -7) away from the C. You'll find this gives you a G. The note seven frets along from the G is a D etc. You can continue like that finding each note and eventually you will end up with C again.

If you search for each note in the opposite direction you need to move in Perfect 4ths (fret distance 0 -5). From C you'll reach F, from F you'll reach A#/Bb etc. Again you will end up back at C again. (A Perfect 4^{th} is a 0 – 5 fret distance while a Perfect 5^{th} is a 0 – 7 fret distance; 5 + 7 = 12.)

This is how you build up the circle of 4ths and 5ths as seen in the image on the next page.

Circle of 4ths and 5ths



5.2 The BEAD-GCF Pattern

As mentioned before the Five Fret Pattern occurs because of the particular way in which the guitar strings are tuned in Perfect 4ths; 5 frets apart. The great thing about this is that it makes the guitar reflect fundamental patterns in western music.

If you take any starting note and you keep moving up 5 frets along an imaginary infinitely long guitar string, you will eventually cycle through all the different notes in the order of the circle of 4ths and 5ths (a real guitar string isn't long enough but the same thing happens when you move vertically across the strings).

For example, start with the B note on the lowest string, move 5 frets to the right and you'll find an E (or follow the Five Fret Pattern and move up to the next string). When you move along another 5 frets (or the next string using the Five Fret Pattern) you'll reach the A note. If you continue following this pattern you'll encounter all the notes in the following order:

B – E – A – D – G – C – F – A# / Bb – D# / Eb – G# / Ab – C# / Db – F# / Gb and then the pattern starts at the beginning again: **B – E – A – D – G – C – F etc.** It's a circular pattern.

To help you remember this pattern more easily you can simplify it to:

B – E – A – D – G – C – F – Bb – Eb – Ab – Db – Gb

Pronounce the first four notes as the word **BEAD** and remember the next three with the mnemonic **G**et **C**ool **F**riends. Finally repeat the first five note names but as flats **Bb – Eb – Ab – Db – Gb**.

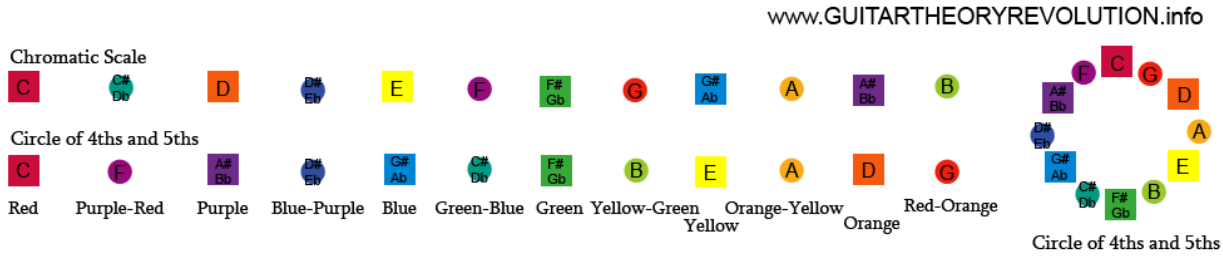
Another way to remember the circle in both directions is with the acronym **B**attle **E**nds **A**nd **D**own **G**oes **C**harles' **F**ather plus **Bb**, **Eb**, **Ab**, **Db**, **Gb**, and **F**ather **C**harles **G**oes **D**own **A**nd **E**nds **B**attle.

Now look at the notes on the fretboard again and see how this pattern appears across the strings. Find the B on the lowest string, then the E on the next string, the A etc and remember that this pattern follow the Five Fret Pattern so it shifts over to the right for the two highest strings (you can ignore either the top or bottom string because they are the same).

Pick another note on the lowest string, for example the A at the 5th fret. The next notes are D – G – C, then remember to follow the Five Fret Pattern by moving a fret to the right to find F and Bb. Compare the order of the notes with the image of the Circle of 4ths and 5ths. You should be able to see how the circle is spiralling along the fretboard from left to right.

So one of the most important relationships in Western music is embedded into the way the guitar is tuned in standard tuning.

Mike George from the Color Music Company had the great insight to colour code the notes in the order of the circle of 4ths and 5ths. This really helps in understanding the relationship between the notes. The colours of the rainbow help you see how the circle of 4ths and 5ths spirals along the fretboard following the Five Fret Pattern from left to right.



Check out Mike's site for resources that will help you learn to read standard music notation in a new an intuitive way: http://mycolormusic.com/

5.3 Major Scales and key signatures

In the previous sections of this chapter we looked at the circle of 4ths and 5ths as representing the relationships between the different notes. But you can also look at it as representing the relationship between the 12 Major scales and the 12 musical key signatures.

First we can use the circle to determine the which notes are in each Major scale. We'll use the C Major scale to figure out the other scales because it is easy to remember: **C**, **D**, **E**, **F**, **G**, **A**, **B**.

To figure out which notes are in the other 12 Major scales we will use something called a tetrachord, which in this case is the first four notes of each Major scale.

Tetrachords for each key

C Major TC: C, D, E, F

G Major TC: G, A, B, C

D Major TC: D, E, F#, G

A Major TC: A, B, C#, D

E Major TC: E, F#, G#, A

B Major TC: B, C#, D#, E

F# / Gb Major TC: F#, G#, A#, B

F# / Gb Major TC: Gb, Ab, Bb, B

Db Major TC: Db, Eb, F, Gb

Ab Major TC: Ab, Bb, C, Db

Eb Major, Eb, F, G, Ab

Bb Major TC: Bb, C, D, Eb

F Major TC: F, G, A, Bb

C Major TC: C, D, E, F

So you can see the C Major tetrachord is the first four notes of the C Major scale (C, D, E, F), note also that I've placed the tetrachords in order of the circle of 4ths 5ths, clockwise around the circle, C, G, D etc.

Next notice that the G Major tetrachord is the second half of the C Major Scale. So the C Major scale is made up out of the C Major tetrachord and the G Major tetrachord. The G Major scale is made up out of the G Major tetrachord and the D Major tetrachord. And the D Major scale is made up out of the D Major tetrachord and the A Major tetrachord, this continues for each scale until you've gone all around the circle and arrive back at the C Major scale.

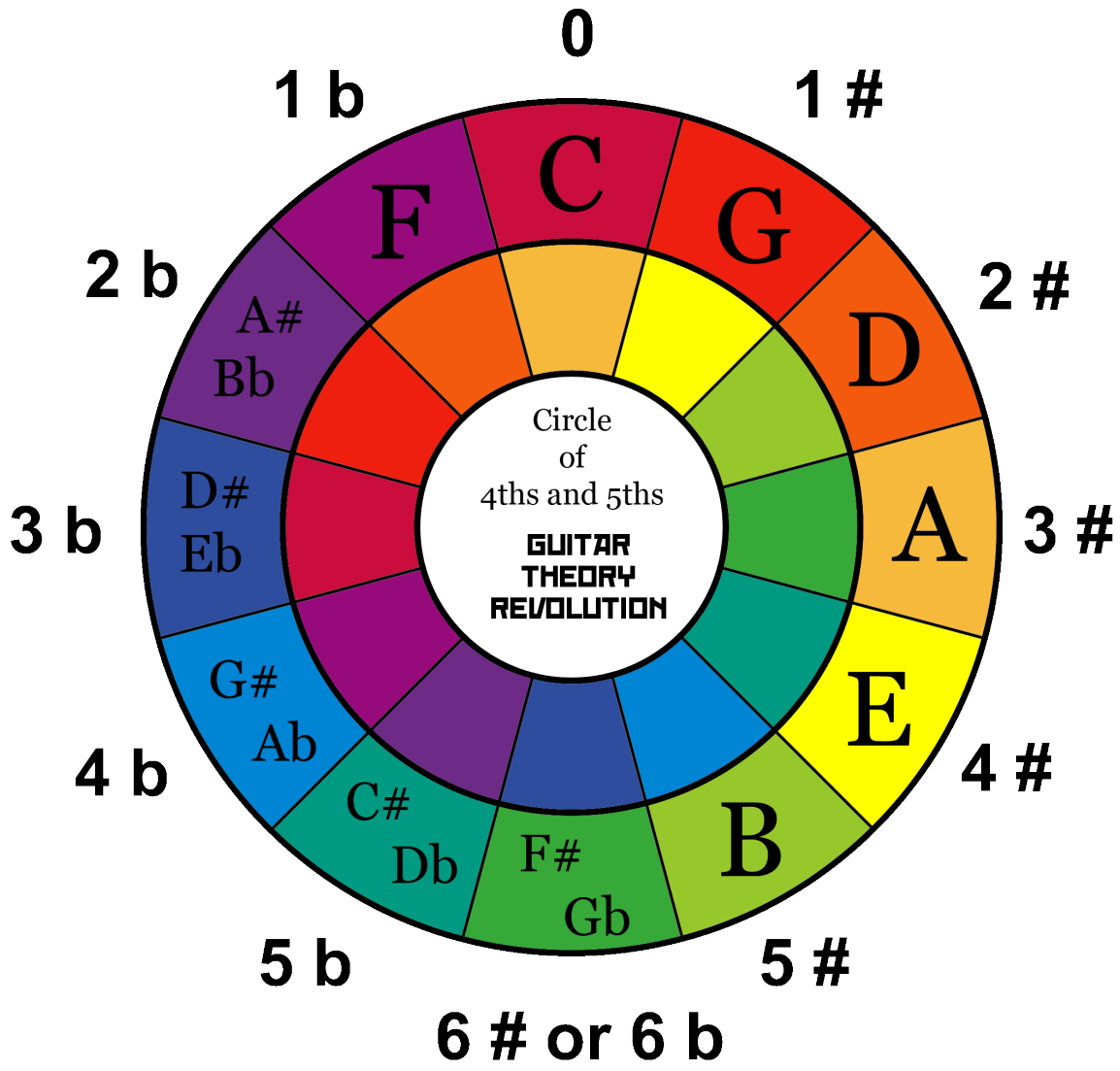
To actually know which notes are in each tetrachord you can use the following trick. Every 7th note of previous scale is raised by one fret. Start with the C Major scale which is C, D, E, F, G, A, B. We can see from the circle of 4ths and 5ths that the next Major scale is the G Major scale. So we continue naming the notes in order G, A, B, C, D, E, F#. Notice how the the 7th note is raised by one fret from an F to an F#.

The next scale is the D Major scale. Keep naming the notes: D, E, F#, G, A, B, C#. Now the 7th note is raised from C to C#. It continues in this way around the circle.

Not only does this allow you to figure out what the Major scale is for each key but it also shows how many sharps and flats are in each key.

Luckily it's very easy to remember because when you look at the tetrachords you'll see that the key and scale of C Major has 0 sharps or flats, G has one #, D has two #'s etc. all away around the circle. The convention is to start naming them b's from bottom of the circle back to the top.

Sharps and flats for each key



5.4 Harmonising the scale

As mentioned before the circle of 4ths and 5ths doesn't just show the relationship between each note but also between the Triads (also commonly referred to as chords) and the musical keys.

In order to find out which notes make up each Triad in the circle we will harmonise the scale. This topic falls under something called diatonic harmony which means that we are going to play notes together but will only use notes from within one key and scale (in our example C Major).

Harmonising the C Major scale

Harmonising a scale can be done easily in the following way. To start simply writer down the scale. The C Major scale is: C, D, E, F, G, A, B, C (octave above the root) Next note down the fret formula for this scale, starting from 0 as always we get: 0 – 2 – 4 – 5 – 7 – 9 – 11 – 12.

I've written this information in the table below and added a third row of Roman numerals. These will be covered in more depth in the next chapter but for now all you have to know that each chord in a key is assigned a Roman numeral from 1 to 7. The triad an octave above the root is also labelled with 'I'.

Fret Distance	0	2	4	5	7	9	11	12
Major Scale	C	D	E	F	G	A	B	C
Roman Numerals	I	ii	iii	IV	V	vi	vii^{o}	I

Now we can start harmonising the scale. First of all we can write down the Major scale again because we know that each chord starts with those notes of the scale.

Next there is a simple trick to help you find out which notes are the other two in each Triad. Since this is the key of C Major and we know that a Major Triad is 0 – 4 – 7 we now know that the first Triad is a C Major Triad made out of C, E and G. So we can note the E and G underneath the C.

We can now simply follow the order of the scale from left to right to fill out all the other notes. So the second row is E, F, G, A, B, C, D, E and the third is G, A, B, C, D, E, F, G.

Fret Distance	0	2	4	5	7	9	11	12
Major Scale	C	D	E	F	G	A	B	C
Roman Numerals	I	ii	iii	IV	V	vi	vii°	I
Notes of each Triad	C	D	E	F	G	A	B	C
	E	F	G	A	B	C	D	E
	G	A	B	C	D	E	F	G

Now we know which notes make up each Triad and once we know that we can figure out whether each chord is a Major, Minor or Diminished Triad.

We do this by looking at what the fret formula is for each Triad. The 1st,4th and 5th Triads each have the fret formula 0 – 4 – 7 (the first note of the Triad along the top is 0, then count how far away the other two notes are), which is a Major Triad so they are denoted with the capital Roman Numerals **I**, **IV** and **V**. The 2nd , 3rd and 6th Triad each have the formula 0 – 3 – 7 which means they are Minor Triads and are denoted with lower case numerals **ii**, **iii** and **vi**.

Finally there is one Triad that has the formula 0 – 3 – 6 which means it is a diminished Triad. We give that the **vii°** numeral. (Note: there are different kinds of diminished chords built on top of the diminished Triad. For simplicity's sake all diminished Triads and chords are denoted with the ° symbol).

It's a good exercise to harmonise each Major scale to work out how all the Triads in each key are built. But in the next chapter you'll be shown an easy way to figure out which Triads are in each key so you can concentrate on coming up with interesting chord progressions.

5.5 Exercises

Exercise 1: Practice drawing out the circle of 4ths and 5ths

Grab a piece of paper and draw out the circle of 4ths and 5ths. You can do them in order using the various mnemonics but you should also try writing down the note names in a random order.

Exercise 2: Memorise the the BEAD-GCF Pattern

Memorise the BEAD-GCF pattern and practice visualising it on the fretboard (you'll have to discard either the low E or high e string). It spirals along the fretboard and the colour code follows the colours of the rainbow.

5.6 Chapter summary

- The circle of 4ths and 5ths shows the relationship between the 12 notes and keys.
- The BEAD-GCF pattern can help you memorise the circle and can be visualised on the fretboard. The pattern can be visualised as a rainbow spiralling along the fretboard
- Tetrachords allow you to figure out the Major scale for each key.
- By harmonising the Major scale you can find out all the chords for each key.
- Each key has a different number of #'s and b's which the circle can help you memorise.
- The Roman Numeral system allows you to see the underlying relationships between chords in a key.

Practice

- Memorise the circle of 4ths and 5ths.
- Memorise the BEAD-GCF pattern.
- Practice the BEAD-GCF pattern on the fretboard.

Chapter 6: Triads and Chords

In This Chapter

- Minor Triads, Diminished Triads and chords, Augmented, 6th and 7th chords.

6.1 Overview

In this chapter you'll be shown how to play some of the more common chords that are used in pop, rocks and blues music. Major Triads have already been covered in an earlier chapter and in this one you will be shown **Minor Triads**, **Diminished** and **Augmented Triads and chords, 6th and 7th chords**. Note: Major and Minor Triads are often simply referred to as Major and Minor chords.

There are many different ways in which you can play these Triads and chords on the guitar so this chapter will be restricted to common moveable chord shapes. You can slide moveable chord shapes along the fretboard to get chords in different keys. You can determine the key of the chord by looking at what the root note of the chord is (the 0 point).

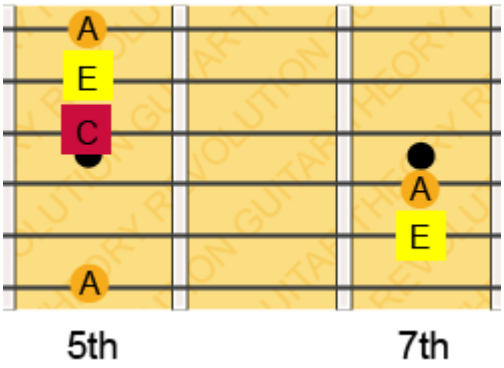
Once you've learned these chord shapes you can continue your education by learning different voicings of each chord. Either come up with your own, use one of the many cheap chord books or the countless chord diagrams available online.

Note: The photos showing how to hold the chords are taken from my perspective as I'm holding the guitar, looking at the fretboard.

6.2 Minor, Diminished Triads and Augmented Triads

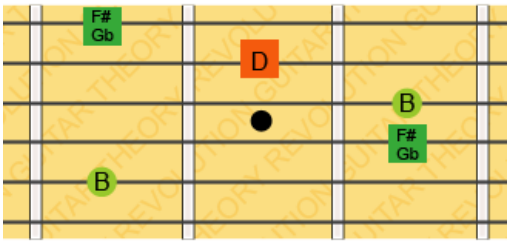
Minor Triad

Fret Formula: 0 – 3 – 7
Example: Am: A, C, E



Minor Triad with root note on the 2nd (A) string

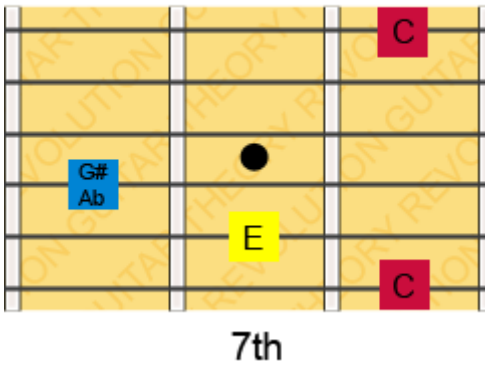
Fret Formula: 0 – 3 – 7
Example: Bm: B, D, F#/Gb



3rd

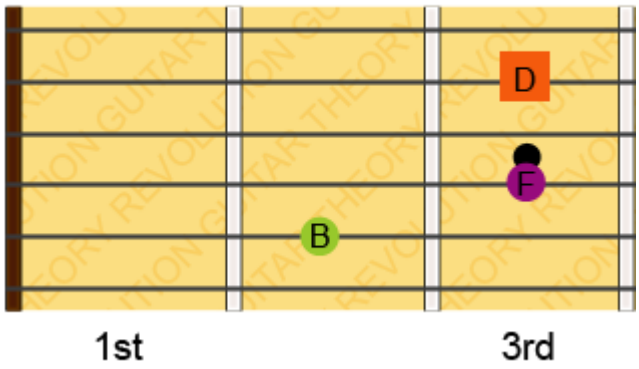
Augmented Triad

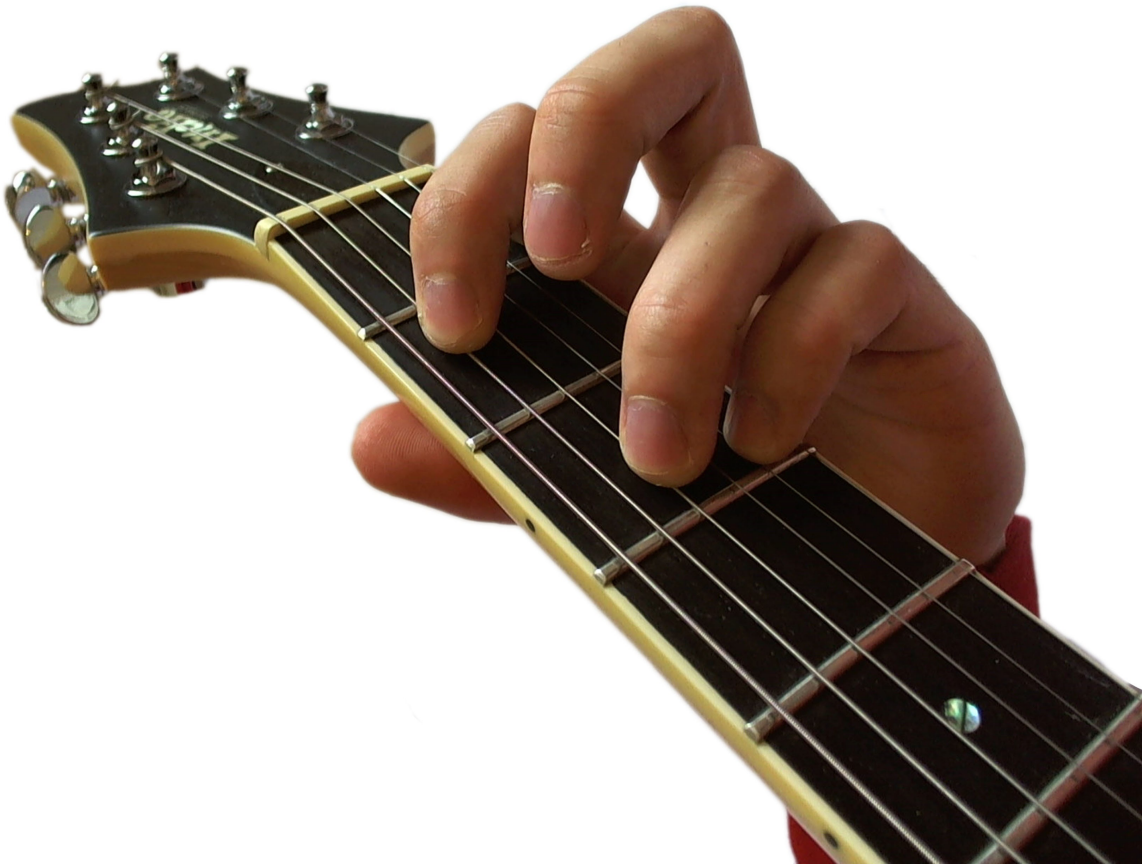
Fret Formula: 0 – 4 – 8
Example: C Augmented Triad: C, E, G#/Ab



Diminished Triad

Fret Formula: 0 – 3 – 6
Example: B Diminished Triad: B, D, F

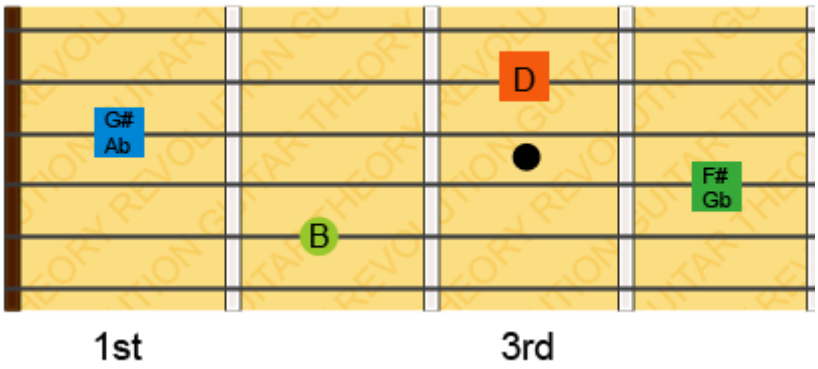




6.3 6th and 7th Chords

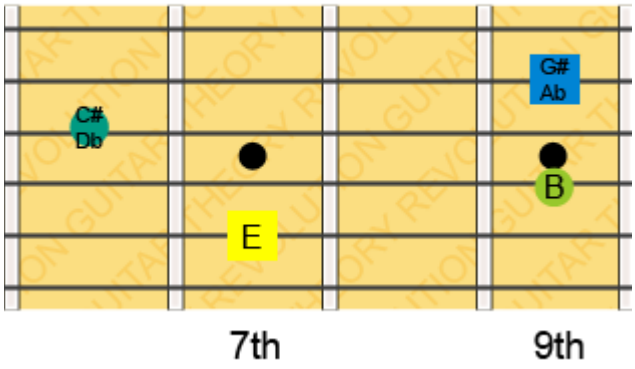
Minor 6th

Fret Formula: 0 – 3 – 7 - 9
Example: Bm6: B, D, F#/Gb,G#/Ab



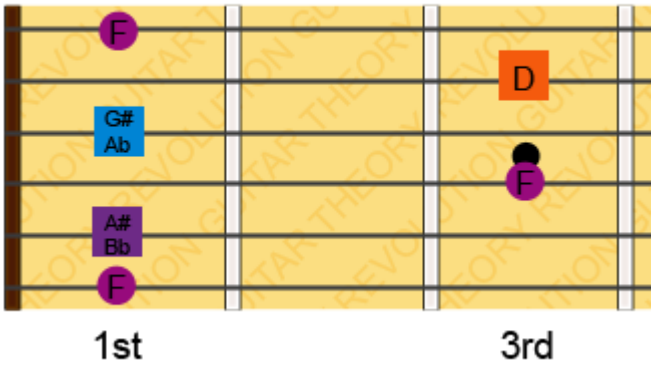
Major 6th

Fret Formula: 0 – 4 – 7 – 9
Example: E6: E, B, C#/Db, G#/Ab



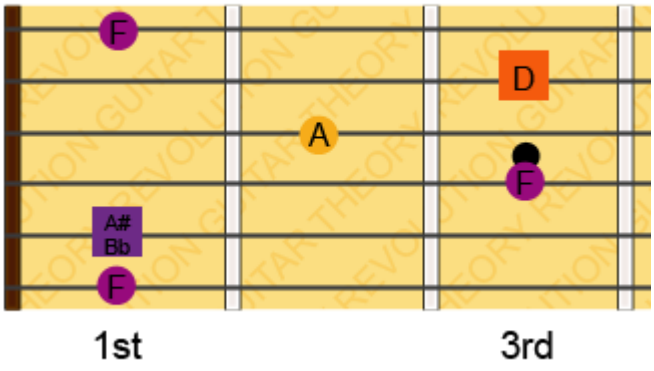
Dominant 7th

Fret Formula: 0 – 4 – 7 – 10
Example: Bb 7: Bb, G#/Ab, D, F



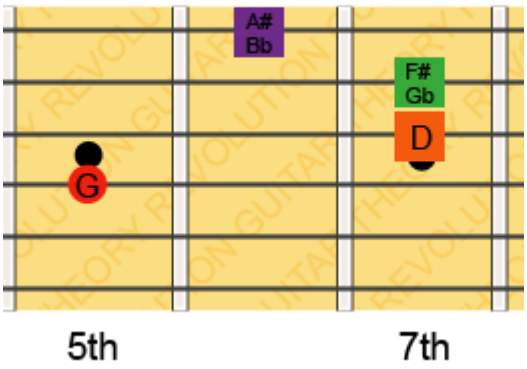
Major 7th

Fret Formula: 0 – 4 – 7 – 11
Example: Bb Major 7th: Bb, A, D, F



Minor with a Major 7th

Fret Formula: 0 – 3 – 7 – 11
Example: Gm (M7): G, A#/Bb, D, F#/Gb

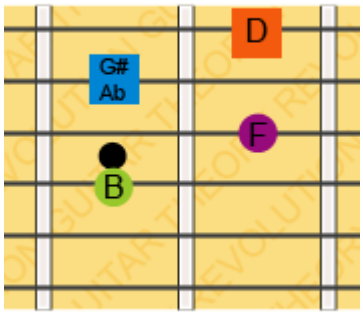


Minor 7th

Fret Formula: 0 – 3 – 7 – 10
Example: Bbm7: Bb, C#/Db, F, G#/Ab

Diminished 7th

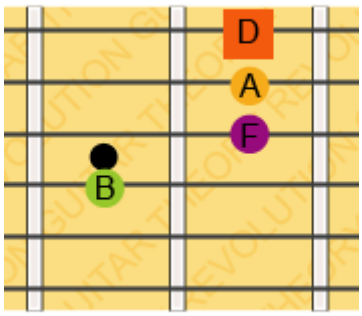
Fret Formula: 0 – 3 – 6 – 9
Example: B Dim 7: B, D, F, G#/Ab



Note: This chord can also be considered an alternate voicing of the D Dim7, F Dim7 and G# Dim7 chords. You could say there are only three Diminished 7th chords that cover all 12 keys (4 keys for each chord). Slide this shape up along the neck and you'll see how the same notes repeat every three frets that you go up. For example the same notes for the above example appear at the 3rd, 6th and 12th, 15th and 18th frets as well, just in a different configuration.

Minor 7th b5 or Half-Diminished 7th

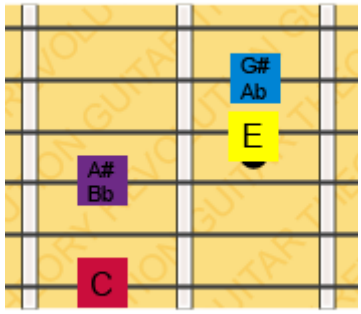
Fret Formula: 0 – 3 – 6 – 10
Example: B b5m7: B, D, F, A



9th

Augmented 7th

Fret Formula: 0 – 4 – 8 – 10
Example: C Augmented 7: C, E, G#, A#



6.4 Using and substituting chords

Note: The information in this section is best studied after reading through Chapter 7. However it is placed in this chapter for easier reference.

Substituting 7th Chords

You can try substituting 7th chords for Major and Minor Triads to spice up the sound of your chord progressions. Below you can see which 7th chords can be substituted for which Triads in both Major and Minor keys. The use of Roman numerals to describe chord progressions is explained in the next chapter.

Roman Numeral Major key	Triad	7th Chord
I	Major	Major 7th
ii	Minor	Minor 7th
iii	Minor	Minor 7th
IV	Major	Major 7th
V	Major	Dominant 7th
vi	Minor	Minor 7th
vii°	Diminished	Minor 7thb5 or Half-Diminished 7th

Roman Numeral Minor key	Triad	7th Chord
i	Minor	Minor 7th
II°	Diminished	Minor 7thb5 or Half-Diminished 7th
III	Major	Major 7th
iv	Minor	Minor 7th
v	Minor	Minor 7th
VI	Major	Major 7th
VII	Major	Dominant 7th

Using Augmented Triads and Chords

You will rarely encounter Augmented Triads and chords in pop or rock (although the Beatles sometimes used them). As a guitar player you will encounter them predominantly in Jazz and Blues.

They are usually used as transition chords for example between Major and Minor chords: C Major – C Augmented – A Minor. Beyond that it's a bit harder to give guidelines on how to use these chords and Triads in chord-progressions because their use depends a lot on the musical context that you want to play them in. You'll have to experiment with them and study more advances music theory once you've mastered everything in this book. A good place to start is by substituting Augmented chords for the III in a Major key chord progression and play III+ – IV or III+ – vi in your progression. (The + sign is a way to indicate that it is an Augmented chord).

In the following chapter you'll be shown how to harmonise scales to find the chords in a particular key. If you harmonise the Minor scales you'll find more ways to substitute Augmented chords for the III. In Harmonic Minor you could try, III+ - i or V - III+. In Melodic Minor you can try ii – III+, IV – III+ or #vi° – III+.

Again, don't worry if these Roman numerals don't make sense to you right now, you can come back later and read this section again.

6.5 Exercises

Practice the various chords until you have all the examples memorised. After that you can come back and use the Fret Formulas to see how many more variations you can come up with.

You'll be able to experiment more with using these chords when you learn about chord progressions in the next chapter.

6.6 Chapter summary

- Minor Triads, diminished Triad and chords.
- Augmented chords, 6th and 7th chords.
- Substituting 6th and 7th chords.

Practice

- Memorise the the different moveable chord shapes.
- Memorise the Fret Formulas for each chord shape.
- Memorise which chords can be substituted for each other.

Chapter 7: Chord Progressions

In This Chapter

- Roman Numerals
- Major and Minor key chord charts
- Common chord progressions
- How to write songs
- Chord functions, chord leading, cadences, modulation, substitution, turnarounds, and borrowed chords.

7.1 What is a chord progression?

A chord progressions is a set of 2 to 7 chords that are played one after each other and often repeated several times in a piece of music. Chord progressions are present in virtually every form of music: rock, pop, jazz, classical, blues etc. (Note: In this chapter I will refer to the Major, Minor and Diminished Triads as chords, as they are commonly known).

Chord progressions can be described in two ways. You can show exactly which chords to play, for example:

C Major – F Major – G Major

Or you can describe the above chord progression in a more fundamental way by describing them in terms of their relationship to the overall key. In this case the above progression is in the key of C and can be described as **I – IV – V** as shown in the chapter about the circle of 4ths and 5ths.

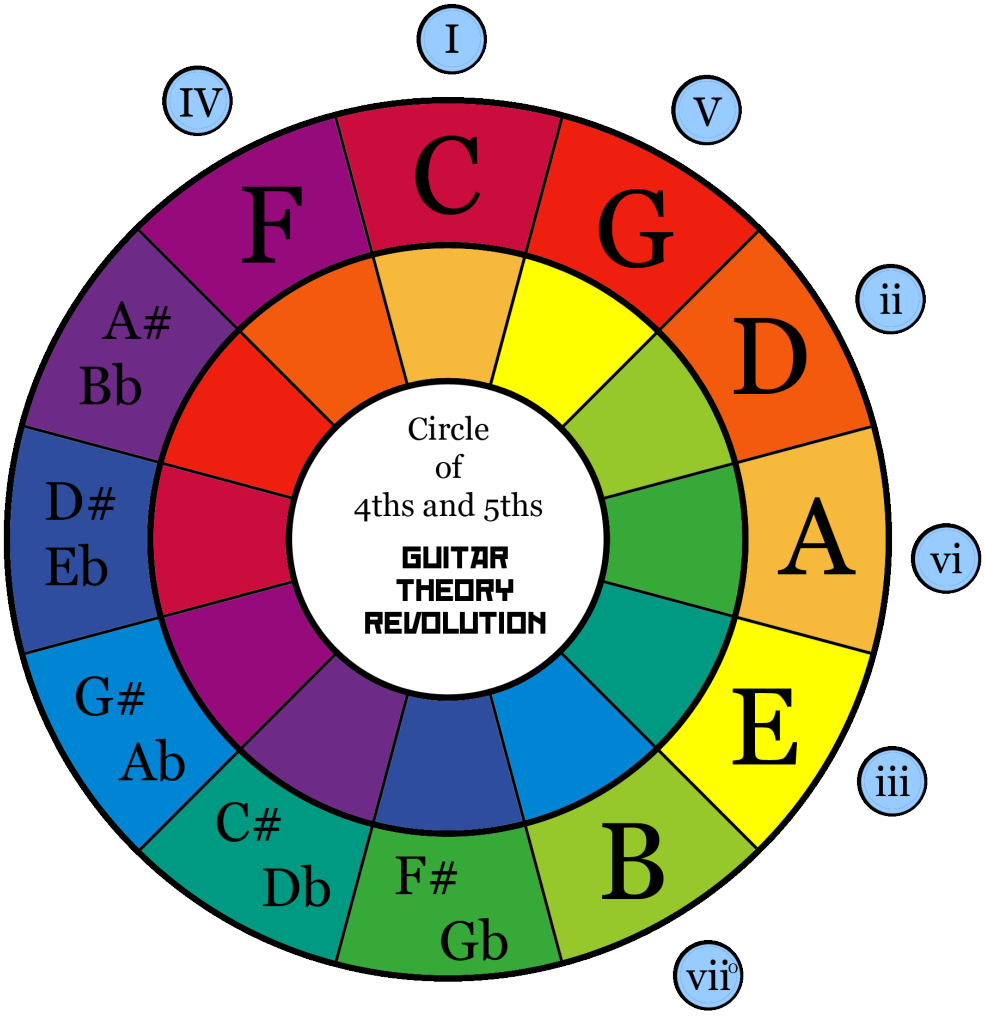
When you know how to describe chord progressions in this way it really helps your musical understanding. You can learn to recognise common chord progressions by ear which means you'll be able to figure out how to learn new songs just by listening to them. You'll be able to change the key of songs so that it better suits your voice and you'll be able to improve your song writing as well, not always by sticking to the rules but by knowing how and when to break them as well.

7.2 Roman Numerals

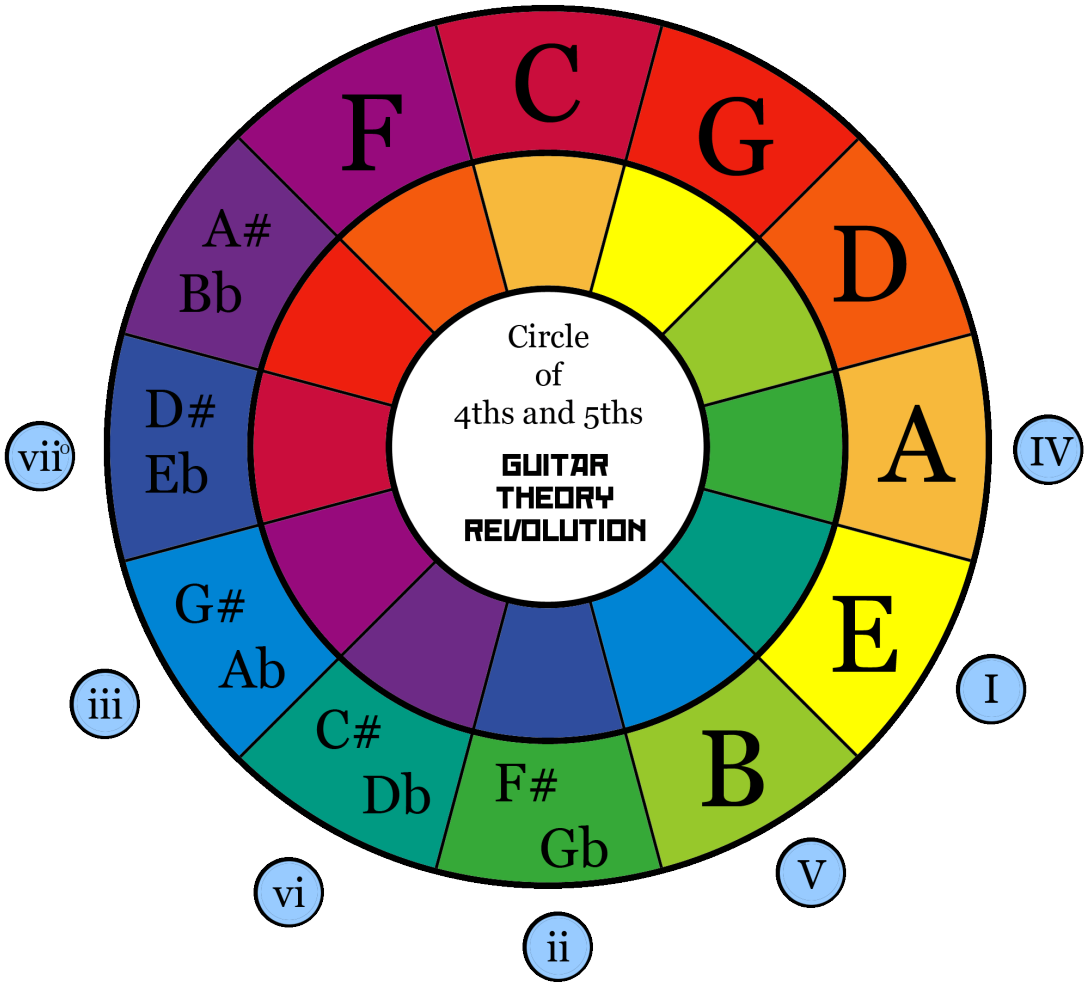
As you were shown in the previous chapter the chords in the Major key are named using Roman numerals as follows: **I – ii – iii – IV – V – vi – vii°**

Upper case numerals are Major chords, lower case are Minor chords while the chord with the ° is diminished. (Note: The ° is used for all different variations of Diminished Triads and chords in this book.)

You can use the circle of 4ths and 5ths to easily plot out the chords in a specific key. For example, say you want to figure out which chords are in the key of C Major. Place the **I** symbol over the key you want to work with then move two notes along to the right to find the **ii** (this gives you Dm), another two notes to find the **iii** (this give you Em). Now skip back to the note before the **I** to find the **IV** (F Major) and then continue back around the circle in the clockwise direction to find all the remaining chords.



Here is another example but in the key of E Major. As you can see the pattern is the same, it's just shifted around so that it has a different starting point.

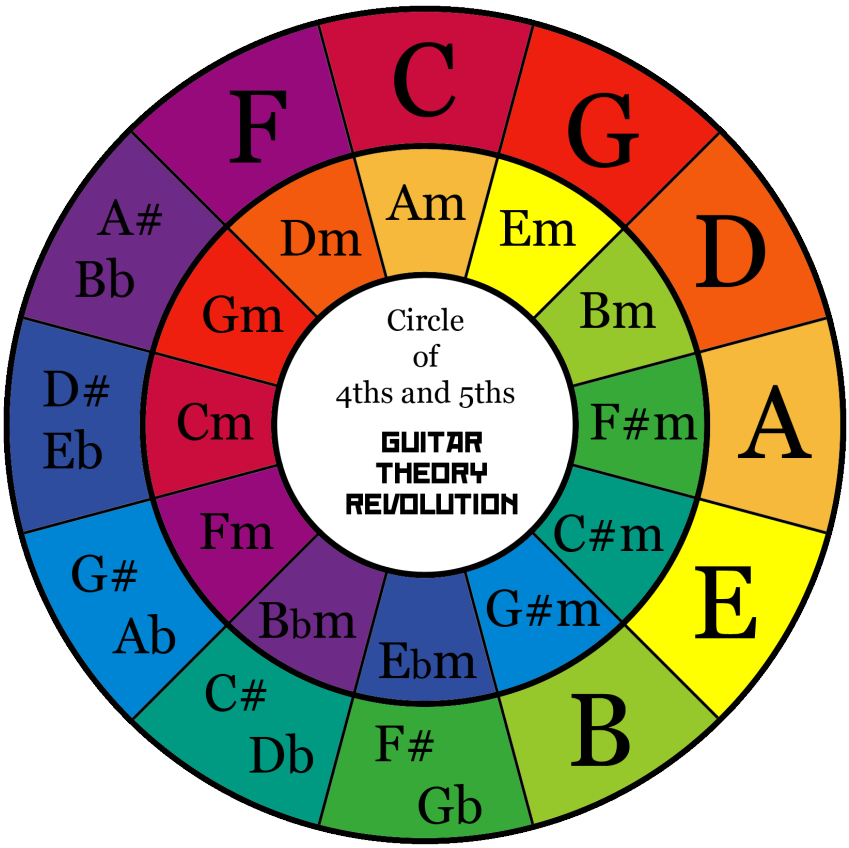


Minor Keys

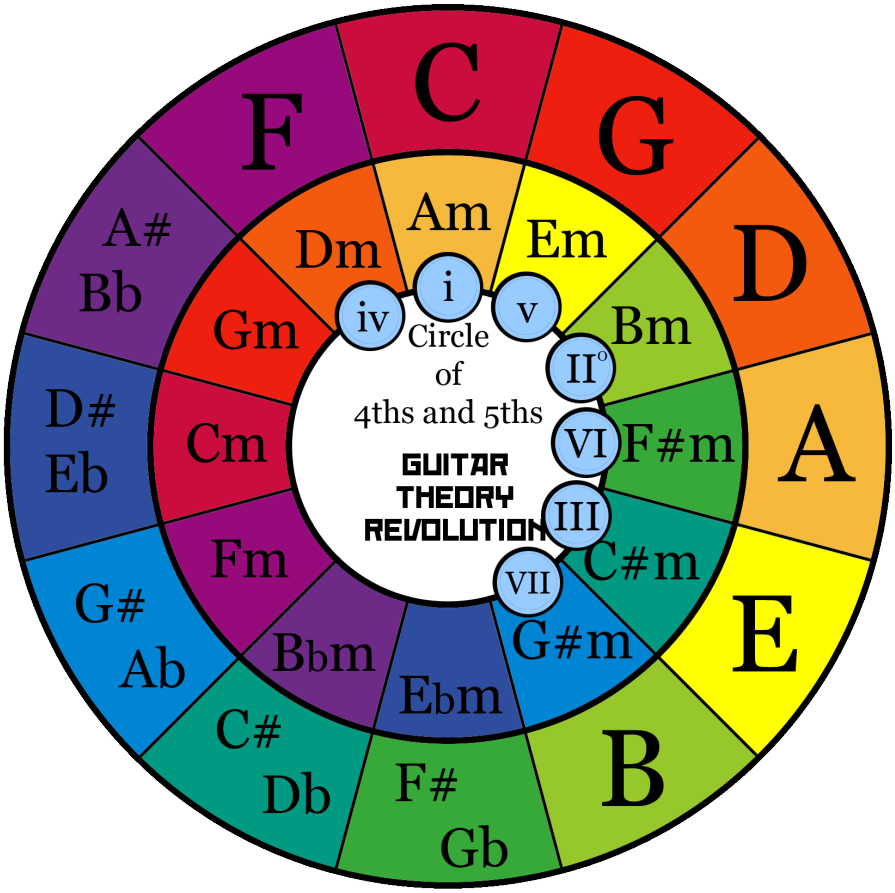
You can harmonise the Minor scale in the same way as the Major scale to find out all the Triads (chords) of each Minor key (in fact you can harmonise any scale). Analysing the fret formula of each resulting Triad will show you that the Roman numerals for Minor keys are:

i – II° – III – iv – v – VI – VII.

In the earlier chapter about Major and Minor scales I showed you that each Major scale has a relative Minor scale and vice-versa. The same goes for musical keys as well. An easy way to determine the relative Minor key of a Major key as follows. For example, from C imagine a line down to the centre of the circle then move out again to edge of the circle to the right at an angle of 90°, you will end up at the A. This means that the relative Minor key of the key of C Major is A Minor. See the diagram below for all the relative Minor keys for each Major key.



You can find the order of the Roman numerals for the Minor keys in the same way as is done for the Major keys, see the example for the key of **Am** below. You can shift the pattern around the circle to find the chords for each Minor key. Just place the **i** over the key you wish to know the chords for and then map out the other numerals in the same order.



7.3 Major and Minor key chord charts

While it's good to know how to figure out all the chords in a key using the circle of 4ths and 5ths you can also use the table below for quick reference. The sharp and flat keys are easy to figure out with these tables. Just raise the chords by a semi-tone to reach the required key. For example, raising the key of A Major by a semi-tone will give you the key of A# Major in which the first chord is obviously A# Major, the 2nd is Cm, the 3rd is Dm etc.

Major Key	I	ii	iii	IV	V	vi	vii°
A	A	Bm	C#m	D	E	F#m	G#dim
B	B	C#m	D#m	E	F#	G#m	A#dim
C	C	Dm	Em	F	G	Am	Bdim
D	D	Em	F#m	G	A	Bm	C#dim
E	E	F#m	G#m	A	B	C#m	D#dim
F	F	Gm	Am	Bb	C	Dm	Edim
G	G	Am	Bm	C	D	Em	F#dim

Minor Key	i	II°	III	iv	v	VI	VII
Am	Am	Bdim	C	Dm	Em	F	G
Bm	Bm	C#dim	D	Em	F#m	G	A
Cm	Cm	Ddim	Eb	Fm	Gm	Ab	Bb
Dm	Dm	Edim	F	Gm	Am	Bb	C
Em	Em	F#dim	G	Am	Bm	C	D
Fm	Fm	Gdim	Ab	Bbm	Cm	Db	Eb
Gm	Gm	Adim	Bb	Cm	Dm	Eb	F

Note: As en exercise go back to section 6.4 and play through these Major and Minor keys (From I to vii° or i to VII) substituting the appropriate 7th chords.

7.4 Common Chord Progressions

There are a few chord progressions that are very common in rock and pop music and form the basis for many famous hit songs. As a good example watch the video by a group called the Axis of Awesome. They explain how all the best songs are made up of just four chords and then go on to perform a medley of many popular songs using one particular chord progression.

Axis of Awesome - 4 Chords (Do a search on YouTube for "axis of awesome – 4 chords")

(Warning the first 60 seconds contains some strong language)

It's a good example of how a big part of writing pop and rock music isn't always about coming up with the most original chord-progression as it is about adding original melodies and coming up with a unique arrangement.

This performance by the Axis of Awesome is in the same key throughout and you can tell that it's not the original key of some of the songs included because they have to sing really high in some cases (For example during the Lion King and Maroon 5 songs). Remember, you can change keys by shifting the Roman numerals around the circle of 4ths and 5ths until the **I** is over the key you want it to be in.

Notice also that at 2:35 they speed up the tempo to play the next selection of songs. Chord progressions can be played at different tempos and it's up to you for how many bars you play each chord. Common chord-progressions and choosing chords within one key are not rules that must be adhered to, they're only guide lines. When you study more advanced music theory you can even write music that changes key midway through a piece.

Go back to the Major and Minor key tables and pick one of the Major keys then strum each chord in order. If you do it right it should sound very familiar. To finish this progression just play the first chord again for a satisfying resolution to the progression.

Now choose a chord progression such as **I – IV – V**, pick a Major key such as G and find the chords under **I**, **IV** and **V**. These are G, C and D. Strum the G for four counts, the C for two and the D for two as well. Next try playing the G and C for two counts each and the D for four. This chord progression should sound very familiar, it's used in countless songs. Next try the **I – V – IV** progressions. That would be G, D and C. Play G and D for two counts and the D for four. Again this should sound very familiar. Now try applying these chord progressions to different keys. For example **I – IV – V** in the key of F is F, Bb and C. You'll hear the progressions is the same, only in a different key.

Below you'll find a list of common chord progressions. These can help you figure out popular songs or serve as starting points for writing your own.

I – IV

I – V

I – IV – V

I – IV – I – V

I – IV – I – V7 – I

I – I – IV -vi

I – V – IV – V

I – V – vi – IV (Axis of Awesome)

I – ii – IV – V

I – ii – IV

I – iii – IV - vi

I – iii – IV -V

I – vi – ii – V

I – vi – IV – V

I – vi – ii – V7 – ii

ii – V – I

IV – I – IV – V

vi – IV – I - V

I – I – I – I – IV – IV – I – I – V – IV – I – V (12 Bar Blues)

I – IV - vii° – iii – vi – ii – V – I

7.5 How To Write Songs

The circle of 4ths and 5ths and the Major and Minor key chord charts are great tools to help you write your own music. Instead of just playing random chords and riffs and seeing what you stumble upon (don't get me wrong, it sometimes gets you great results) you can be a bit more deliberate in your approach. If you are a beginner they will guide you in the right direction and if you are suffering from writer's block it can be a great tool to get you out of a rut.

You can either pick a key and one of the common chord progressions from the last section and strum away in different rhythms and tempos, or pick some chords from a single key and make up your own progression. A good way to make a strong sounding progressions is by making sure that at least half the time the chords move by 4ths or 5ths. So just one chord along the circle of 4ths and 5ths in each direction.

Here's an example of how it's done. First pick a key and write down it's chords. We'll go with the key of C Major which has the chords: C, Dm, Em, F, G, Am and Bdim.

Now rearrange the chords so that the appear as they do around the circle of 4ths and 5ths. You should get this:

C, G, Dm, Am, Em, Bdim, F.

Your new chord progression will start with the C Major then jump to any chord along the list we've just made, then work back down towards the C. For example:

C, Dm, G

or

C, Em, Am, Dm, G

So you can see this is an easy way to come up with good sounding chord progressions. You can also employ this technique whenever a chord progression sounds too 'weak' and you want it to sound stronger again. Just add in a section that moves in 4ths and 5ths to get it back on track.

Chord Leading

Something else you can take into account when coming up with you own chord progressions is that certain chords naturally sound like they lead to others (due to their chord function which I'll explain later).

I	Leads to...	Any other chord
ii	Leads to...	IV, V, vii^{o}
iii	Leads to...	ii, IV, vi
IV	Leads to...	I, iii, V, vii^{o}
V	Leads to...	I
vi	Leads to...	ii, IV, V, I
vii^{o}	Leads to..	I, iii

Cadence

You can end a section of your musical piece by using chords to set up a natural tension and release. These are called cadences and there are few different commonly used cadences. These are:

Perfect Cadence

V – I
V7 – I

Plagal Cadence

IV – I (Not as a strong as the perfect Cadence so more often used in the middle of a song)

Imperfect Cadence

Ending on a V, for example:

I – V
ii – V
IV – V
vi – V

Interrupted Cadence

You start with a V which tricks the listener into thinking that a resolution is coming but then you move to any other chord besides the I.

V – IV
V – vi
V – ii
V – V7

Modulating

Modulating generally refers to the process of changing from one key or tonic centre to another (although you can modulate any musical parameter; tempo, volume etc.). It is a great way to change the feel of a song, to take it into another direction and to keep things interesting. There are several kinds of modulation and in this section you'll be shown the kinds that are most often used in pop, rock, blues and jazz music.

Direct Modulation

Direct modulation involves moving from one key to another without using any transitional chords. In popular music this is an abrupt shift up by a note or two in order to shift the energy of the music. An example would be playing a song in the key of C and then shifting up to C# for the last section.

Common Chord Modulation

Common chord modulation is simply moving from one key to another by using a chord that both keys share. For example the keys of G Major and D Major both share the chord G Major.

If you want a key change to be clear then you need to make sure that your first progression in the key of G Major contains chords that are not in the 2nd chord progression in the key of D Major and that the change in key is provided by a chord or chords that they both share.

The Diminished 7th is a great chord for modulating because there are basically only three versions of it which exist in 4 keys each.

Related Modulation

Related modulation can be done when two keys share a number of notes. If two keys have 6 or more notes in common then the keys are closely related. If they have fewer than 6 notes in common then they are distantly related.

Each key has four closely related keys (besides its own relative key A Minor) and they can be found easily. Just look at the circle of 4ths and 5ths and pick a key like C Major. The closely related keys are the ones either side of it and their relative Minor keys. That gives us G Major and E Minor, F Major and D Minor. The circle shows that keys that are close to each other are closely related and those further away from each other are distantly related.

Relative Key Modulation

Switching between a Major key and its relative Minor key within the same piece of music is called relative key modulation. An example would be playing a Minor key progression for the verse and a Major key progressions for the chorus. To find the Minor key that goes with the Major key use the diagram of the circle of 4ths and 5ths that shows both Major and Minor keys or find the **vi** chord of the Major key you are playing, then go to the Minor key table and chose that chord as the **i** in the Minor key.

If you have a Minor key progressions and you want to find the Major key that goes with it then find the **III** chord in the Minor key and look up that chord in the Major key table and pick that as the **I** chord.

For example, lets say you are playing a verse in the Minor key Am (Am, Dm and Em). You want to play a chorus in the Major key so you go to the **III** chord and see that it is C. You go to the Major key table and find the C. Now you choose some chords from this Major key, for example C, F and G Major. Try playing the chord progression all the way through. Am, Dm and Em, then C, F and G.

Parallel Modulation

Parallel modulation is modulation between a Major and Minor key that have the same root. For example from the key of Am Major to the key of A Minor.

Chord Substitution

One way to spice up a chord progression is by substituting some of the chords with something a bit more interesting, something often done in Jazz. .

One way to substitute chords is to take into account the different functions chords have. There are 3 basic functions that a chord can have: tonic, subdominant and dominant which are strongest served by the **I**, **IV**, and **V** respectively. But some of the other chords can fulfil these functions as well. Using the table below you can swap around different chords in your progressions. For example since the I and the iii can both serve the tonic function you can change a I – IV – V progression to iii – IV – V.

Chord Function	Major Key	Minor Key
Tonic	I, iii, vi	i, III
Subdominant	ii, IV, vi	iv, ii°, VI
Dominant	V, vii°	v, VII

Tonic chords, (temporarily) begin or end a piece of music, sub-dominant chords move away from the tonic towards the dominant chords which want to resolve back to the tonic chords.

Turnarounds

A turnaround is short phrase, often using four chords that functions a lot like the cadence discussed earlier in that it is a pleasing way to bring a progression back to the tonic.

Turnaround	Example				
I – IV – iii – ii	C	F	Em	Dm	C
I – vi – ii – V	C	Am	Dm	G	C
iii – VI – ii – V	Em	Am	Dm	G	C
I – vi – bvi – V	C	Am	Ab min	G	C
I – bVII – iii – ii	C	Bb	Em	Dm	C
IV – iii – ii – bii	F	Em	Dm	Db min	C
I – vi – bvi – bII	C	Am	Ab min	Db	C
I – VI – bV – bIII	C	A	Gb	Eb	C
I – bIII – bVI – bII	C	Eb	Ab	Db	C
I – bVII – bIII – bII	C	Bb	Eb	Db	C

Note that some of the turnarounds use chords from outside the key so you may see the occasional upper-case numeral where you would normally expect a lower-case numeral or a b (flat) in front of the numeral to indicate it is one fret lower than normal.

Borrowed Chords

Sometimes chords from outside the key work just as well in a chord progression which goes to show that these are only guidelines and that you can do whatever you want as long as it sounds good to you. Borrowed chords are often flats of chords from the key, for example bIII, bVII and bVI.

So for example bIII is a Major chord (capital Roman numeral) 1 fret lower from the iii or III chord in a Major or Minor key chord progression. This way you can still use the Roman numerals to write down your chord progressions that contain borrowed chords.

7.6 Exercises

Exercise 1: Figure out the chord progressions of your favourite songs

Look up some chord charts for your favourite songs and see if you can figure out what kind of chord progression they use. The first chord will usually determine which key it is in and from there you can identify the Roman numerals of the other chords (sometimes the very last chord is also a **I**). This is a great way to learn songs because you'll notice commonalities between songs and are more likely to remember chord progressions than individual chords.

Exercise 2: Figuring out songs by ear

Once you've done the first exercise a few times try figuring out a song by listening for the chord progression. Put on a song that you know well and strum along trying to find the Tonic chord of the song (the **I**), it is often the very first or very last chord of the song. Once you've found it take a look at the key signature tables and try playing some of the other chords from that key to figure out the rest of the song.

Exercise 3: Write a song using a classic chord progression

Use one of the classic chord progressions or one you've borrowed from a favourite song, play it in a different key and see if you can come up with a unique melody to sing over it. If you can't sing and play at the same time yet then ask a friend to do so. Or record yourself playing the chords and sing or improvise over it.

Exercise 4: Write a chord progression using some of the information in this chapter

You've learned such things as chord leading, the functions of various chords, cadences and turnarounds. Pick a key and one of those ideas and see if you can create a chord progression that incorporates one of those concepts.

Exercise 5: Write more chord progressions and songs and start breaking the rules

Pick a key and start playing random chords from it until you find something you like, note down the Roman numerals for the progression and keep it in a note book with your other musical ideas. If you're feeling adventurous try adding in chords from outside the key.

7.7 Chapter summary

- Roman Numeral System.
- Major and Minor key chord charts.
- Common chord progressions.
- Chord functions.
- Chord leading, cadences, modulation, substitution, turnarounds and borrowed chords.

Practice

- Figuring out the Roman numerals for your favourite songs.
- Figuring out songs by ear. Start with simple pop and rock songs.
- Writing chord progressions using some of the techniques learned in this chapter.

Chapter 8: More Scales and Modes

In This Chapter

- Major Pentatonic and Minor Pentatonic scales
- Minor scales
- Modes

8.1 What are the Major and Minor Pentatonic scales?

The Major and Minor Pentatonic scales are some of the most common scales in pop, rock and blues music. They are used for soloing as well as creating riffs. The name Pentatonic indicates that there are only five notes in this scale ('penta' means five), unlike other scales which have six, seven or more notes.

We covered the Major and Minor scales in a previous chapter and the Pentatonic scales are almost exactly the same except that in each two intervals have been removed. For the Major Pentatonic it's the intervals 0 - 5 and 0 - 11 and for the Minor Pentatonic it's the intervals 0 - 2 and 0 - 8 which have been removed.

Since the scales are the same in every other respect the Major pentatonic scale has a relative Minor Pentatonic scale attached to it. You can find it by taking the Major Pentatonic scale, for example the C Major Pentatonic scale, and playing the same notes but starting from the 5th note of the scale, in this case the A. And you can find the relative Major Pentatonic scale of a Minor Pentatonic scale by playing from the 2nd note of the Minor scale, which is C. Have a look at the information below to see how the two scales relate to each other.

Playing the same notes but from a different starting position means that the relationships between the notes (known as intervals) changes. This gives the Major and Minor scales a different sound.

C Major Pentatonic

Fret Formula: 0, 2, 4, 7, 9
Example: C, D, E, G, A

A Minor Pentatonic

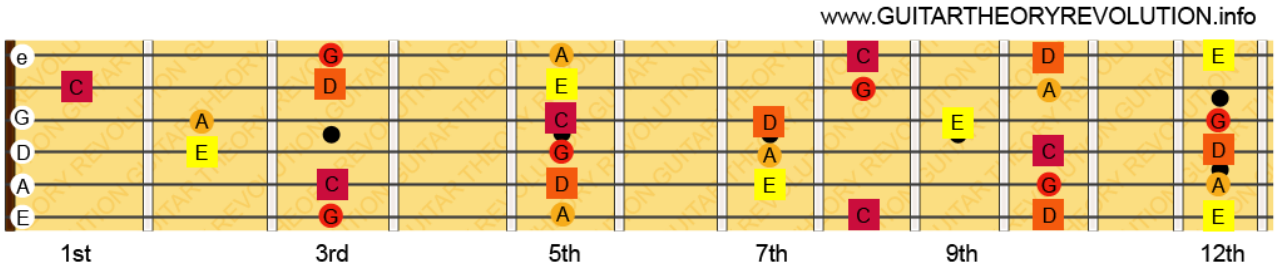
Fret Formula: 0, 3, 5, 7, 10
Example: A, C, D, E, G

8.2 Diagrams For All The Pentatonic Scales

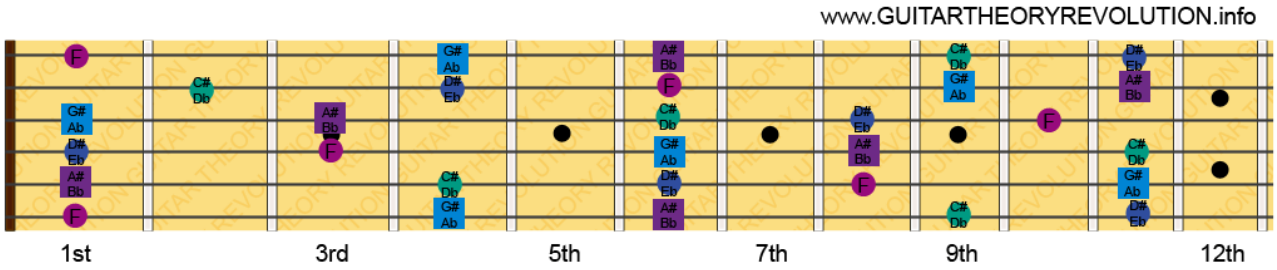
Below are diagrams for the Major and Minor Pentatonic scales in all 12 keys. As you can see each Major Pentatonic scale is also a relative Minor Pentatonic scale (which makes sense since they are basically the Major and Minor scales but with fewer notes)

To make learning all these scales easier you can skip to the next section and memorise the five Pentatonic scale patterns, then come back and see if you can identify the five patterns in these 12 diagrams.

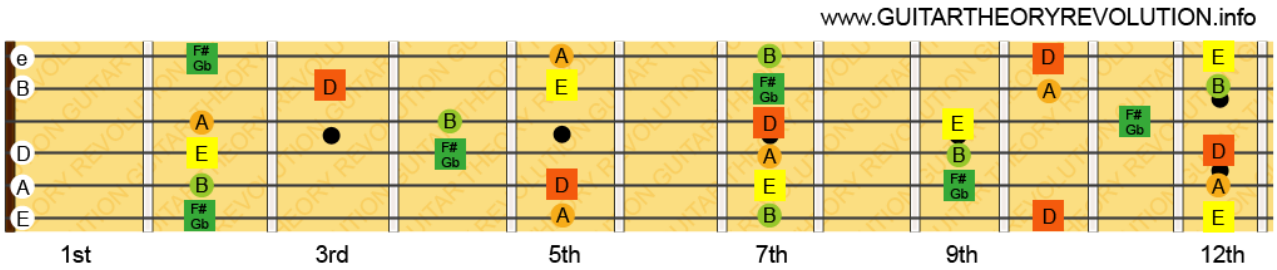
C Major Pentatonic / A Minor Pentatonic



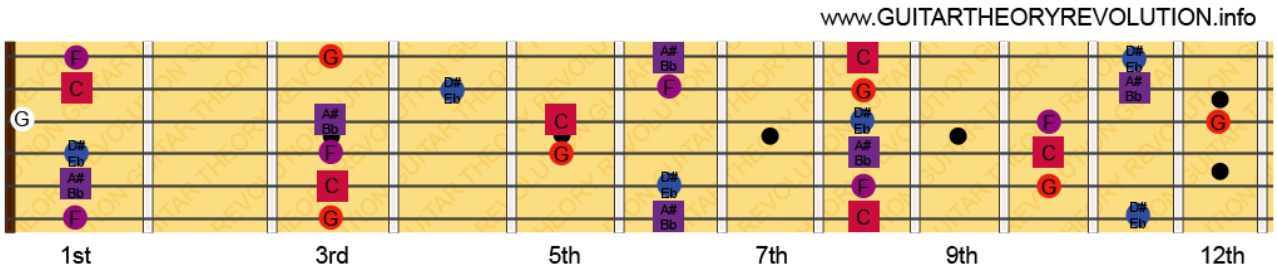
C# Major Pentatonic / A# Minor Pentatonic



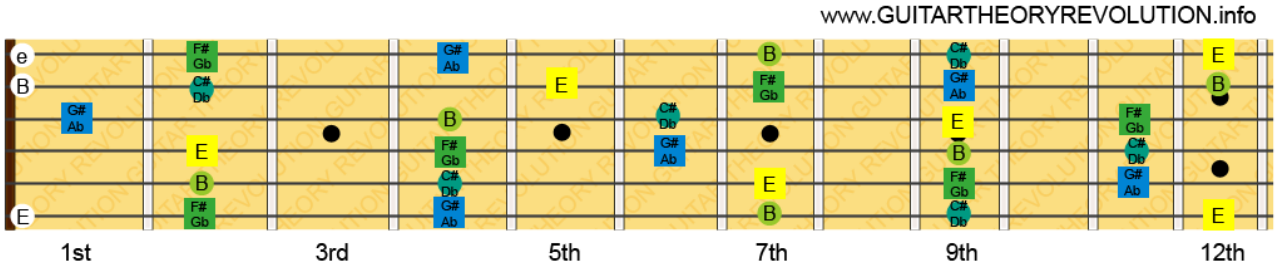
D Major Pentatonic / B Minor Pentatonic



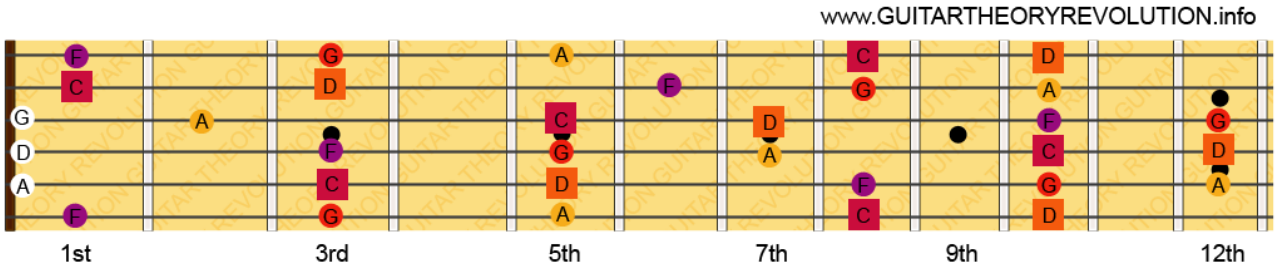
D# Major Pentatonic / C Minor Pentatonic



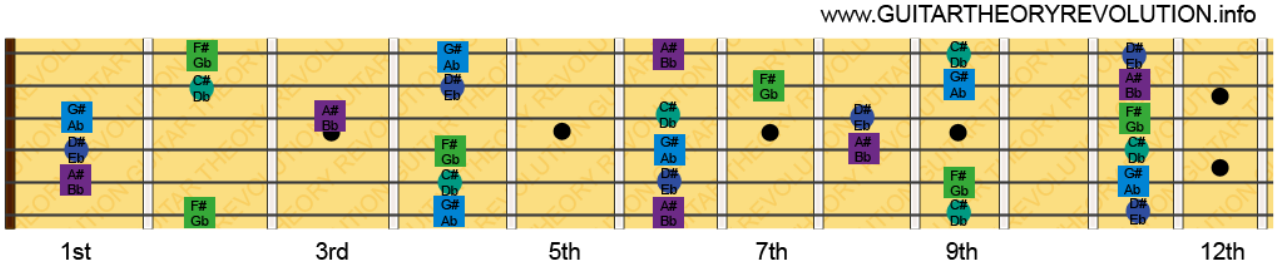
E Major Pentatonic / C# Minor Pentatonic



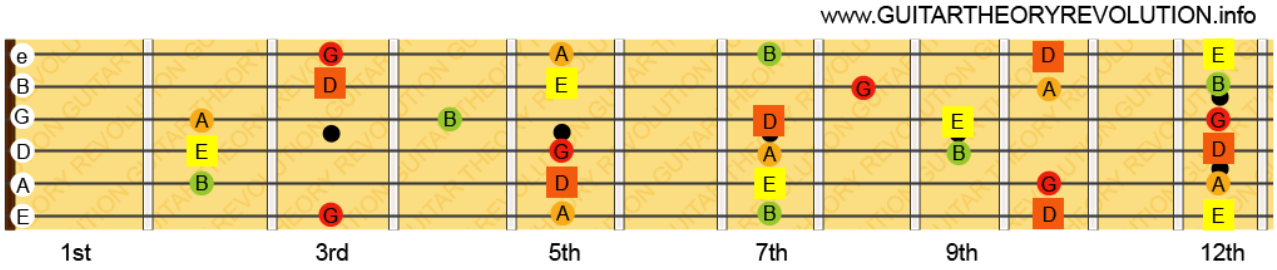
F Major Pentatonic / D Minor Pentatonic



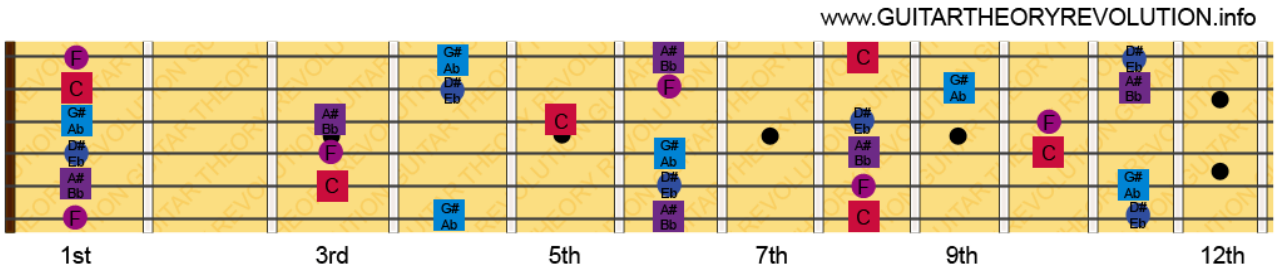
F# Major Pentatonic / D# Minor Pentatonic



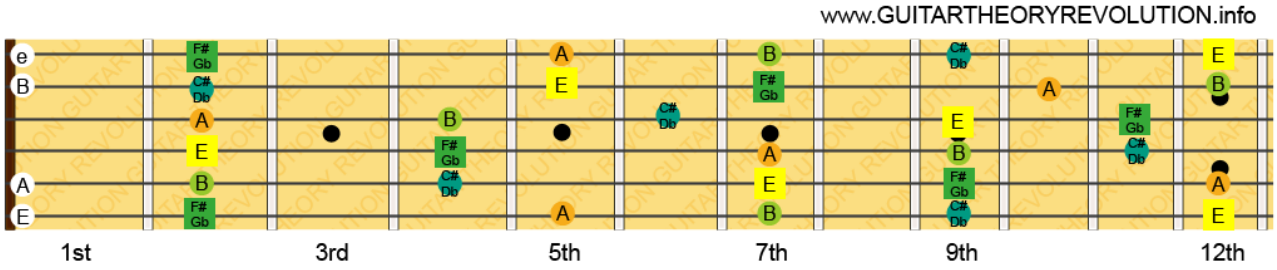
G Major Pentatonic / E Minor Pentatonic



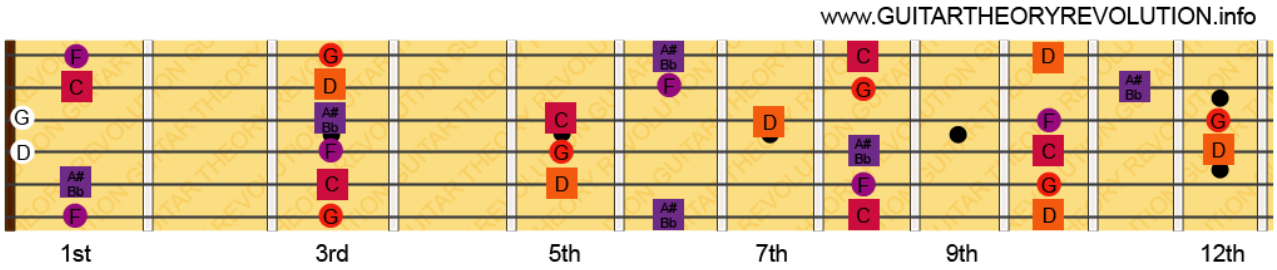
G# Major Pentatonic / F Minor Pentatonic



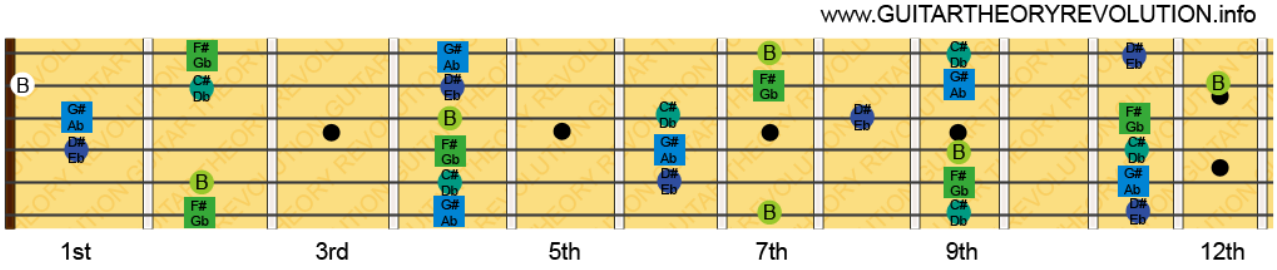
A Major Pentatonic / F# Minor Pentatonic



A# Major Pentatonic / G Minor Pentatonic



B Major Pentatonic / G# Minor Pentatonic



8.3 The Five Scale Patterns

A scale pattern is simply a diagram that shows you which notes to play in which order. The great thing about scale patterns is that you can learn the finger positions and then move that exact same pattern around the guitar neck to play the scale in different keys. Learning these five scale patterns will make it much easier to apply the Pentatonic scales in your playing.

When you've learned these five patterns go back to the 12 diagrams in the last section and see if you can see each pattern. Remember the patterns continue on past the 12th fret (the first octave) to the 13th, 14th fret etc. and so also loop around and appear from the 1st onwards. The patterns always appear in the same order and connect with each other.

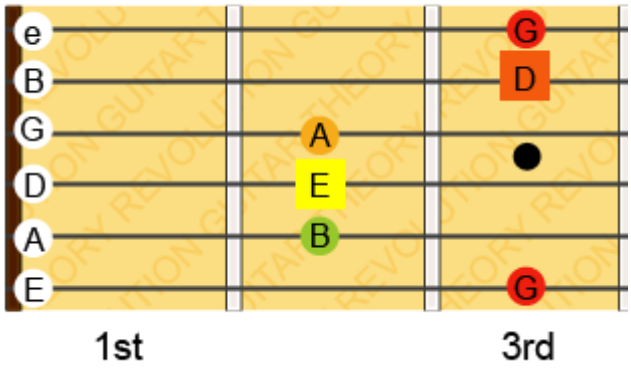
The patterns below are from the E Minor / G Major Pentatonic Scale but don't focus on the note names at this point, instead concentrate on memorising the patterns.

In the first diagram the white notes on the left represent plucking the strings without holding them down. This is also know as an open string. If you were to shift the pattern one fret to the right then you would hold down the strings at the first fret (it would then be an F Minor Pentatonic scale).

Minor Pentatonic Pattern 1 / Major Pentatonic Pattern 5

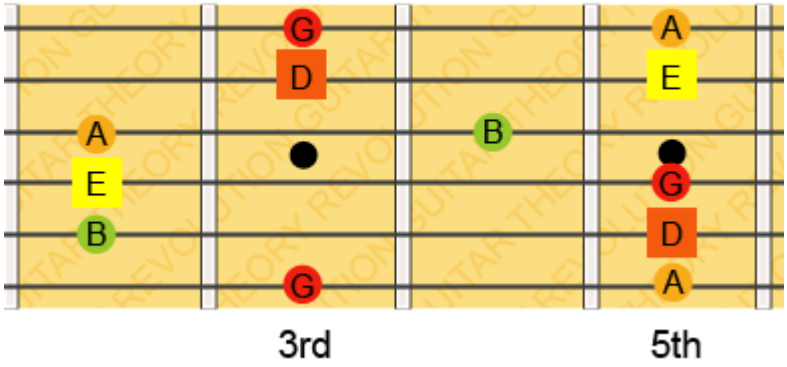
Playing this pattern from left to right and up across the strings means you will be playing the E Minor Pentatonic scale: E, G, A, B, D etc. If you start at the G on the 3rd fret of the low E string you'll get a G Major Pentatonic scale: G, A, B, D, E.

Because this pattern has an E as the first note this is pattern 1 of the E Minor Pentatonic Scale and all other Minor Pentatonic scales. To get this pattern in a different key just shift it along the fretboard. Have a look at the previous 12 diagrams to see this pattern at 12 different places on the fretboard.

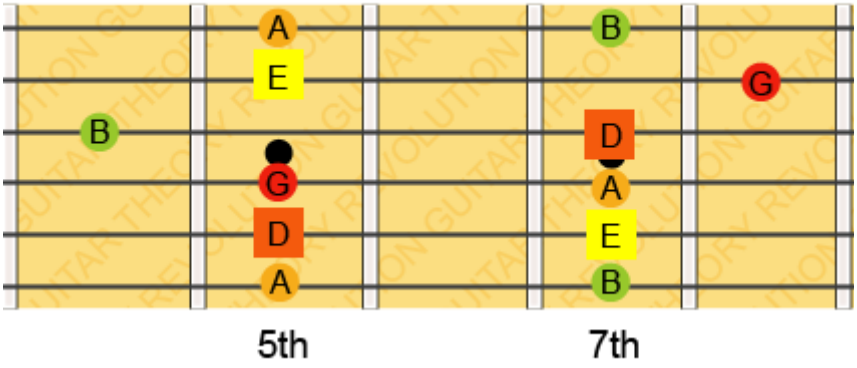


Minor Pentatonic Pattern 2 / Major Pentatonic Pattern 1

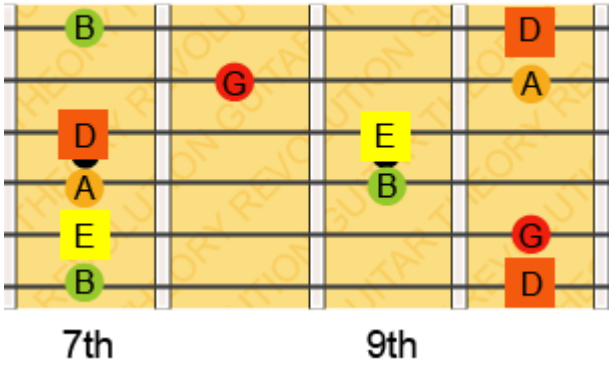
This is the second pattern of the Minor Pentatonic scale but the first pattern of the G Major Pentatonic scale because the first note you play is the G on the 3rd fret of the low E string (the thickest string).



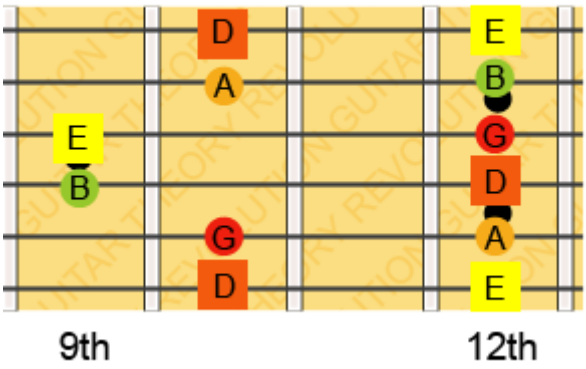
Minor Pentatonic Pattern 3 / Major Pentatonic Pattern 2



Minor Pentatonic Pattern 4 / Major Pentatonic Pattern 3



Minor Pentatonic Pattern 5 / Major Pentatonic Pattern 4



Look at the full diagram for the E Minor / G Major Pentatonic scale and you should be able to see how these scale patterns link up across the fretboard.

By the way, you may notice how these patterns are built up out of multiple instances of the Universal Note Pattern and that you can also see the CAGED chord pattern in them as well.

Keeping this is mind will make it easier to remember these patterns and will help you navigate around the fretboard more easily when you're using the scales.

8.4 Modes

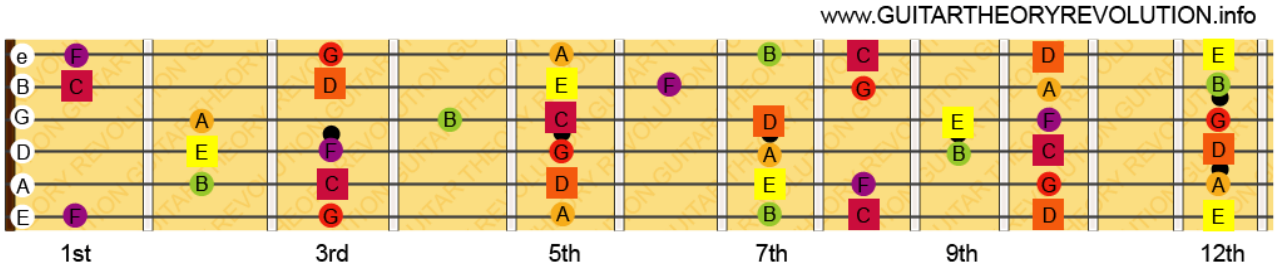
The modern use of the term Mode usually refers to the seven different scales you get by playing the notes of the Major scale but by starting on each of the different notes (there's more involved but that's the scope we will stick to in this book).

So if you take the C Major scale which is C, D, E, F, G, A B you can get seven different modes by starting on each different note. For example, starting on the D gives you, D, E, F, G, A, B, C, starting on the E, which gives you E, F, G, A, B, C, D etc.

By starting on a different note you change the order of the intervals and that gives you a different sounding scale each time. Each mode of the Major scale has a unique name.

Modes	Key of C Major
Ionian (Major)	C, D, E, F, G, A, B
Dorian	D, E, F, G, A, B, C
Phrygian	E, F, G, A, B, C, D
Lydian	F, G, A, B, C, D, E
Mixolydian	G, A, B, C, D, E, F
Aeolian (Natural Minor)	A, B, C, D, E, F, G
Locrian	B, C, D, E, F, G, A

In a sense you already know the different modes because they use the same notes of the Major scale, just with different starting notes. Look at the diagram below, pick a starting note and play all the notes in a three or four fret span up across the fretboard to play one of the Modes.



You can find the Fret Formulas for each mode listed in the Appendix.

As you advance in your knowledge of music theory you'll find that Modes have a lot more to them. For example, a good exercise to do is harmonise each mode in the same way we did for the Major and Minor scales. You'll find a set of Triads that will expose you to playing chord progressions in different modes.

8.5 Exercises

Exercise 1: Practice the five Pentatonic scale shapes

Practice and memorise the five Pentatonic scale shapes. Remember they are related to the five chord shapes of the CAGED chord pattern. As you play each pattern say the names of the notes as well as the Fret Formula (something you should do in any exercise involving the memorisation of scales or scale patterns).

Exercise 2: Practice the Pentatonic scales across the whole neck

Choose either one of the Major or Minor Pentatonic scale to work with first, choose a key and practice all five patterns one after the other playing the notes from the bottom to the top string in order. Do this for all 12 keys and make sure to sing or hum along with your playing to train your ear and your knowledge of the notes on the fretboard.

Exercise 3: Practice the Pentatonic scales along one string

Pick a key and either the Major or Minor Pentatonic scale and practice it along just one string for all 12 keys. Again try singing or humming along to your playing and count out the fret formulas as well if you haven't yet memorised them.

Exercise 4: Train yourself to recognise the different modes of the Major scale

Record yourself plucking a single note, for example the C, then try playing the different modes of the C Major scale over it. You'll find that some appeal to you more than others, maybe the Mixolydian if you are into Blues and Rock or the Phrygian if you like metal. As with every other scale you want to practice it within a fret-span of three to four frets (so that your hand stays in one place) as well as along one string. You want to practice it first of all until you know the Fret Formula, then the notes of that particular scale. At all times try to either sing, hum along or name the note or the interval that you are playing.

8.6 Chapter summary

- The Major and Minor pentatonic scales.
- The 5 pentatonic scale patterns.
- Modes of the Major scale.

Practice

- Memorise the Pentatonic scale patterns and modes.
- Practice them over some simple songs.

Chapter 9: Ear Training

In This Chapter

- Why ear training is important
- Exercises to develop your ability to hear and understand music

9.1 Why ear training is important

Ear training is in some ways the most important thing you can do as a musician. Music is after all about what you hear and the more you develop your ability to hear how music works the better a musician you will become. Unfortunately it is often overlooked as many guitarists are more focused on playing with their eyes and hands, following strict patterns rather than with their ears, playing what sounds good.

One of the reasons for this is that many people think that you are born with a good ear for music or that you are tone deaf. As with many things in life we may all have attributes that give us advantages or disadvantages, but they pale in comparison to the power of regular practice.

This is the secret to why some of your favourite guitar players claim to have no understanding of music theory yet can make and play amazing music. They spent thousands of hours playing guitar and can make the sounds they hear in their mind come out through their fingers and their instruments. They may not know what you mean when you say interval 0 – 7 or a Perfect 5th but they know exactly what it sounds like.

By studying this book and by doing ear training exercises you can combine the best of both worlds. You can have an understanding of how music works and at the same time train your ear so that you can improve your ability to express yourself, eventually having that ability to make the music that you hear in your head.

9.2 Recognising the intervals

Ear training is something you can do for yourself at any time, whenever you listen to music or play the guitar. But the fundamental thing that you need to start with is learning to recognise the different intervals by ear. Below is a list of all the intervals by fret distance and their conventional name.

Fret Formula	Conventional Name	Example	
0 – 0	Unison	C	(Same note twice)
0 – 1	Minor 2nd	C – C#	
0 – 2	Major 2nd	C – D	
0 – 3	Minor 3rd	C – D#	
0 – 4	Major 3rd	C – E	
0 – 5	Perfect 4th	C – F	
0 – 6	Augmented 4th or Diminished 5th	C – F#	(Also known as the Tritone)
0 – 7	Perfect 5th	C – G	
0 – 8	Minor 6th	C – G#	
0 – 9	Major 6th	C – A	
0 – 10	Minor 7th	C – A#	
0 – 11	Major 7th	C – B	
0 – 12	Octave	C – C	(Same note at double the frequency)

Below you'll find examples of all the intervals taken from famous pieces of music. Unless stated the examples contain the interval in the first two notes of the main melody. If you find other examples that work better for you, by all means use those to help you remember how the intervals sound.

Intervals	Ascending Examples
0 – 0	Jingle Bells: '**Jin-gle** Bells, **Jin-gle** Bells...'
0 – 1	Theme from Jaws: '**Dum, dum**, dum dum...'
0 – 2	Frere Jacques: '**Fre-re** Jacques, **Fre-re** Jacques...'
0 – 3	Somewhere Out There (American Tail): '**Some-where**, out there...'
0 – 4	Have Yourself A Merry Little Christmas: '**Have your**self a...'
0 – 5	Auld Lang Syne: '**For all**...'
0 – 6	Theme from The Simpsons: '**The Simp**-sons...'
0 – 7	Thus Sprak Zarathustra / Theme from 2001: The first two notes
0 – 8	'Across The Stars' from Attack of the Clones: The first two notes
0 – 9	My Bonnie Lies Over The Ocean: '**My bo**nnie lies...'
0 – 10	Theme from Star Trek the Original Series: The first two notes
0 – 11	Take On Me by Aha: '**Take on** me... take me on...'
0 – 12	Somewhere Over The Rainbow: '**Some-where** over the...'

Intervals	Descending Examples
0 – 0	Jingle Bells: '**Jin-gle** Bells, **Jin-gle** Bells...'
0 – 1	Joy To The World: '**Joy to** the world...'
0 – 2	Mary Had A Little Lamb: '**Ma-ry** had a little lamb...'
0 – 3	Hey Jude: '**Hey Jude** don't let me down...'
0 – 4	Swing Low Sweet Chariot: '**Swing low** sweet chariot...'
0 – 5	My Girl: '**My girl** talkin' 'bout my girl...'
0 – 6	Blue Seven by Sonny Rollins: The first two notes of the saxaphone
0 – 7	Theme from Flintstones: '**Flint-stones**, meet the flint-stones...'
0 – 8	Theme from Love Story: The first two notes
0 – 9	Nobody Knows The Trouble I've Seen: '**No-bo**dy knows...'
0 – 10	Lady Jane by the Rolling Stones: '**Just heed**...'
0 – 11	I Love You by Cole Porter: 'I **Love You**...”
0 – 12	Salt Peanuts by Dizzy Gillespie: 'Salt **pean-nuts**, salt peanuts...'

9.3 Exercises

Exercise 1: Recognising Major and Perfect intervals

In this first exercise you will practice recognising the intervals 0-2, 0-4, 0-5, 0-7, 0-9, 0-11 and 0-12 (start with ascending intervals before you try the descending ones). You need to record yourself playing these intervals in random order for a couple of minutes, saying the fret distance and interval name a couple of seconds after each set of notes. Then play the audio back and practice recognising the different intervals.

If you need to, stop your recording and sing or hum the famous examples you were shown earlier and compare them to the recording.

Another option is to practice with a friend and have them play random intervals while you look away and try to recognise them correctly.

Exercise 2: Recognising Minor and Augmented intervals

Repeat the first exercise but with the intervals: 0-1, 0-3, 0-6, 0-8 and 0-10. These are usually a bit harder to recognise so don't be discouraged if it takes longer to get these down.

Once you can recognise all the intervals in ascending order you can start practising them in descending order. A handy tip for these firs two exercises is to hum the intervals to yourself and then compare them to some of the example melodies from the previous chapter.

Exercise 3: Recognising chord progressions

Along with learning to recognise intervals you can start to learn to recognise different chord progressions.

Pick between one of the simple chord progressions (I-IV-V is a good one to start with) and record yourself playing them in a simple fashion (just a couple of slow strums for each chord) in a random order then yourself naming them afterwards. Start with simple progressions that only feature three or four chords before moving on to more complicated progressions.

Exercise 4: Recognising intervals and chord progressions in music

The next step is to start recognising intervals and chord progressions in real music (progressions are usually easier to start with). This is a bit more challenging because of all the other instruments playing besides the guitar, but you will develop a very practical skill doing this. Who doesn't want to be that person who can listen to a song on the radio and play it 30 minute later?

A good place to start is with songs from the 50's and 60's as well as contemporary rock and pop music because they all contain fairly simple chord progressions.

Continuing Your Ear Training

In truth ear-training is something you should be doing as much as possible. Sing or hum along with your playing, sing the note names and name the intervals for everything that you play.

When sitting in front of the TV have your guitar handy and have a go at figuring out how to play the music on all the TV shows, advertisements and movies you are watching. When you learn a new scale or mode practice it over a recording of a chord or chord progression in the correct key.

A great thing to do is to learn the melodies of music that you know very well, for example national anthems, famous classical music pieces or film music.

Finally practice making the music you hear in your mind. Imagine hearing a simple riff or chord progression and then see if you can figure out how to play it. You'll find that the more you practice this the less you'll be searching around the fretboard to find the right notes.

9.4 Chapter summary

- Ear training is possibly the most important thing you can do as musician
- You can train your ability to recognise and understand music in the same way you can improve any other skill.
- Ear training is something you can do at all times, even when listening to music without your guitar.
- The secret of many top guitar players is the sheer amount of hours they've been playing guitar and unconsciously training their ears so that they can play the music they hear in their mind.

Practice

- Memorise the examples of the ascending and descending exercises and how they sound.
- Practice recognising intervals and chord progressions.
- Sing or hum along with your playing.
- Practice coming up with music in your mind and replicating it on the guitar.

Chapter 10: Communicating with other musicians

In This Chapter

- How to communicate with other musicians.
- Naming conventions for intervals, scales, Triads and chords.

10.1 Overview

As you know the inspiration to write this book comes from the frustration that many guitar players feel when trying to learn music theory. Unfortunately most teaching and learning of music theory is done through a paradigm where the nomenclature (the names and terms used to describe things, in this case music theory) is often mistaken for the thing itself (how music works). Following on from that, the instrument that was designed to reflect the paradigm and the naming conventions (the piano) is now seen as the best instrument to use to learn music theory.

It's not my intention to say that one way is better than the other, just that there can be different ways to approach the task and that there are different ways for different people who play different instruments.

However most of us want to play music with other people and to do that we are going to have to be able to communicate with each other. So we need a shared language to describe music. (This is one of the main justifications for **only** using the standard ways of describing music theory.)

In this section I'll show you the ways in which music theory is normally described and how to translate between that and the GTR way of doing things. Eventually you may well end up using the conventional terms to talk about music simply because so many people and resources use them. That's great, because my intention is only to help you bridge that gap from having no clue about this topic to feeling confident. What you do from there is up to you.

In any case the GTR method will always be there for you, because at its core it is simply about counting the distance between notes. And there is nothing more fundamental than that.

10.2 Intervals

The space between two different notes is called an interval. In my method we count the distance between two notes in terms of fret distances. The convention is to count in half-steps (also known as semi-tones or half-tones).

A 0 – 1 fret distance is one half-step, a 0 – 2 fret distance is a whole-step, 0 -3 is 1½ steps etc. As you can see two half-steps make up a whole-step or whole tone (or simply a step or tone).

Fret Distance	Example	Number of ½ Steps	Number of Whole Steps
0 – 0	C – C	0	0
0 – 1	C – C#	1	½
0 – 2	C# - D	2	1
0 – 3	D – D#	3	1½
0 – 4	D# - E	4	2
0 – 5	E – F	5	2½
0 – 6	F – F#	6	3
0 – 7	F# - G	7	3½
0 – 8	G – G#	8	4
0 – 9	G# - A	9	4½
0 – 10	A – A#	10	5
0 – 11	A# - B	11	5½
0 – 12	B - C	12	6

Note: By this time you should be fully familiar with counting fret distances from a 0 point. So amongst musicians who know of this method you may find that you can just say 'interval 2' in stead of '0 – 2'. I've noticed some people in mainstream music education use this way of describing the intervals.

The most conventional way to describe the the intervals is by using a relative numbering system where each note in the 8 note Major scale (including the octave) is numbered 1 through 8. Any deviations from this (for other scales) are then annotated with a **b** or **#** (to indicate that a note is lowered or raised by half a step / semi-tone).

The convention is that in writing down a scale you only use each letter (C, D, E etc.) once. So you may encounter scales that have notes with unusual names. For example the Gb Major scale is officially named: **Gb, Ab, Bb, Cb, Db, Eb, F**. A Cb is normally a B. But since there is already a Bb in the scale it is named a Cb in stead. Depending on the key and scale it may also result in notes with two **b**'s or **#**'s.

In addition each of these 8 notes has a degree name. The degree names can also apply to the chords and Triads as shown by the Roman numerals on the right.

Relative Number	Degree	Degree Name	Roman Numeral
1	First (Root)	Tonic	I
2	Second	Supertonic	ii
3	Third	Mediant	iii
4	Fourth	Subdominant	IV
5	Fifth	Dominant	V
6	Sixth	Submediant	vi
7	Seventh	Subtonic or Leading Note	vii°
8	Eight (Octave)	Tonic	I

Now you know where the 2nd in Major 2nd comes from. It is the **Second** note in its natural state. However when you flatten that Second by a half-step it becomes a Minor 2nd or b2 as you'll see in the next table.

Certain intervals exist only as Perfect intervals: Perfect 4th, Perfect 5th and the Octave. When you raise a Perfect interval by a half-step it becomes an Augmented interval and when lowered by a half-step it becomes a Diminished interval. The tables below show the most commonly used interval names.

Fret Distance	Interval Name	Example	
0 – 0	(Perfect) Unison	C	(Same note twice)
0 – 1	Minor 2nd	C – C#	
0 – 2	Major 2nd	C – D	
0 – 3	Minor 3rd	C – D#	
0 – 4	Major 3rd	C – E	
0 – 5	Perfect 4th	C – F	
0 – 6	Augmented 4th or Diminished 5th	C – F#	(Also known as the Tritone)
0 – 7	Perfect 5th	C – G	
0 – 8	Minor 6th	C – G#	
0 – 9	Major 6th	C – A	
0 – 10	Minor 7th	C – A#	
0 – 11	Major 7th	C – B	
0 – 12	Octave	C – C	(Same note at double the frequency)

If someone uses an interval name you haven't heard of before just ask them how many ½ steps or semi-tones it is (fret distance).

Fret Distance	Interval Name	Half-Steps	Also Known As	Conventional #
0 – 0	Perfect Unison	0	diminished 2nd	bb2, 1
0 – 1	Minor 2nd	1		b2
0 – 2	Major 2nd	2	diminished 3rd	bb3, 2
0 – 3	Minor 3rd	3	Augmented 2nd	b3, #2
0 – 4	Major 3rd	4		3
0 – 5	Perfect 4th	5	Augmented 3rd	#3, 4
0 – 6	Augmented 4th	6	diminished 5th	b5, #4
0 – 7	Perfect 5th	7		5
0 – 8	Minor 6th	8	Augmented 5th	b6, #5
0 – 9	Major 6th	9	diminished 7th	bb7, 6
0 – 10	Minor 7th	10		b7
0 – 11	Major 7th	11		7
0 – 12	Octave	12		8

The intervals beyond the first octave also have names. Below is a list of all the interval names up to two Octaves.

0 – 13	Minor 9th	13		b9
0 – 14	Major 9th	14		9
0 – 15	Minor 10th	15	Augmented 9th	b10, #9
0 – 16	Major 10th	16		10
0 – 17	Perfect 11th	17		11
0 – 18	Augmented 11th or	18	diminished 12th	b12, #11
0 – 19	Perfect 12th	19		12
0 – 20	Minor 13th	20	Augmented 12th	b13, #12
0 – 21	Major 13th	21		bb14, 13
0 – 22	Minor 14th	22		b14
0 – 23	Major 14th	23		14
0 – 24	Perfect 15th	24	Double Octave	15

10.3 Common chord symbols

Below you'll find some commonly used symbols used to identify various chords which you may encounter in books, online or in written music.

Chord Name	Symbol	Alternate Symbols
Major	M	Maj, Δ
Minor	m	min, -
Major 6th	Maj6	Maj6, M6
Minor 6th	m6	min6, -6
six-nine	6/9	6(add9), Maj6(add9), M6(add9)
Major 7th	Maj7	M7, Maj7
Dominant 7th	7	
Minor 7th	m7	min7, -7
Minor with Major 7th	m(Maj7)	min(Maj7), -(M7)
Half-diminished 7th	m7b5	ø 7, half-dim7, m7(-5)
diminished 7th	º	dim, dim7
Augmented 7th	7+	7(#5), 7(+5)
Dominant 7th with b5	7b5	7(-5)
Major 9th	Maj9	Δ(add9)
Dominant b9	7b9	9(add b9), 7-9
Minor 11th	m11	m7(add11), min7(add11)
Major 7 #11th	Maj7#11	+11, Δ(+11), M7(#11), Maj7(+11)
Dominant 13th	13	7(add13), 7(add6)
Major 13th	Maj13	Δ(add13), M7(add13), Maj7(add13)
Minor 13th	m13	-13, m7(add13)
Suspended 4th	(sus 4)	(sus4)
Augmented	+	aug, #5, +5

Appendix: Chord and scale formulas

Here you'll find collected all the chord and scale formulas used in this book. You'll find both the GTR Fret Formula and the conventional way of spelling out each chord or scale.

A1: Scales

Major

Conventional:	1 – 2 – 3 – 4 – 5 – 6 – 7 – 8
Fret Formula:	0 – 2 – 4 – 5 – 7 – 9 – 11 – 12
Example:	C, D, E, F, G, A, B, C

(Natural)Minor

Conventional:	1 – 2 – b3 – 4 – 5 – b6 – b7 – 8
Fret Formula:	0 – 2 – 3 – 5 – 7 - 8 – 10 – 12
Example:	C, D, Eb, F, G, Ab, Bb, C

Harmonic Minor

Conventional:	1 – 2 – b3 – 4 – 5 – b6 – 7 – 8
Fret Formula:	0 – 2 – 3 – 5 – 7 – 8 – 11 – 12
Example:	C, D, Eb, F, G, Ab, B, C

Melodic Minor

Conventional:	1 – 2 – b3 – 4 – 5 – 6 – 7 – 8
Fret Formula:	0 – 2 – 3 – 5 – 7 – 9 – 11 - 12
Example:	C, D, Eb, F, G, A, B, C

A2: Triads and Chords

Major Triad

Conventional:	1 – 3 – 5
Fret Formula:	0 – 4 – 7
Example:	C, E, G

Minor Triad

Conventional:	1 – b3 – 5
Fret Formula:	0 – 3 – 7
Example:	C, D#, G

Diminished Triad

Conventional:	1 – b3 – b5
Fret Formula:	0 – 3 – 6
Example:	C, D#, F#

Augmented

Conventional:	1 – 3 - #5
Fret Formula:	0 – 4 – 8
Example:	C, E, G#

Minor 6th

Conventional:	1 – b3 – 5 - 6
Fret Formula:	0 – 3 – 7 - 9
Example:	C, D, F#, G#

Major 6th

Conventional:	1 – 3 – 5 - 6
Fret Formula:	0 – 4 – 7 – 9
Example:	C, E, G, A

Major 6/9

Conventional:	1 – 3 – 5 – 6 – 9
Fret Formula:	0 – 4 – 7 – 9 – 14
Example:	C, E, G, A, D

Minor 6/9

Conventional:	1 – b3 – 5 – 6 – 9
Fret Formula:	0 – 3 – 7 – 9 – 14
Example:	C, D#, G, A, D

Sus2

Conventional:	1 – 2 – 5
Fret Formula:	0 – 2 - 7
Example:	C, D, E

Sus4

Conventional:	1 – 4 – 5
Fret Formula:	0 – 5 – 7
Example:	C, F, G

Dominant 7th

Conventional:	1 – 3 – 5 – b7
Fret Formula:	0 – 4 – 7 – 10
Example:	C, E, G, A#

Major 7th

Conventional:	1 – 3 – 5 – 7
Fret Formula:	0 – 4 – 7 – 11
Example:	C, E, G, B

Minor with a Major 7th

Conventional:	1 – b3 – 5 -7
Fret Formula:	0 – 3 – 7 – 11
Example:	C, D#, G, B

Minor 7th

Conventional:	1 – b3 – 5 – b7
Fret Formula:	0 – 3 – 7 – 10
Example:	C, D#, G, A#

Diminished 7th

Conventional:	1 – b3 – b5 – 6
Fret Formula:	0 – 3 – 6 – 9
Example:	C, D#, F#, A

Minor 7th b5 or Half-Diminished 7th

Conventional:	1 – b3 – b5 - b7
Fret Formula:	0 – 3 – 6 – 10
Example:	C, D#, F#, A#

Augmented 7th

Conventional:	1 – 3 - #5 - 7
Fret Formula:	0 – 4 – 8 – 11
Example:	C, E, G#, B

A3: Modes of the Major scale and Pentatonic scales

Ionian (Major)

Conventional:	1 – 2 – 3 – 4 – 5 – 6 – 7 – 8
Fret Formula:	0 – 2 – 4 – 5 – 7 – 9 – 11 – 12
Example:	C, D, E, F, G, A, B, C

Dorian

Conventional:	1 – 2 – b3 – 4 – 5 – 6 – b7 – 8
Fret Formula :	0 – 2 – 3 – 5 – 7 – 9 – 10 – 12
Example:	C, D, Eb, F, G, A, Gb, C

Phrygian

Conventional:	1 – b2 – b3 – 4 – 5 – b6 – b7 – 8
Fret Formula:	0 – 1 – 3 – 5 – 7 – 8 – 10 – 12
Example:	C, Db, Eb, F, G, Ab, Bb, C

Lydian

Conventional:	1 – 2 – 3 - #4 – 5 – 6 – 7 – 8
Fret Formula:	0 – 2 – 4 – 6 – 7 – 9 – 11 – 12
Example:	C, D, E, F#, G, A, B, C

Mixolydian

Conventional:	1 – 2 – 3 – 4 – 5 – 6 – b7 – 8
Fret Formula:	0 – 2 – 4 – 5 – 7 – 9 – 10 – 12
Example:	C, D, E, F, G, A, Bb, C

Aeolian (Natural Minor)

Conventional:	1 – 2 – b3 – 4 – 5 – b6 – b7 – 8
Fret Formula:	0 – 2 – 3 – 5 – 7 – 8 – 10 – 12
Example:	C, D, Eb, F, G, Ab, Bb, C

Locrian

Conventional:	1 – b2 – b3 – 4 – b5 – b6 – b7 – 8
Fret Formula:	0 – 1 – 3 – 5 – 6 – 8 – 10 – 12
Example:	C, Db, Eb, F, Gb, Ab, Bb, C

Major Pentatonic

Conventional:	1 – 2 – 3 – 5 – 6 – 1
Fret Formula:	0 – 2 – 4 – 7 – 9 - 12
Example:	C, D, E, F, G, A, C

Minor Pentatonic

Conventional:	1 – b3 – 4 – 5 – b7 – 1
Fret Formula:	0 – 3 – 5 – 7 – 10 – 12
Example:	C, Eb, F, G, Bb, C

A4: Additional Resources

Guitar Theory Revolution

Official Websites: www.guitartheoryrevolution.info, www.guitartheoryrevolution.com
YouTube Channel: http://www.youtube.com/user/TheGTRChannel
FaceBook: http://www.facebook.com/guitartheoryrevolution

Please get in touch with me to find out about seminars and private lessons.

neill@guitartheoryrevolution.info

Chord and Scale Books

These two books will provide you with enough chord and scale diagrams to last you a life-time.

The Guitar Grimoire: A Compendium of Formulas for Guitar Scales and Modes
Guitar Grimoire a Compendium of Guitar Chords and Voicings

OVERTHROW THE PIANO PARADIGM AND JOIN THE GUITAR THEORY REVOLUTION!

- Learn theory in a whole new way, specific to the guitar and unlike anything you've seen before.
- Memorise all the notes on the fretboard using the Universal Note Pattern.
- Learn the CAGED and BEAD-GCF patterns.
- Use the Circle of 4ths and 5ths to write hit songs.
- Learn scales such as the Major, Minor and Pentatonic scales, as well as all the Modes of the Major scale.
- Use the Roman Numeral system to learn hundreds of chord progressions.
- Play Major, Minor, Augmented Diminished, 6th and 7th chords all over the neck.
- Learn to play by ear, figure out songs just by listening to them and improve your composing ability.
- Chapter summary and exercises at the end of each chapter to aid your learning.

www.GuitarTheoryRevolution.info