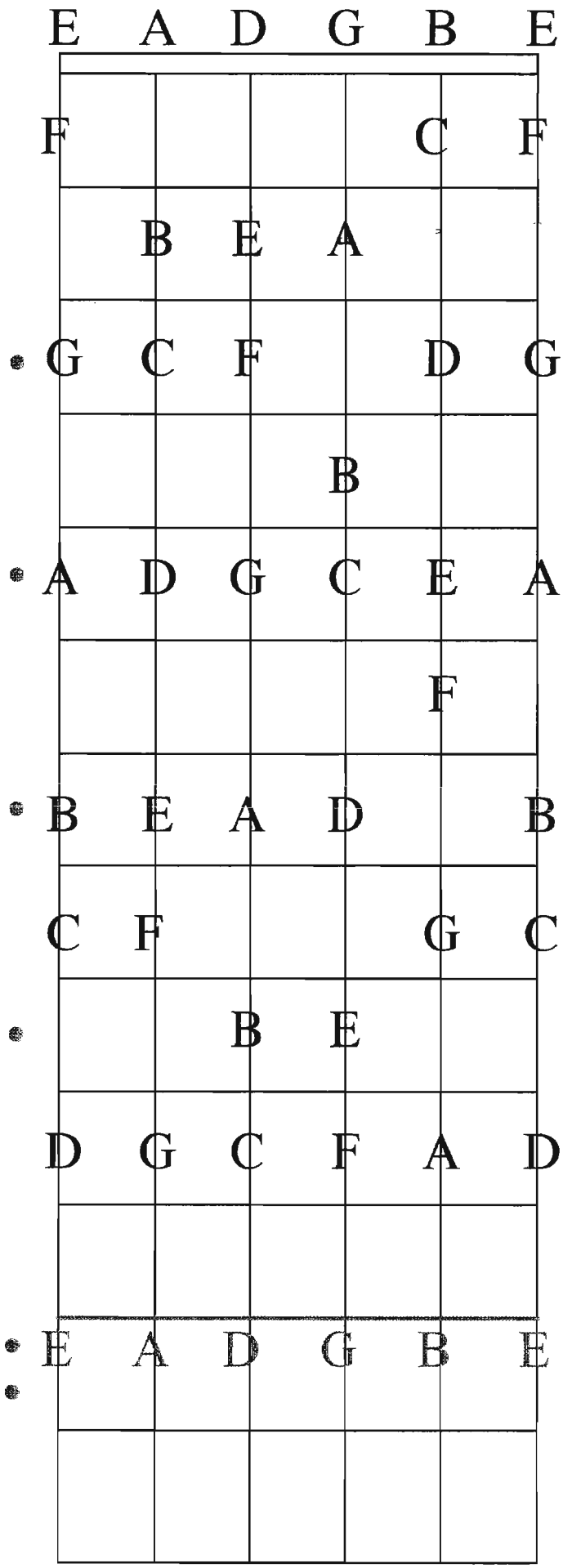


The Guitar Neck: Learning the Notes

• Memorize the E(6th) and A(5th) strings first.

• Only concern yourself with the *natural* notes (as can be seen to the left). To find a sharp go one fret higher, and to find a flat go one fret lower. For example: $F^{\#}$ is one fret higher than the note F, whereas G^{b} is one fret lower than G.

• Once you have this done, take any spot on the 5th or 6th string and play the note that is **2 strings and 2 frets higher**. This will be the same note (only pitched an octave higher).

• This will give you all the notes for all the strings except the B(2nd) string.

• To learn the notes on the B string, you have two options:

1. If you know your fifths in every key: starting with any note on the High E (1st) string, just stay on the same fret and go one string lower, and that will be the fifth of that key. This also works for all the other strings with the exception of the B(2nd) string.
2. Just tediuosly memorize the notes on your B string like you did with the E and A strings.

• If you are a busy person and don't have time to concern yourself with all manner of guitar neck minutae, then you could probably skip learning everything mentioned above with the exception of the first point. If you don't learn the E and A strings at the *very minimum*, your life could very well devolve into a existence full of hardship, lost opportunities, and all sorts of unfulfilled satisfactions.

Guitar Keys and Chords

Key		Notes in this Key								Chords in this Key						
		1	2	3	4*	5	6	7*	8	I	ii	iii	IV	V	vi	vii°
C	Major	C	D	E	F	G	A	B	C	C	Dm	Em	F	G	Am	Bdim
	Relative minor	A	B	C	D	E	F	G	A							
	Parallel minor	C	D	$E^{\flat}$	F	G	$A^{\flat}$	$B^{\flat}$	C							
G	Major	G	A	B	C	D	E	$F^{\#}$	G	G	Am	Bm	C	D	Em	$F^{\#}$dim
	Relative minor	E	$F^{\#}$	G	A	B	C	D	E							
	Parallel minor	G	A	$B^{\flat}$	C	D	$E^{\flat}$	F	G							
D	Major	D	E	$F^{\#}$	G	A	B	$C^{\#}$	D	D	Em	$F^{\#}$m	G	A	Bm	$C^{\#}$dim
	Relative minor	B	$C^{\#}$	D	E	$F^{\#}$	G	A	B							
	Parallel minor	D	E	F	G	A	$B^{\flat}$	C	D							
A	Major	A	B	$C^{\#}$	D	E	$F^{\#}$	$G^{\#}$	A	A	Bm	$C^{\#}$m	D	E	$F^{\#}$m	$G^{\#}$dim
	Relative minor	$F^{\#}$	$G^{\#}$	A	B	$C^{\#}$	D	E	$F^{\#}$							
	Parallel minor	A	B	C	D	E	F	G	A							
E	Major	E	$F^{\#}$	$G^{\#}$	A	B	$C^{\#}$	$D^{\#}$	E	E	$F^{\#}$m	$G^{\#}$m	A	B	$C^{\#}$m	$D^{\#}$dim
	Relative minor	$C^{\#}$	$D^{\#}$	E	$F^{\#}$	$G^{\#}$	A	B	$C^{\#}$							
	Parallel minor	E	$F^{\#}$	G	A	B	C	D	E							
B	Major	B	$C^{\#}$	$D^{\#}$	E	$F^{\#}$	$G^{\#}$	$A^{\#}$	B	B	$C^{\#}$m	$D^{\#}$m	E	$F^{\#}$	$G^{\#}$m	$A^{\#}$dim
	Relative minor	$G^{\#}$	$A^{\#}$	B	$C^{\#}$	$D^{\#}$	E	$F^{\#}$	$G^{\#}$							
	Parallel minor	B	$C^{\#}$	D	E	$F^{\#}$	G	A	B							
$G^{\flat}$	Major	$G^{\flat}$	$A^{\flat}$	$B^{\flat}$	$C^{\flat}$	$D^{\flat}$	$E^{\flat}$	F	$G^{\flat}$	$G^{\flat}$	$A^{\flat}$m	$B^{\flat}$m	$C^{\flat}$	$D^{\flat}$	$E^{\flat}$m	Fdim
	Relative minor	$E^{\flat}$	F	$G^{\flat}$	$A^{\flat}$	$B^{\flat}$	$C^{\flat}$	$D^{\flat}$	$E^{\flat}$							
	Parallel minor	$F^{\#}$	$G^{\#}$	A	B	$C^{\#}$	D	E	$F^{\#}$							
$D^{\flat}$	Major	$D^{\flat}$	$E^{\flat}$	F	$G^{\flat}$	$A^{\flat}$	$B^{\flat}$	C	$D^{\flat}$	$D^{\flat}$	$E^{\flat}$m	Fm	$G^{\flat}$	$A^{\flat}$	$B^{\flat}$m	Cdim
	Relative minor	$B^{\flat}$	C	$D^{\flat}$	$E^{\flat}$	F	$G^{\flat}$	$A^{\flat}$	$B^{\flat}$							
	Parallel minor	$D^{\flat}$	$E^{\flat}$	$F^{\flat}$	$G^{\flat}$	$A^{\flat}$	B	$C^{\flat}$	$D^{\flat}$							
$A^{\flat}$	Major	$A^{\flat}$	$B^{\flat}$	C	$D^{\flat}$	$E^{\flat}$	F	G	$A^{\flat}$	$A^{\flat}$	$B^{\flat}$m	Cm	$D^{\flat}$	$E^{\flat}$	Fm	Gdim
	Relative minor	F	G	$A^{\flat}$	$B^{\flat}$	C	$D^{\flat}$	$E^{\flat}$	F							
	Parallel minor	$A^{\flat}$	$B^{\flat}$	$C^{\flat}$	$D^{\flat}$	$E^{\flat}$	$F^{\flat}$	$G^{\flat}$	$A^{\flat}$							
$E^{\flat}$	Major	$E^{\flat}$	F	G	$A^{\flat}$	$B^{\flat}$	C	D	$E^{\flat}$	$E^{\flat}$	Fm	Gm	$A^{\flat}$	$B^{\flat}$	Cm	Ddim
	Relative minor	C	D	$E^{\flat}$	F	G	$A^{\flat}$	$B^{\flat}$	C							
	Parallel minor	$E^{\flat}$	F	$G^{\flat}$	$A^{\flat}$	$B^{\flat}$	$C^{\flat}$	$D^{\flat}$	$E^{\flat}$							
$B^{\flat}$	Major	$B^{\flat}$	C	D	$E^{\flat}$	F	G	A	$B^{\flat}$	$B^{\flat}$	Cm	Dm	$E^{\flat}$	F	Gm	Adim
	Relative minor	G	A	$B^{\flat}$	C	D	$E^{\flat}$	F	G							
	Parallel minor	$B^{\flat}$	C	$D^{\flat}$	$E^{\flat}$	F	$G^{\flat}$	$A^{\flat}$	$B^{\flat}$							
F	Major	F	G	A	$B^{\flat}$	C	D	E	F	F	Gm	Am	$B^{\flat}$	C	Dm	Edim
	Relative minor	D	E	F	G	A	$B^{\flat}$	C	D							
	Parallel minor	F	G	$A^{\flat}$	$B^{\flat}$	C	$D^{\flat}$	$E^{\flat}$	F							

*The 4th & 7th degree notes are not played in the pentatonic scales.

UNIT 1: MAJOR SCALE CONSTRUCTION

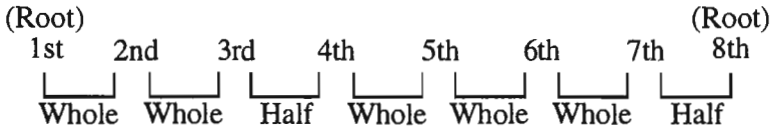
The major scale is the most used scale. It is a basic reference point for most musical concepts.

Whole Steps/Half Steps: On the guitar, a half step equals the distance (and sound) from one fret to the next. A whole step equals two frets.

All major scales contain eight notes, beginning and ending on the same note (the root) and spaced by a series of whole steps and half steps.

The major scale can start on any note, but it will always follow this specific pattern of whole steps and half steps:

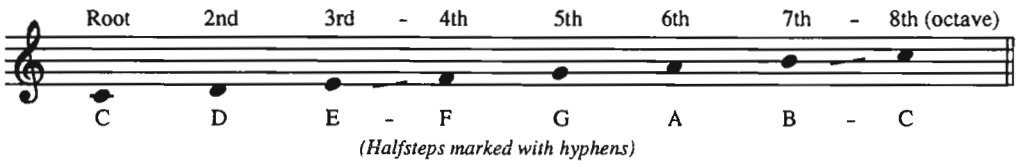
1-1-1/2-1-1-1-1/2 (1 = A WHOLE STEP, 1/2 = A HALF STEP)



Notice: Half steps occur only between the 3rd and 4th, and the 7th and 8th tones of a major scale.

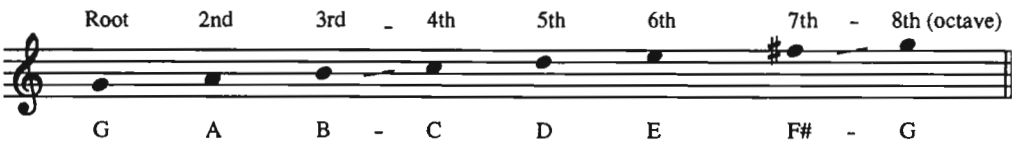
A major scale can start on any root note. When playing the notes of a major scale, we say we are playing in the key named for that root. For instance, if we are playing the G major scale notes, then we say we are in "the key of G Major."

Here is a C major scale:



(Halfsteps marked with hyphens)

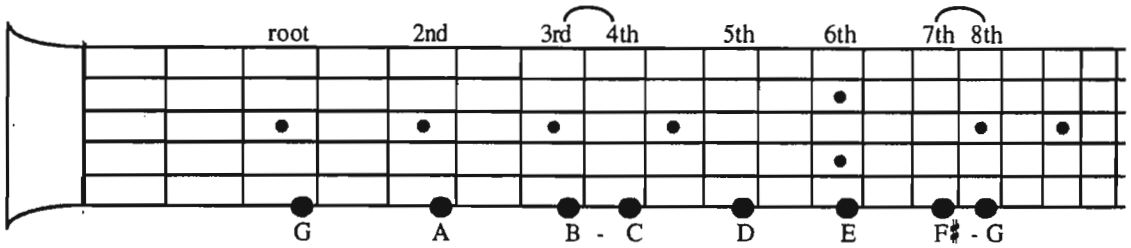
Here you can see that an F♯ is required to meet the pattern of whole and half steps for a major scale in the key of G:



In the keys of G, D, A, E, F♯, B and C♯, you have to sharp (raise) the pitch of some of the natural notes to get the correct major scale pattern of whole and half steps. In the keys of F, B♭, E♭, A♭, D♭, G♭, and C♭, you have to flat (lower) the pitch of some of the natural notes to get the correct pattern.

Building Major Scales on the Guitar

Using the major scale pattern of whole and half steps, build a G major scale on the low "E" string, as shown below:



Now try building single-string major scales for each of the following "sharp" keys: G, D, A, E and F♯. Then, try building single-string major scales for each of the following "flat" keys: F, B♭, E♭, A♭, and D♭.

Building Major Scales in Theory

Write in the sharps (or flats in the second part) for each of the following major scales. (Just apply the major scale pattern of whole and half steps -- 1-1-1/2-1-1-1-1/2 -- to each scale.)

Sharp Keys:

Example: E F♯ G♯ A B C♯ D♯ E (Tip: The key of E has four sharps.)

1) D E F G A B C D

2) A B C D E F G A

3) B C D E F G A B

4) F♯ G A B C D E F♯

Flat Keys:

Example: E♭ F G A♭ B♭ C D E♭ (Tip: The key of E♭ has three flats.)

1) F G A B C D E F

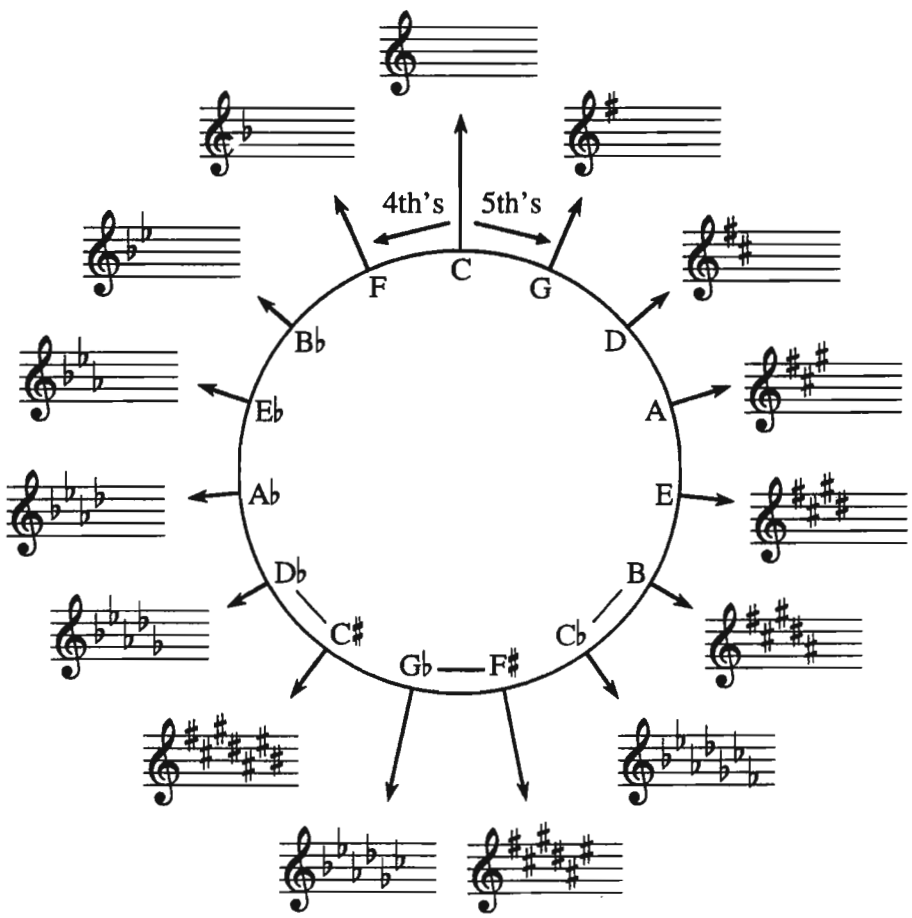
2) A♭ B C D E F G A♭

3) D♭ E F G A B C D♭

4) B♭ C D E F G A B♭

Cycle of Fourth's

The cycle of fourth's (moving from key to key by intervals of a fourth) can be used to show the entire sequence of key signatures. Moving counter-clockwise, the cycle progresses from no flats (key of C) to six flats (key of G♭). Moving clockwise, the cycle progresses from no sharps (key of C) to six sharps (key of F♯).



UNIT 2: SCALE FINGERING PATTERNS

Most guitarists use fingering patterns which allow them to visualize and learn one area on the neck at a time. Eventually, the goal is to put those patterns back together and see the fingerboard as a whole, rather than segmented patterns.

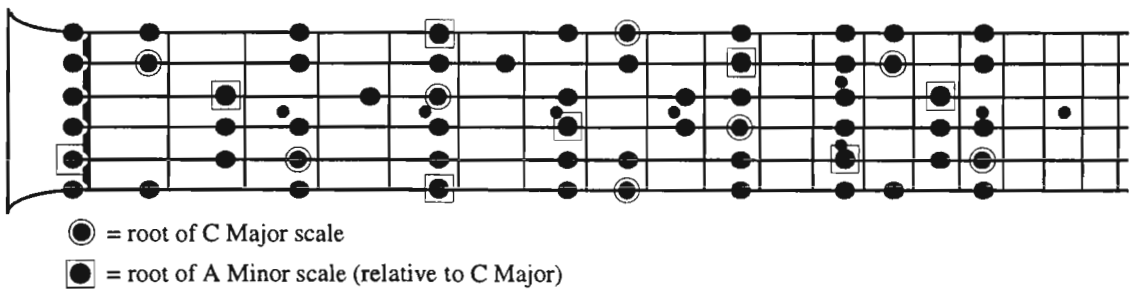
A cool thing about the guitar is that we don't have to learn different sets of fingering patterns to play in different keys. We don't even have to remember how many sharps or flats are in each key! By positioning a fingering pattern at the correct fret location, all the correct notes will be there, already contained in the pattern.

There are an unlimited number of ways to create fingering patterns for a major scale, but the two most popular are the traditional five fingering patterns and the seven three-note-per-string patterns.

The Traditional Five Patterns

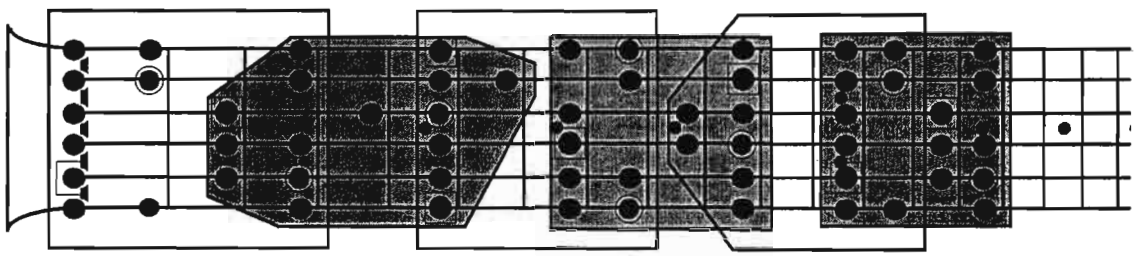
These are used in most of GIT's single-string classes. Each one stays within a particular position on the fretboard, and there are only five to memorize -- covering the whole neck. I think each of these patterns has a distinct personality, so they're not too crazy to remember; although like anything worth while, it takes a good amount of time to really master them and easily move from one to another.

Here are two charts, both with all the notes on the fingerboard in the key of C. The second chart has been divided into the traditional five patterns. (You will find a chart showing all five patterns separately in your Scale Glossary.)



● = root of C Major scale

■ = root of A Minor scale (relative to C Major)



Each of these patterns are shown in the key of C major. To transpose them to other keys, simply locate the root (indicated with a circle) and position the fingering at the correct position. For example, the root for Pattern 2 is located on the 5th string. To transpose the pattern from C to D, shift it up the neck two frets.

Scale Exercise 1

Turn to the major scale section of the Scale Glossary, and play through each of the five traditional major scale patterns as they are written in the key of C. I recommend using alternate (down and up) picking, starting with a down stroke.

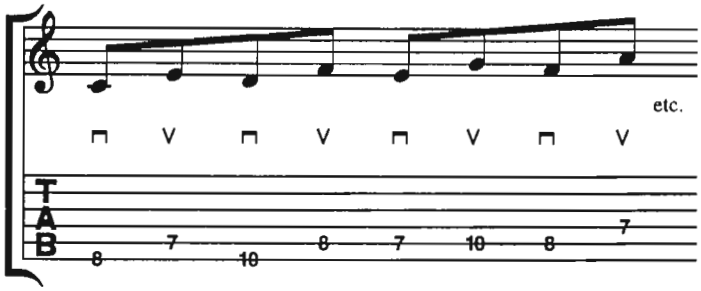
Next, by locating where the roots are, adjust each of the five patterns to the keys of G, D, A, E and B major.

Scale Exercise 1A

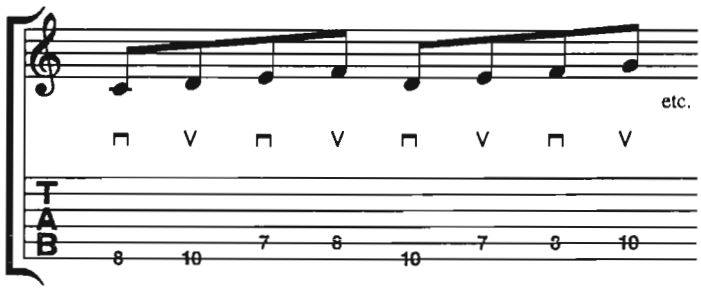
Go back through Exercise 1, only this time use scale sequences. Sequences really help you learn the scale notes and they also give you vocabulary to use when soloing.

Here are two popular sequences for the traditional fingering patterns:

"Thirds" Sequence:



"Group Of Four" Sequence:



The Seven Three-Note-Per-String Patterns

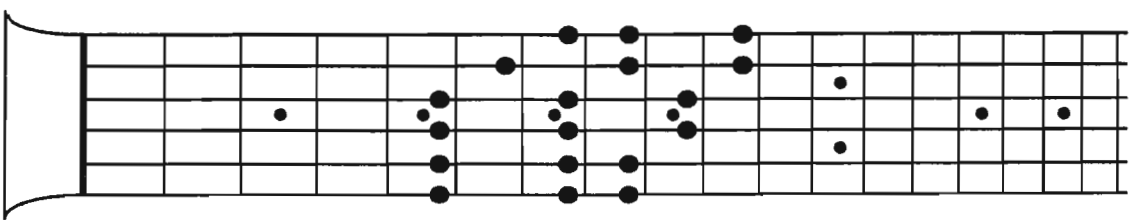
This is the other popular way to divide up the neck, especially for shredders. The three-note-per-string patterns are excellent for building speed and developing cool guitaristic licks.

In each pattern, on every string, you have exactly three notes, so any lick or phrase can be easily adjusted to other strings, while staying within the same fingering pattern. Furthermore, any phrase in one location can be adjusted to virtually any other location, within the other six patterns as well. Plus, the picking is simpler because you always pick three-notes-per-string.

Here's the formula for building these major scale patterns:

1) Play three notes on every string;
2) Every pattern starts on the low E, from each of the seven different scale steps;
3) No unisons.

Here is an example of one of these patterns. This one starts on the 6th step of the C major scale:



You will find a separate chart for each pattern in the Scale Glossary.

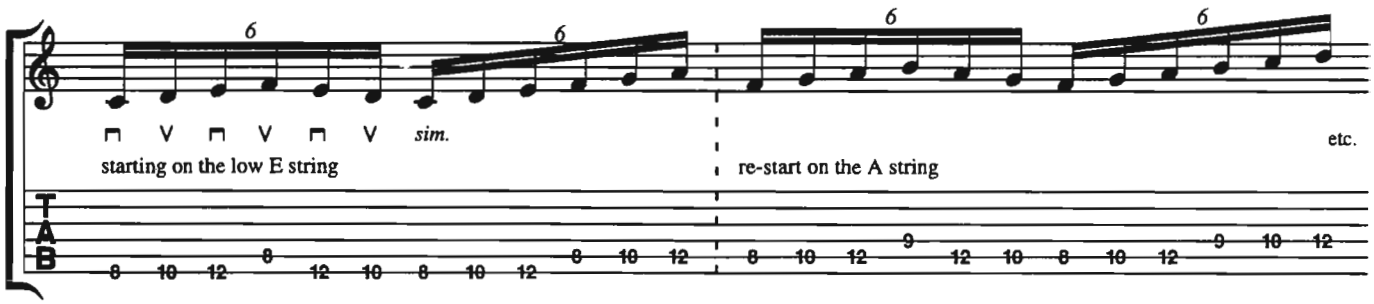
Scale Exercise 2

Open your Scale Glossary to the three-note-per-string patterns, and again, using the circled roots to position the patterns at the correct locations, play all seven patterns in the keys of G, D, A, E and B major.

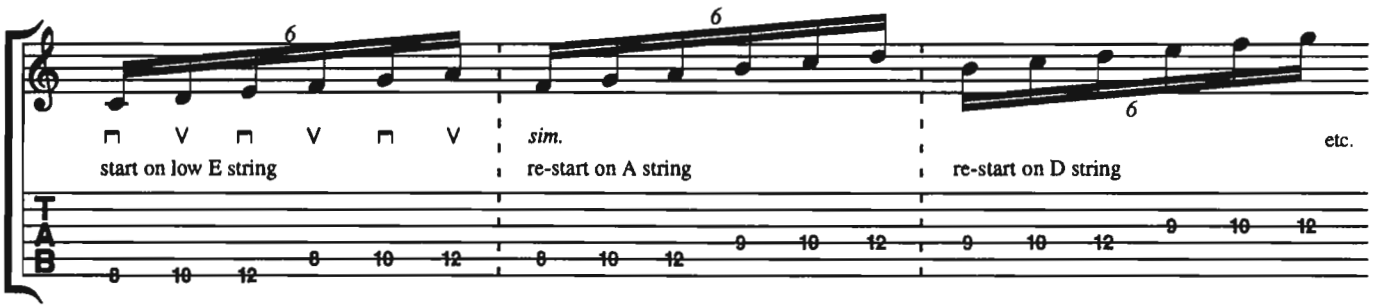
Scale Exercise 2A

Go back through Exercise 1 using these cool 'Paul Gilbert style' sequences. These are designed to be played fast. I recommend using alternate picking, starting with a down stroke:

Sequence 1:



Sequence 2:



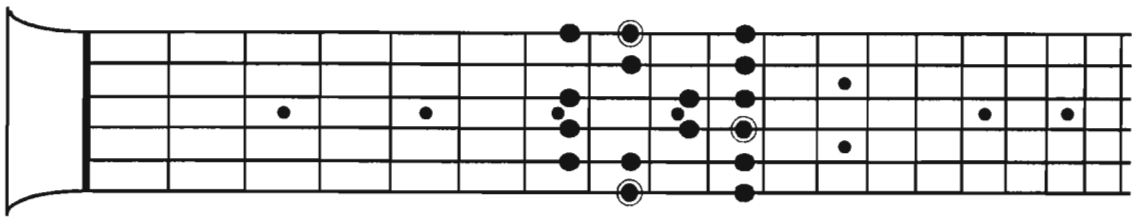
UNIT 3: PENTATONIC SCALES

(Relative Minor)

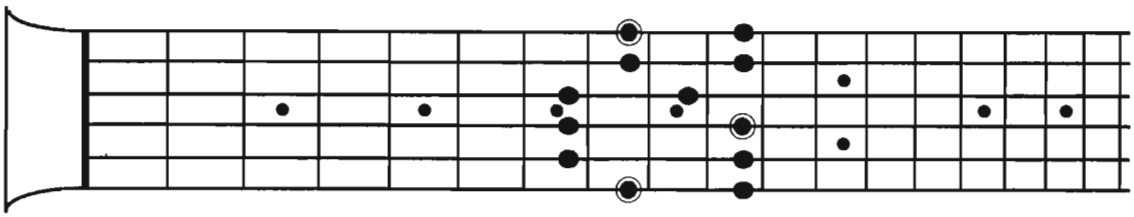
Major Pentatonic

There are two widely used pentatonic scales: Major Pentatonic and Minor Pentatonic. When comparing major pentatonic to the full major scale, we see that the five note major pentatonic is derived from the seven note major scale. The 4th and 7th notes of the major scale are missing from the pentatonic.

The C Major Scale Fingering:



The C Major Pentatonic Fingering:



Since the major pentatonic scale is derived from the major scale, when soloing, you can always substitute the major pentatonic for the full major scale. Because of the two missing notes, the major pentatonic does have a different sound than the major scale.

Exercise 1

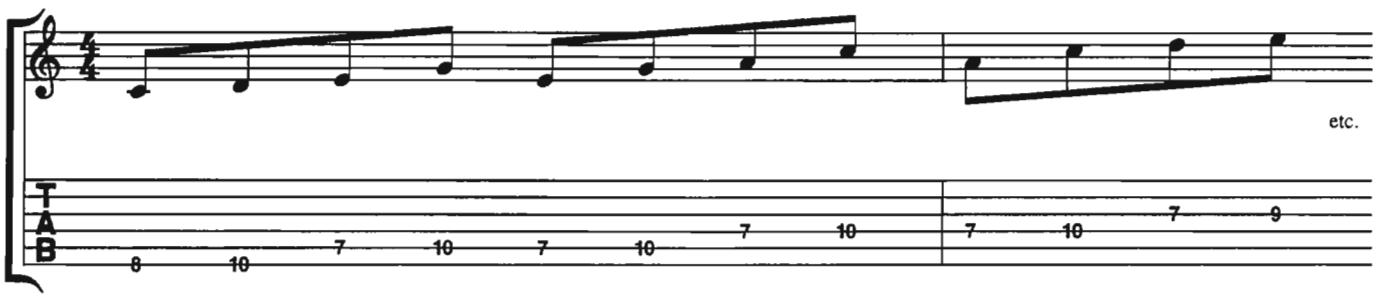
Open to "The Traditional Five Pentatonic Patterns" in your Scale Glossary. Adjust each to the correct root positions for the keys of G, D, A, E and B major.

Again, this may be a lot of work, especially if you don't know the notes on your guitar. But remember, it's important to be able to play in different keys.

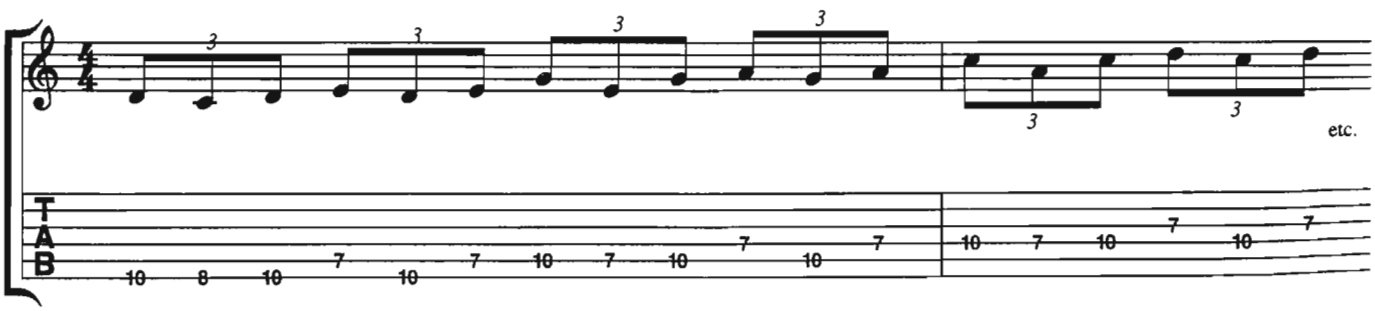
Exercise 1A

Play these two sequences through all five pentatonic scale patterns:

Sequence 1:



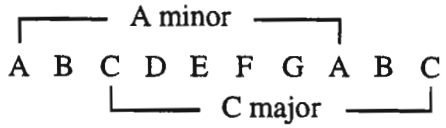
Sequence 2:



Relative Minor

The natural minor scale is actually derived from the major scale. For example, the C major scale contains the same notes as the A minor scale.

Although the C major and A minor scales contain the same notes, when playing in the key of C the music will be centered around the root "C." When playing in the key of A minor, the music will be centered around "A," thus producing two very different types of sounds.



Notice the relative minor starts a step and a half below the root for major.

Every major scale has a relative minor. The relative minor to C major is A minor. To find the relative minor of a major scale: Go down a step and a half from the root of the major scale, that note will be the root of the relative minor.

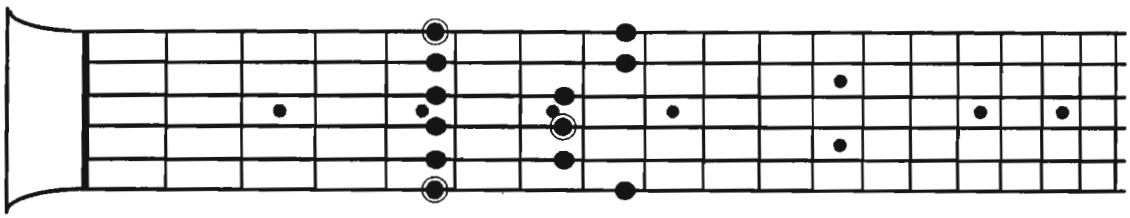
Here is how to use this concept: Play a major scale over a minor chord located a step and a half below the root. For example: Play the C major scale over an A minor chord, the G major scale over an E minor chord, the D major scale over a B minor chord, etc. Even though you're playing the major scale, it sounds like minor... in fact you are playing minor.

In the Scale Glossary, every major and pentatonic scale pattern has two roots indicated. The circled notes indicate the major root notes, and the squared notes indicate the relative minor root notes.

By applying this concept of relative major and minor, you can see that all the fingering patterns for major pentatonic scales can also be applied to the corresponding relative minor.

Minor Pentatonic

Lets try a C major/A minor pentatonic pattern, with "A" now being the lowest note. This will help make it sound more like A minor rather than C major.



Even if you are just starting out playing guitar, this pattern may be very familiar. Often times it's the first scale pattern guitarists learn. Most guitarists could play this in their sleep. The root occurs in three octaves within this pattern.

Exercise 2

Open to the first page of your Scale Glossary. Using the traditional five pentatonic patterns, adjust each of the five patterns to G minor, D minor, A minor, E minor and B minor pentatonic (by locating where the roots are).

Try applying the sequences from Exercise 1 (of course, they are all the same as the major fingering patterns, the root is just in a different place).

Both major and minor pentatonic work very well for blues and traditional rock soloing, and are great for many of the progressions in the "Applied Soloing" part of this program.

You must always be careful when soloing to put any scale patterns into the correct location for the key involved. For instance, in Progression 1 (in the Applied Soloing section), the A minor pentatonic works great, but the A major pentatonic - "in a big way" - does not. Chords will always determine what your scale choices will be.

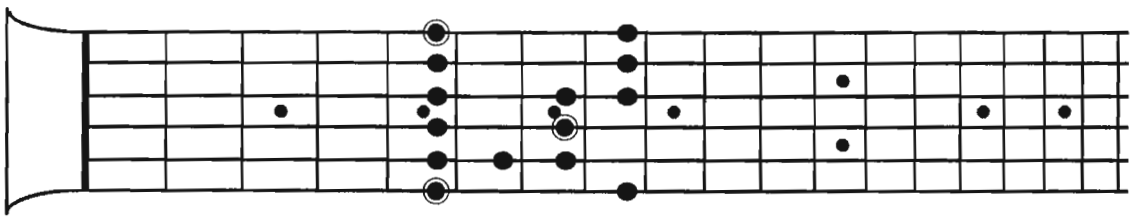
UNIT 4: THE BLUES SCALE

If we add one note to the minor pentatonic scale (the ♭5) we get yet another important scale: **the Blues Scale.**

Historically, this "flat five" interval (written ♭5) was called the "devil's interval." There are stories that in Europe, composers who used this interval too much could actually be tried as a witch.

I'm not sure if this is true, but if it was true, nowadays we'd have a lot of crispy guitar players around. The ♭5 adds dissonance. Blues and rock players use this dissonance to create tension and a generally meaner, nastier sound than the minor pentatonic.

Here is the A minor pentatonic scale with the addition of the ♭5, transforming it into the blues scale.



Remember: Learning scale patterns should be combined with learning vocabulary -- licks and phrases that use the notes from the scale patterns.

Exercise 1

Open to "The Five Traditional Blues Scale Fingering Patterns" in your Scale Glossary. By locating where the roots are, adjust each of the five patterns to G, D, A, E and B blues scales.

UNIT 5: CHORDS AND HARMONY

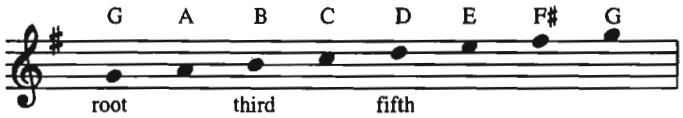
Chord Construction

To know what scales you can play over a given chord, it helps to understand what those chords are and where they come from.

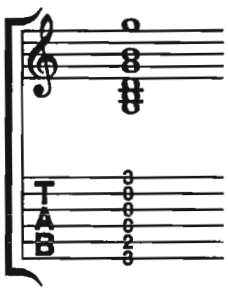
Most chords are actually built from the major scale. This is done using a simple formula: Take a note from the scale, then add notes above it from that same scale in thirds. In other words, stack every other note on top of it!

The G major scale: G A B C D E F♯ G

Let's create a chord from this scale, starting with the root note G. Skipping every other note, we then add B (the 3rd) and D (the 5th). If you play these three notes (G, B and D) at the same time, you are playing a G major triad. Often major triads like this are called by their root name: just "G" or "G major". Chords are that simple!



On the guitar, there are many ways to play those three notes. We often play some notes in two or more places within the same chord, making the chord sound fuller. Look at the following typical guitar "voicing" of a G Major triad. Starting with the lowest pitch, we have: G-B-D-G-B-G; a total of three G's, two B's and one D. Although there are six tones in the chord, there are only three different notes.



Chord Building Exercise

Build a triad from the root of each of the following scales, starting from the root. First write down the three notes in the space provided to the right of the scale notes. Then, figure out some new places you can play those three notes, anywhere on your fretboard, creating your own chord voicings. Go ahead and play notes in more than one octave if you wish. (You may end up with some familiar looking chord shapes!)

Example: E F♯ G♯ A B C♯ D♯ E, E Triad E - G♯ - B

Again, if you don't know the names of the notes on the fretboard, these exercises will be painful and slow.

Sharp Keys:

1)	D	E	F♯	G	A	B	C♯	D,	D triad_____
2)	A	B	C♯	D	E	F♯	G♯	A,	A triad_____
3)	B	C♯	D♯	E	F♯	G♯	A♯	B,	B triad_____
4)	F♯	G♯	A♯	B	C♯	D♯	E♯	F♯,	F♯ triad_____

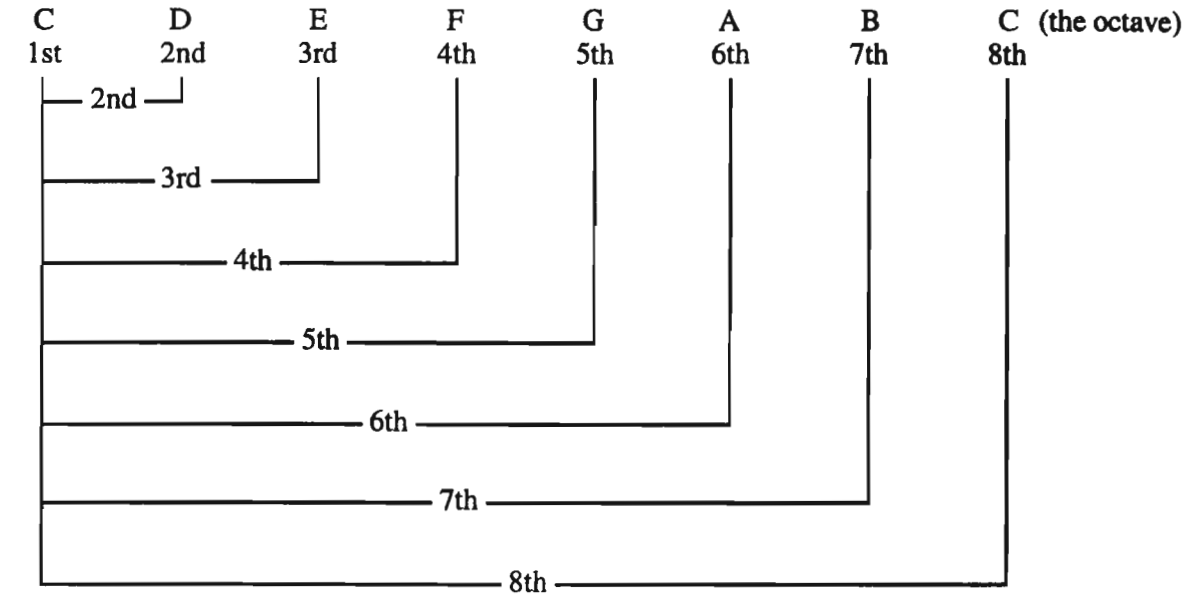
Flat Keys:

1)	F	G	A	B♭	C	D	E	F,	F triad_____
2)	A♭	B♭	C	D♭	E♭	F	G	A♭,	A♭ triad_____
3)	D♭	E♭	F	G♭	A♭	B♭	C	D♭,	D♭ triad_____
4)	B♭	C	D	E♭	F	G	A	B♭,	B♭ triad_____

UNIT 6: INTERVALS

An interval is how we measure the distance between two notes. Basically, we will use the major scale as a "measuring stick."

First, number each major scale step:



Based on the major scale, the distance between the root and the second step is called a 2nd (also a whole step), the distance between the root and third step is a 3rd (two whole steps), and on up to the 4th, 5th, 6th, 7th and 8th -- which is usually called the octave.

These intervals are called: Major 2nd, Major 3rd, Perfect 4th, Perfect 5th, Major 6th and Major 7th.

Besides "major" and "perfect," there are three other interval types: Minor, Diminished, and Augmented.

Minor intervals are a half step less than major:

Major 2nd = 1 Whole Step	Minor 2nd = 1/2 Step
Major 3rd = 2 Whole Steps	Minor 3rd = 1 & 1/2 Step
Major 6th = 4 & 1/2 Steps	Minor 6th = 4 Whole Steps
Major 7th = 5 & 1/2 Steps	Minor 7th = 5 Whole Steps

Diminished intervals are a half step less than perfect:

Perfect 4th = 2 & 1/2 Steps	Diminished 4th = 2 Whole Steps
Perfect 5th = 3 & 1/2 Steps	Diminished 5th = 3 Whole Steps
Perfect 8th = 6 Whole Steps	Diminished 8th = 5 & 1/2 Steps

Augmented intervals are a half step larger than major and perfect:

Major 2nd = 1 Whole Step	Augmented 2nd = 1 & 1/2 Step
Major 3rd = 2 Whole Steps	Augmented 3rd = 2 & 1/2 Steps
Perfect 4th = 2 & 1/2 Steps	Augmented 4th = 3 Whole Steps
Perfect 5th = 3 & 1/2 Steps	Augmented 5th = 4 Whole Steps
Major 6th = 4 & 1/2 Steps	Augmented 6th = 5 Whole Steps
Major 7th = 5 & 1/2 Steps	Augmented 7th = 6 Whole Steps (one octave)

Here is a complete list of the simple (within one octave) intervals, with examples based from C:

STEPS	INTERVAL	EXAMPLE FROM C
0 steps	Unison	C to C
1/2 Step	Minor 2nd	C to D♭
1 Whole Step	Major 2nd	C to D
1 & 1/2 Steps	Minor 3rd (Aug 2nd)	C to E♭ (C to D♯)
2 Whole Steps	Major 3rd (Dim 4th)	C to E (C to F♭)
2 & 1/2 Steps	Perfect 4th	C to F
3 Whole Steps	Aug 4th (Dim 5th)	C to F♯ (C to G♭)
3 & 1/2 Steps	Perfect 5th	C to G
4 Whole Steps	Aug 5th/Minor 6th	C to G♯ (C to A♭)
4 & 1/2 Steps	Major 6th	C to A
5 Whole Steps	Minor 7th/Aug 6th	C to B♭ (C to A♯)
5 & 1/2 Steps	Major 7th	C to B
6 Whole Steps	Perfect 8th	C to C

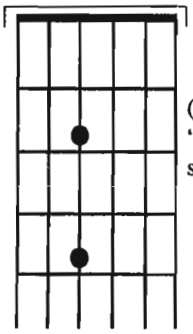
Compound Intervals: Any interval over an octave (8th) is called a compound interval, for example: 9th's, 11th's or 13th's. These, of course, are the same notes as the simple intervals, only displaced one octave.

Intervals on the Guitar

Memorize these shapes! Notice that because of the way the B-string is tuned, it's necessary to adjust the interval shape up a fret when the interval crosses over the B-string.

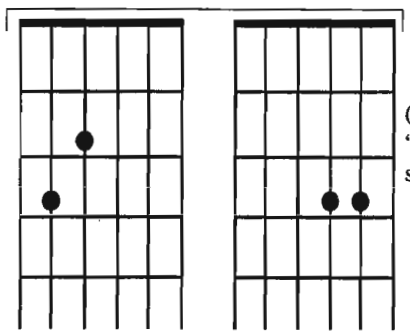
The following intervals are all contained within the major scale.

Major 2nd



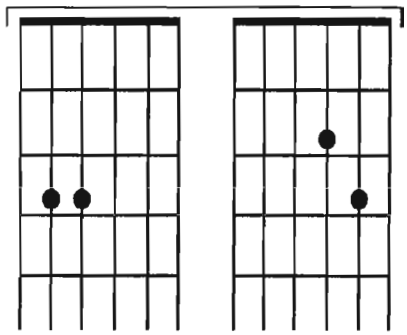
(Also a "whole step")

Major 3rd

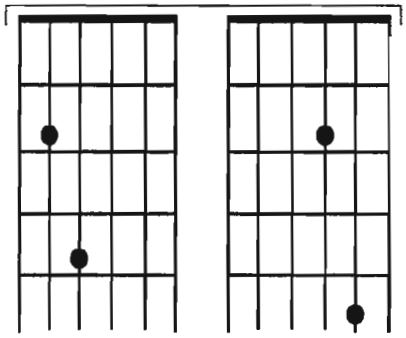


(Also two "whole steps")

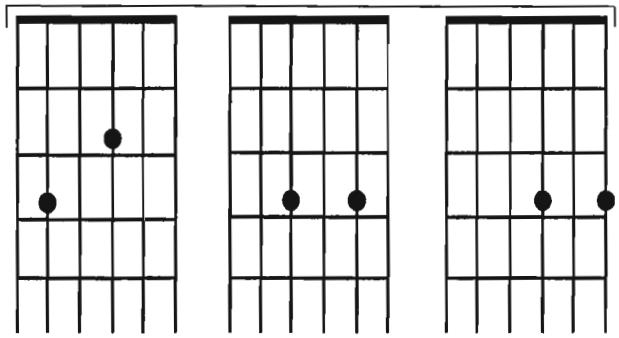
Perfect 4th



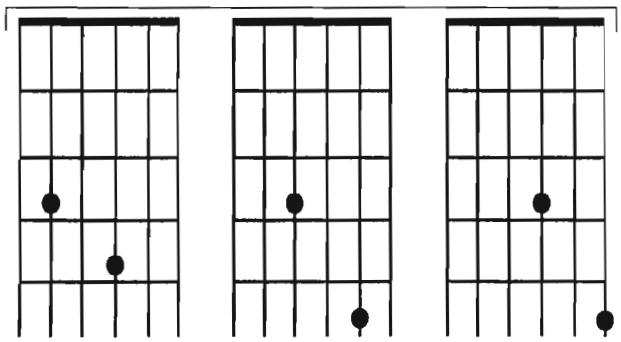
Perfect 5th



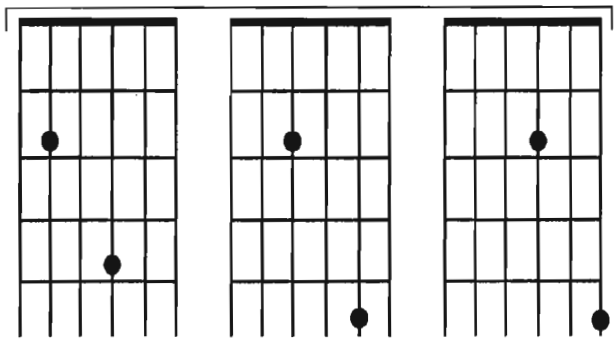
Major 6th



Major 7th

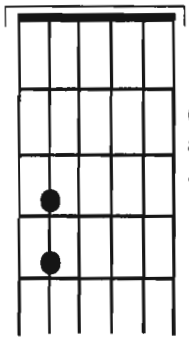


Perfect Octave



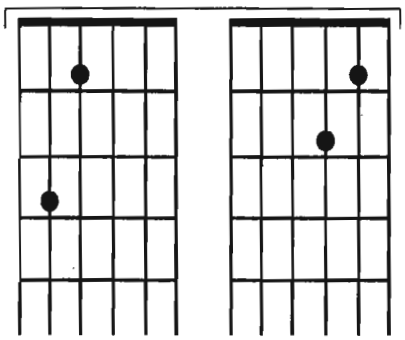
The following intervals are not contained in the major scale. These intervals are derived by lowering the top note of each of the major scale intervals by one half-step (one fret).

Minor 2nd

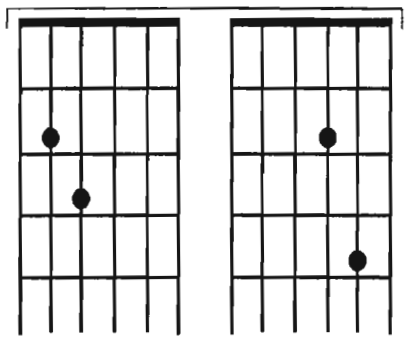


(Also a"half step")

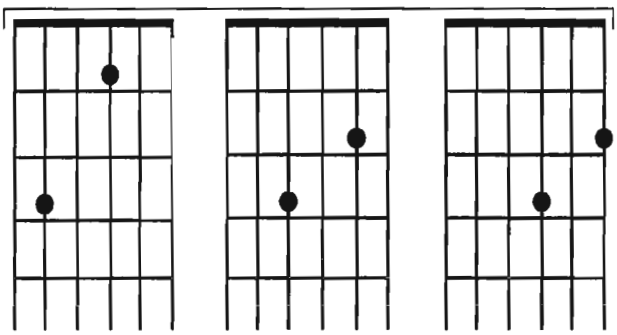
Minor 3rd



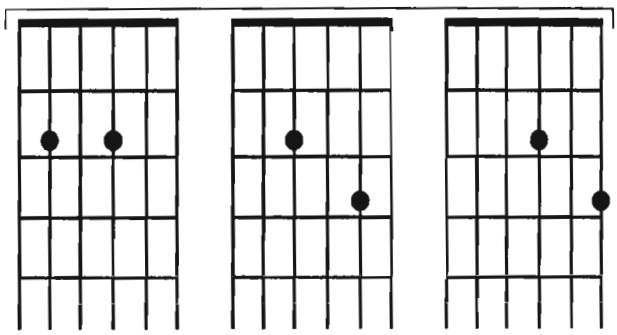
Diminished 5th



Minor 6th

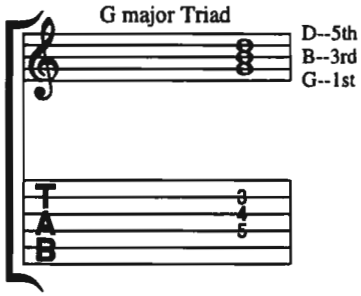


Minor 7th



UNIT 7: MAJOR AND MINOR TRIADS

Triads are three note chords containing a root (1st), 3rd and 5th. The distance between the root and third is very important - it determines the **chord quality** -- major or minor. Notice that in the following G major triad there is a major 3rd between the root and third (G to B), and a minor third between the third and fifth (B to D).



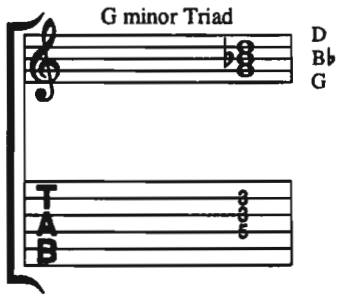
All major triads consist of a major third plus a minor third:

Major Triad = Major 3rd + Minor 3rd

G Major = G B D

maj 3rd (2 whole steps) — min 3rd (1 & 1/2 whole steps)

To make any major chord into a minor chord, simply lower the third a half step. Flatting the third gives us a minor third, changing the chord from major to minor.



A minor triad is the exact opposite of a major triad: a minor third plus a major 3rd:

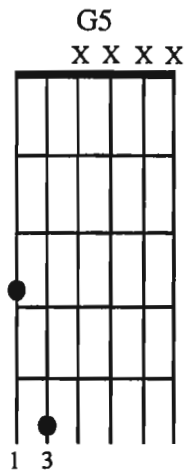
Minor Triad = Minor 3rd + Major 3rd

G Minor = G B♭ D

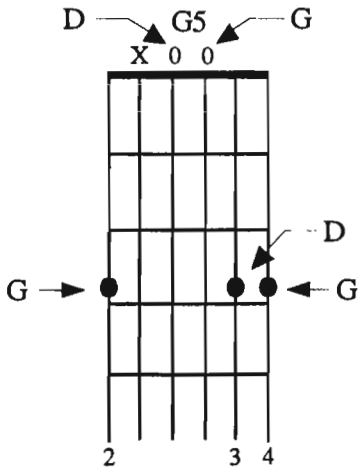
min 3rd (1 & 1/2 steps) — maj 3rd (2 whole steps)

UNIT 8: POWER CHORDS

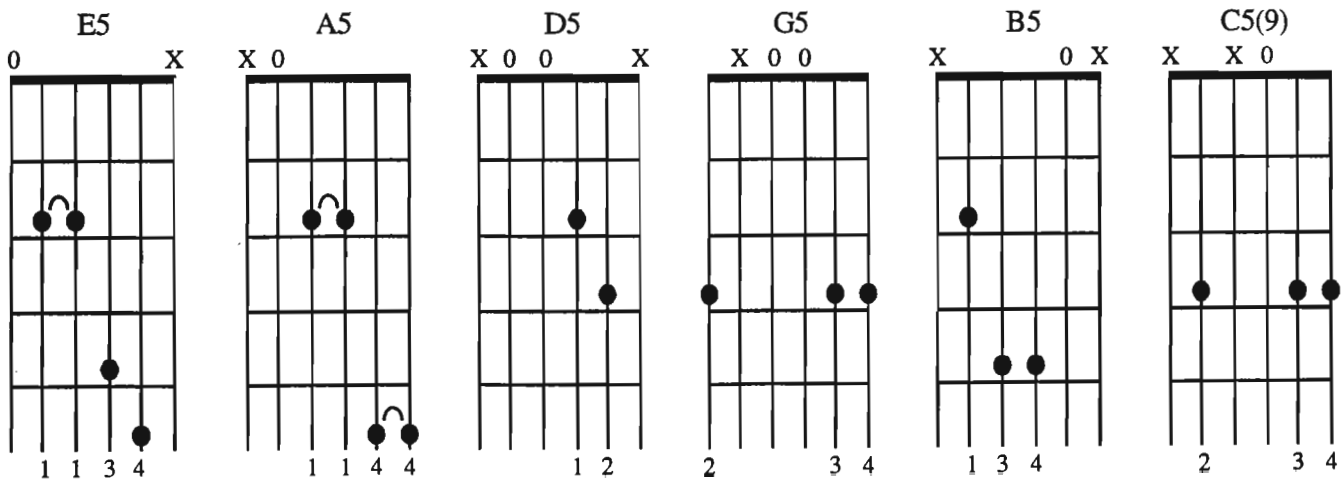
Guitar players who play with a lot of distortion often leave out the third of the chord altogether and just play two notes: the root and the fifth. These kinds of chord voicings are referred to as "Power Chords." A power chord is indicated as a "root 5 chord," as in the case of the G5 power chord below.



These "root & fifth" chords have very few overtones, so they sound real good with distortion. Also, because they have no 3rd, they can be used in place of either major or minor chords. To make the chord sound bigger and fuller, you can "double" the roots and fifth's in more than one place within the chord voicing.



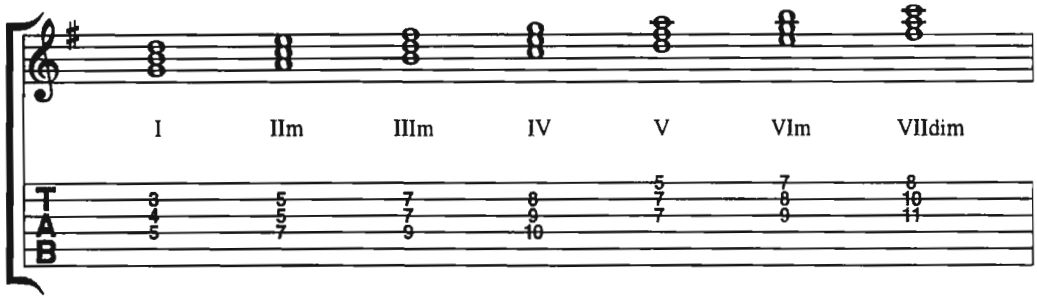
Here are some popular power chord voicings. These big sounding chords sound great with distortion, and work well as "long tones" -- quarter notes, half notes, whole notes or longer.



UNIT 9: BUILDING CHORDS IN A KEY CENTER

(Harmonizing the Scale)

A chord can be built upon every note of the major scale. This is done simply by building a triad from every scale tone, using only notes from the scale. Shown below is a harmonized G major scale. Notice that the seven notes of the scale are numbered with Roman numerals.



Analysis

If we analyze each triad, we can see that the I, IV, and V chords are major triads (a major 3rd plus a minor 3rd), and the II, III, and VI chords are minor (a minor 3rd plus a major 3rd). The VII chord is a diminished triad: minor 3rd plus a minor 3rd. (You may want to review Unit 7.)

The I chord:	G major,	G-B-D	(maj 3rd + min 3rd)
The IIm chord:	A minor,	A-C-E	(min 3rd + maj 3rd)
The IIIm chord:	B minor,	B-D-F♯	(min 3rd + maj 3rd)
The IV chord:	C major,	C-E-G	(maj 3rd + min 3rd)
The V chord:	D major,	D-F♯-A	(maj 3rd + min 3rd)
The VIm chord:	E minor,	E-G-B	(min 3rd + maj 3rd)
The VIIdim chord:	F♯ dim,	F♯-A-C	(min 3rd + min 3rd)

Exercise: Write out the notes in each chord of the harmonized D major scale. Indicate which are major, minor, or diminished.

D major scale notes:
D-E-F♯-G-A-B-C♯-D-E-F♯-G-A-B, etc.

I chord_____

II chord_____

III chord_____

IV chord_____

V chord_____

VI chord_____

VII chord_____

As you can see from this exercise, in any major scale (or key) we always have the same sequence of chord qualities. It is very important to memorize this sequence:

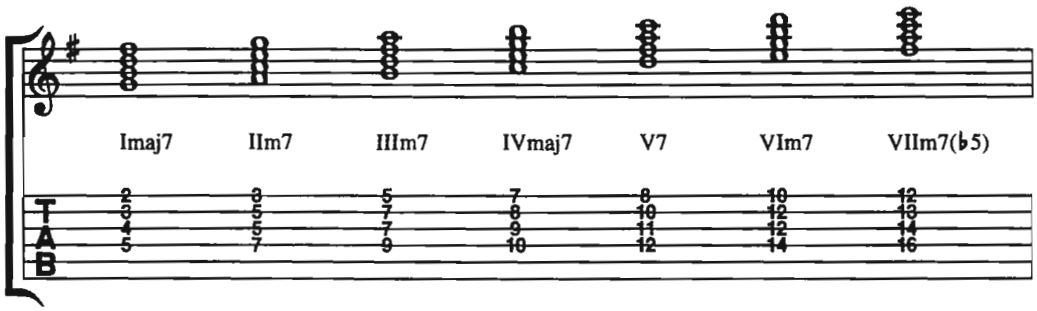
I	II	III	IV	V	VI	VII
Major	Minor	Minor	Major	Major	Minor	Dim.

UNIT 10: DIATONIC 7TH CHORDS

"Diatonic" refers to notes, chords and melodies based completely in the major scale. Example: The chord progression G - Em - Am - D is diatonic to the key of G. Whereas G - E - A - D contains two chords (E and A) that contain notes not found in the G major scale. The chords in the harmonized G major scale are diatonic to the key of G.

So far, the only chords we have dealt with are triads. We can also build diatonic chords with more than three notes. To build a four note chord, we add every third note (just like triads): the root, 3rd, 5th, and 7th. These four note chords are called **seventh chords.**

Remember, with diatonic triads we had only three basic types: "major", "minor", and "diminished" (augmented is a fourth type of triad spelled: 1-3-♯5, but it is not diatonic to a major scale). With diatonic seventh chords, there are four types: Major 7th, Dominant 7th, Minor 7th, and Minor 7(♭5). Note: The Minor 7(♭5) is sometimes also called "half diminished".



Here's the order of these diatonic 7th chords, when built from the major scale, compared with triads:

TRIAD NAME	SEVENTH CHORD	NOTE EXAMPLE	INTERVALS (TRIAD + 3RD)
I: Major	Major 7	G-B-D-F♯	Major + maj 3rd
II: Minor	Minor 7	A-C-E-G	Minor + min 3rd
III: Minor	Minor 7	B-D-F♯-A	Minor + min 3rd
IV: Major	Major 7	C-E-G-B	Major + maj 3rd
V: Major	Dominant 7	D-F♯-A-C	Major + min 3rd
VI: Minor	Minor 7	E-G-B-D	Minor + min 3rd
VII: Dim	Minor 7(♭5)	F♯-A-C-E	Dim + min 3rd

Lets look at the intervals in these 7th chords, so we can understand them:

Major 7 Chord: Root, major 3rd and perfect 5th, just like a major triad, then add a major 7th on top.

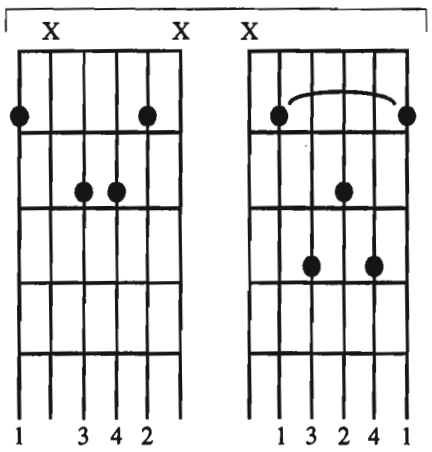
Dominant 7 Chord: Root, major 3rd and perfect 5th, just like a major triad again, but now on top we have a minor 7th. (Musicians often don't use the word dominant when labeling these chords, we usually refer to them as just "root 7th", for example: G7 or A7.)

Minor 7th Chord: This one has a root, minor 3rd and 5th, like a minor triad, but on top we have a minor 7th.

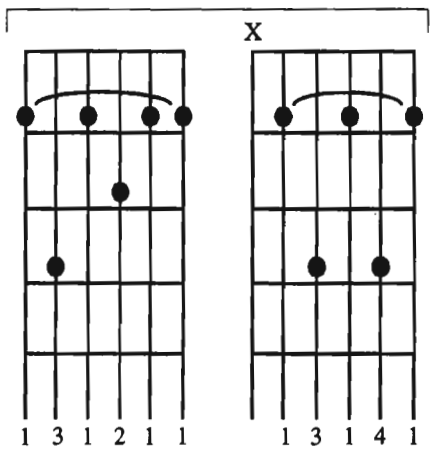
Minor 7(♭5) Chord: Root, minor 3rd and diminished 5th (or ♭5), just like a diminished triad, but on top we have a minor 7th.

Here are two standard chord voicings for each of these four seventh chord types; one with the root on the "E-string" and one with the root on the "A-string".

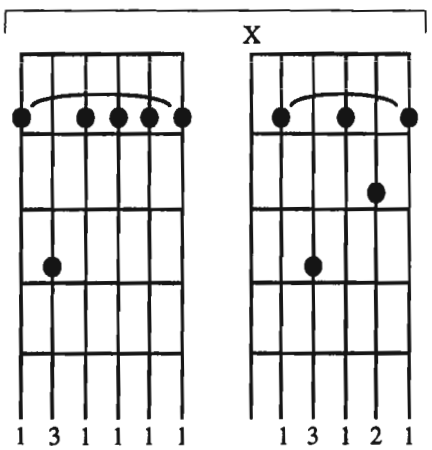
Major 7



Dominant 7



Minor 7



Minor 7(♭5)