Introduction To Rhythm

There are 2 basic elements to music:

1. Pitch
2. Rhythm

Pitch is the sound that a note makes. Not all musical instruments make notes with a clear pitch; percussion instruments are often distinguished by whether they do or do not have a particular pitch. A sound or note of definite pitch is one of which it is possible or relatively easy to discern the pitch. Sounds with definite pitch have harmonic frequency spectra or close to harmonic spectra.

A sound or note of indefinite pitch is one of which it is impossible or relatively difficult to discern a pitch. Sounds with indefinite pitch do not have harmonic spectra or have altered harmonic spectra. It is still possible for two sounds of indefinite pitch to clearly be higher or lower than one another, for instance, a snare drum invariably sounds higher in pitch than a bass drum, though both have indefinite pitch, because its sound contains higher frequencies.

In other words, it is possible and often easy to roughly discern the relative pitches of two sounds of indefinite pitch, but any given sound of indefinite pitch does not neatly correspond to a given definite pitch. A special type of pitch often occurs in free nature when the sound of a sound source reaches the ear of an observer directly and also after being reflected against a sound-reflecting surface. This phenomenon is called repetition pitch, because the addition of a true repetition of the original sound to itself is the basic prerequisite.

Rhythm is the duration of time that the note is sounded or a variation of the length and accentuation of a series of sounds or other events. Standard music notation contains rhythmic information and is adapted specifically for drums and percussion instruments. The drums are generally used to keep other instruments in 'time'. They do this by supplying beats/strikes in time at a certain pace, i.e. 70 beats per minute (bpm). In Rock music, a drum beat is used to keep a bass/guitar line in time. In Western music, rhythms are usually arranged with respect to a time signature, partially signifying a meter. The speed of the underlying pulse is sometimes called the beat. The tempo is a measure of how quickly the pulse repeats.

The tempo is usually measured in 'beats per minute' (bpm); 60 bpm means a speed of one beat per second. The length of the meter, or metric unit (usually corresponding with measure length), is usually grouped into either two or three beats, being called duple meter and triple meter, respectively. If each beat is divided by two or four, it is simple meter, if by three (or six) compound meter. According to Pierre Boulez, beat structures beyond four are "simply not natural". His reference is to western European music.

Syncopated rhythms are rhythms that accent parts of the beat not already stressed by counting. Playing simultaneous rhythms in more than one time signature is called **polymeter** or **polyrhythm.**

Polymeter/Polyrhythm

Although sometimes used synonymously, polymeter is the use of two metric frameworks (time

signatures) simultaneously, while polyrhythm refers to the simultaneous use of two or more different patterns, which may be in the same time-signature.

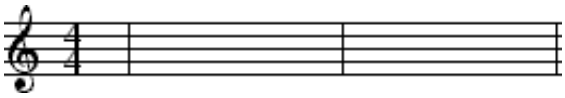
Research into the perception of polymeter shows that listeners often either extract a composite pattern that is fitted to a metric framework, or focus on one rhythmic stream while treating others as "noise". This is consistent with the Gestalt psychology tenet that "the figure-ground dichotomy is fundamental to all perception".

In "Toads Of The Short Forest" (from the album Weasels Ripped My Flesh), composer Frank Zappa explains: "At this very moment on stage we have drummer A playing in 7/8, drummer B playing in 3/4, the bass playing in 3/4, the organ playing in 5/8, the tambourine playing in 3/4, and the alto sax blowing his notes" (Mothers of Invention 1970). "Touch And Go", a hit single by The Cars, has polymetric verses, with the drums and bass playing in 5/4, while the guitar, synthesizer, and vocals are in 4/4 (the choruses are entirely in 4/4) (The Cars 1981, 15).

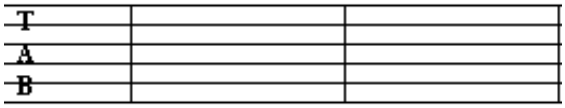
Measures

When writing music down on paper for other musicians to play the music is divided into what is called **measures**. The measures are divided with vertical lines. The lines that musical notes are placed on are called **staffs**.

Can you see the vertical lines in the music staff below?



Same thing here in this tablature staff:

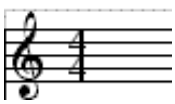


Note: The funny looking symbol at the far left is a treble clef. This is just signifying that the music staff is for a treble clef instrument (which the guitar is), but it is of no concern to us at this point. We'll talk about the two 4s stacked on top of each other right next to the treble clef next.

Standard Time

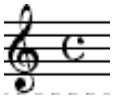
Each measure must be assigned a set number of beats. The number of beats that a measure gets is called the **time signature**. There are all sorts of time signatures. At this point we're only going to concentrate on learning about one time signature. It is called 4/4 time. That's what the two 4's stacked on top of each other in the music staff represent.

Take a look again:



4/4 time means that each measure will get 4 beats. This is the most commonly used time signature in music. 4/4 time is also called **common time** or **standard time**.

Sometimes it is represented with a "C" (C for common) symbol on a music staff instead of two 4s stacked on top of each other:



Most musicians will just say "standard time".

Tempo

The **tempo** is how fast or slow the song is. It is measured by beats per minute (bpm). 60 bpm is a slow tempo.

130 bpm is moderately fast. 160 bpm is fast.

Chord Foundation

Video Reference: Chapter 1 - "Chord Foundation"

There is an easy way to learn chords and there is a hard way to learn chords. We hope that you will see it our way and take the easy path presented in this section. Not only will you learn hundreds of chords quickly, but you will have a better understanding of how chords work.

Chords are 3 notes played at the same time. There are all types of chords. The most common chord is the major chord. Minor chords and Dominant 7th chords are used quite often as well. Some of them may have strange sounding names at first, but don't let the name scare you.

Knowing a little about key signatures and intervals will go a long way when learning chords.

Remember to take your time when learning chords.

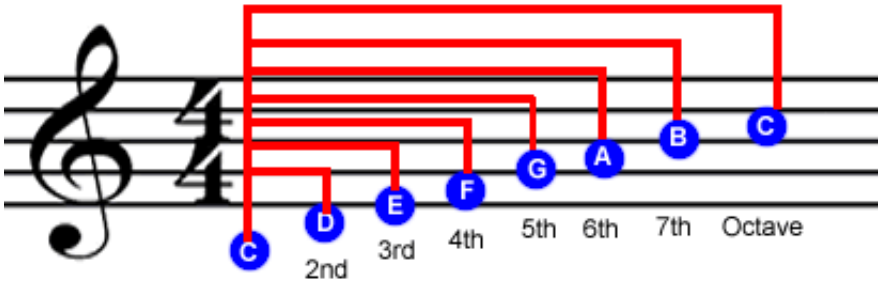
How Chords Are Formed

This article is a more 'representative' version of how chords are built. What I mean by this is that I've removed all the absolute basic information that you should already know and have supplied you with more literal definitions of the many chords we will be working with and how they are formed.

Intervals

Chords are built from *intervals*. An interval is **the distance between two notes**, measured by the number of letter names between them, including the names of the two notes themselves.

The following example, a C Major Scale, identifies the intervals from the bottom C:



Half and Whole Steps

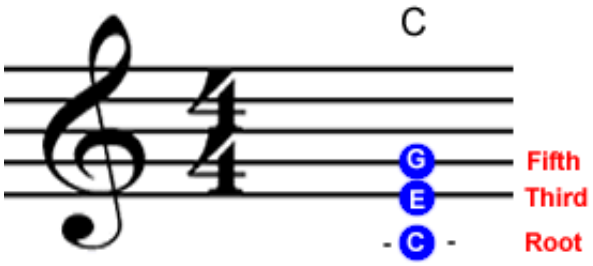
The most important intervals to understand are the 'half step'' (minor second) and the 'whole step' (major second). A half step (HS) is the distance from one fret to the next on the guitar, or from one key on the keyboard to the next closest key (including black keys). A whole step (WS) is two half steps.

WS		WS		HS	WS		WS		WS		HS
1	2	3	4	5	6	7	8	9	10	11	12

Triads

The most basic chords have three notes in them. They're called triads. The first note is the root. As it's name suggests, this note forms the bottom of the chord. For example, let's start with C as a root. Next comes the third, which lies an interval of a third above the root. For a C chord, that would be the note E. Finally, there's the fifth, which lies a fifth above the root. For the C chord, the fifth is the note G.

Here's the completed chord:



Now, this is how chords are built in theory; this is how to figure out what notes a chord contains. But it's not necessarily how the chords are played.

Major and Minor

The notes C-E-G spelll a C Major chord. The symbol for this chord is simply the name of the root note - C. It's called a major chord because the third C-E is a major third, which equals two whole steps. If the third is lowered a half step, to Eb, it becomes a minor third (one and a half steps). The resulting chord, C-Eb-G is called a C minor chord. The chord symbol is Cm. Sometimes instead of a third, a chord has a fourth - technically called a perfect fourth (two and a half steps). For a C chord, it would be spelled C-F-G. The chord symbol is Csus4, or just Csus, because the fourth functions as a suspension, a dissonant note, that tends to resolve downward to a third. Guitarists often play 'power chords' which consist of just the root and fifth - with no third or fourth. Although it's fewer than three notes, it's still basically considered a chord (Sort of.) The symbol here would be C5, or C (no 3rd).

The fifth of the chord, by the way, is technically called a perfect fifth (three and half steps). It's presence in the chord is assumed, so it doesn't appear in the chord symbol unless it is altered - lowered or raised a half step - in which case you'll usually see b5 or #5 in the symbol. For example: C(b5) is a C major chord with the fifth lowered a half step.

Sometimes a lowered or raised fifth entitles a chord to a new name and symbol. (As in 'augmented and diminished').

Sixths and Sevenths

The triad is the foundation of all other chords. Other chords consist of mostly notes added to the triad. Adding a sixth above the root (a whole step above the fifth) creates what is called a sixth chord. For example: add the sixth, A to C chord, and you get a C sixth chord (symbol: C6). Add the sixth to a C minor chord and you get C minor sixth (symbol: Cm6).

The seventh is the most common addition to triads. The normal seventh above the C is not B, as you might expect, but Bb 0 sometimes called a flat seventh. It's a whole step lower than an octave. Add this to a C chord and you get C seventh - C7. Add it to C minor and you get C minor seventh - Cm7. Add it to a sus4 chord and you get C7sus4.

The note B above a C root is called a major seventh. Add it to a C chord and you get C major seventh - or Cmaj7. Add it to a C minor chord and you get C mino, major seventh - Cm(maj7).

Augmented and Diminished

A couple of chords have their own names, symbols, and rules. The first is the augmented chord, which is a traid with a major third and a sharp fifth. Common symbols are C+, Caug, and C(#5).

Second is the diminished seventh chord (often called simply a diminished chord) which has a minor third, a flat fifth, and a diminished seventh - a seventh that is lowered a half step from the normal (flat) seventh. Common symbols are Cdim7, Cdim, C (with a degree sign), and C (with a degree sign)7. The diminished seventh of this chord is enharmonically equivalent to a sixth - the same note, spelled differently.

Augmented and diminished chords are unusual because the notes are equidistant from one another. Each note is an augmented chord is a major third from the next. Each note in a diminished seventh chord is a minor third from the next. This means that in either of these chords, any note can function as the root.

If you add or change any notes in these chords, you change their names and symbols as well. Take an augmented chord and add a seventh, and its symbol becomes C7#5. Change a diminished seventh chord so it has a 'normal' seventh, and you get Cm7b5 *infrequently called a half-diminished chord, with the symbol C(with degree sign and a slash through it.)

Ninths

Most chords are made up of odd-numbered intervals: root (= first) third, fifth, seventh, ...

This keeps going through ninth, eleventh, and thirteenth. The most common of these larger intervals is the ninth, which is a whole step larger than an octave.

A ninth chord, C9, Cm9, C9sus4, actually contains not only the ninth, but the seventh as well. A major ninth chord (Cmaj9) contains the ninth and the major seventh.

Sometimes there are more notes in thise chords than one hand can reach, so some notes are omitted. For guitar, the fifth is sometimes left out.

Ninths are sometimes lowered or raised by a half step, and this is spelled out in the chord symbol C7b9, C7#9.

A chord with only the ninth, and no seventh, is called an added ninth chord. The most common is the major triad with added ninth - C(add9) - but you may into the minor version as well - Cm(add9).

A major triad with a sixth and a ninth added is a six-nine chord - C6/9.

Slash Chords and N.C.

Sometimes a chord symbol ends with a slash, and an extra letter, like this: C/G. This is used to specify a bass note other than the root of the chord. The example here means "a C chord with the note G in the bass."

Often, these bass notes are the tones of the chord, such as a third, fifth, or a seventh, though they maybe notes 'outside' the chord instead.

You might also see the symbol N.C.

This is an abbreviation for 'no chord.' It means what it says: don't play a chord - until you arrive at the next chord symbol. Sometimes the words 'no chord' are written out, and sometimes the Latin word 'tacet' is used, which means the same thing.

Other Chords

This site does NOT contain every possible chord, and I'm not sure that ANYTHING in a book or on the web does. If you run across a chord symbol that isn't spelled out as I've informed you about, I've got a solution.

Most of the additional chords you'll run across are actually seventh chords with an added note or two. Leave out the added notes (chances are they appear in the melody anyway) and play the basic version of this chord. The list below tells you which chords to use for a few examples:

If You See...	Play...
C7b9, C7#9, C7#11, C13	C7
C7#5(b9), C7#5(#9)	C7#5
C9sus4, C9sus, C11	C7sus4 (C7sus)
Cmaj7#11	Cmaj7
Cm11	Cm9

Neat huh?

Chord Formulas

As a general rule: major chords can be substituted with anything in the "major" table. And minor chords can be substituted with anything in the "minor" table. Keep in mind that substitutions should only be used sparingly unless you really want to jazz it up. Let your ear be your guide!

Then there's the Dominant 7th chords which are called "dominant" because they are a common substitution for the dominant chord in a song. The dominant chord being the 5th of the tonic (in other words the 1st chord which is the key signature).

Major

Major Chord	R	3	5				
M6	R	3	5	6			
6/9	R	3	5	6	9		
M7	R	3	5	7			
M9	R	3	5	7	9		
M11	R	3	5	7	9	11	
M13	R	3	5	7	9	11	13
M7#11	R	3	5	7		#11	

Minor

minor Chord	R	Flat 3	5				
m6	R	Flat 3	5	6			
m 6/9	R	Flat 3	5	6	9		
m7	R	Flat 3	5	Flat 7			
m9	R	Flat 3	5	Flat 7	9		
m 11	R	Flat 3	5	Flat 7	9	11	
m13	R	Flat 3	5	Flat 7	9	11	13
m7/b5	R	Flat 3	Flat 5	Flat 7			
m/maj.7	R	Flat 3	5	7			
m/maj.9	R	Flat 3	5	7	9		

Dominant 7th

Dominant 7th	R	3	5	Flat 7			
9	R	3	5	Flat 7	9		
11	R	3	5	Flat 7	9	11	
13	R	3	5	Flat 7	9	11	13
7#5	R	3	#5	Flat 7			
7b5	R	3	Flat 5	Flat 7			
7b9	R	3	5	Flat 7	Flat9		
9#5	R	3	#5	Flat 7	9		
9b5	R	3	Flat 5	Flat 7	9		
7#5#9	R	3	#5	Flat 7	#9		
7#5b9	R	3	#5	Flat 7	Flat 9		
7b5#9	R	3	Flat 5	Flat 7	#9		

7b5b9	R	3	Flat 5	Flat 7	Flat 9		

Chord Symbols

These chord symbols are almost always a 'tried-and-true' standard for how you see chords listed on tablature, in chord diagrams, and more. Since there are always a few textual variations, we've included all of the common terms used for chord symbols.

Chord	**Symbol**
C Major	C, CM, CMaj.
C minor	Cm, C-, Cmin., C mi
C diminished	C dim.
C Augmented	C+, Caug.
C suspended	Csus., Csus.4
C Dominant 7th	C7, CDom.7
C Major 7th	CM7, CMaj7, Cmaj7, C7
C minor 7th	Cm7, Cmin. 7, C-7
C Dominant 9th	C9, Cdom. 9th
C Major 9th	CM9, Cmaj. 9, C9
C minor 9th	Cm9, C-9, Cmin.9
C eleventh	C11, Csus.4
C minor eleventh	Cm11, C-11
C Major Eleventh	CM11, CMaj.11
C Major add 6	C6, CM6, Cadd6
C minor add 6	Cm6, Cmin.6, C-6
C add 6th + 9th	C 6/9
C minor add 6th + 9th	Cm 6/9
C 13th	C 13

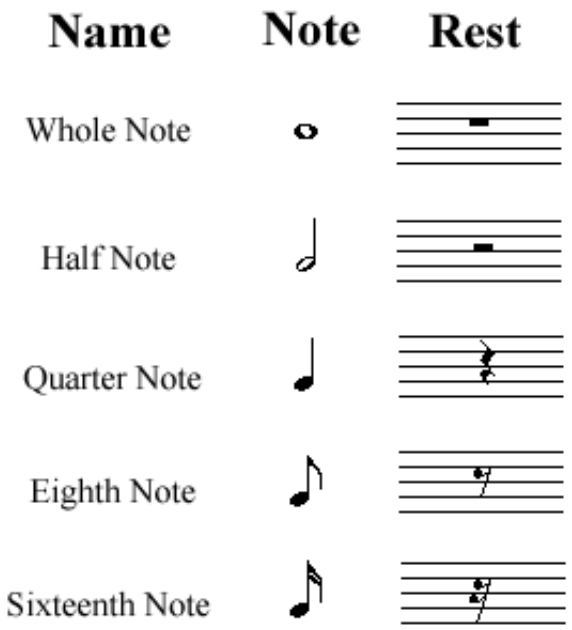
C minor 13th	Cm 13
C Major 13th	CM13, C Maj.13

Note Values

Video Reference: Chapter 1 - "Note Values"

In music notation, a note value indicates the relative duration of a note, using the color or shape of the note head, the presence or absence of a stem, and the presence or absence of flags/beams/hooks.

A rest indicates a silence of an equivalent duration.



The Whole Note

Its length is typically equal to four beats in 4/4 time. Most other notes divide the whole note; half notes are played for one half the duration of the whole note, quarter notes are each played for one quarter the duration, etc. A whole note lasts half as long as a double whole note.

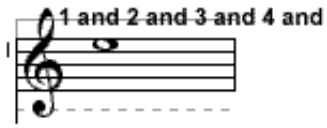
It looks like this:

This is actually the easiest one to play.

All you have to do is strum the chord once, and wait for three beats. Strum the chord again, and

wait for three beats.

A Whole Note equals 4 beats:



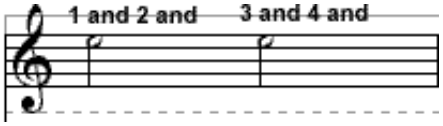
A Whole Rest would look like this (same value, but instead of playing it, you rest for that duration):

The Half Note

A half note is a note played for twice the duration of a quarter note. In time signatures with a demoninator of 4, such as 4/4 or 3/4 time, the half note is two beats long.

It looks like this: 

You can think of the half note as dividing the whole note into two. This means you're playing a given note or chord twice for every one time you play a whole note.



A Half Rest would look like this (same value, but instead of playing it, you rest for that duration):

The Quarter Note

A quarter note is a note that represents the duration of one beat. In other words it gets one beat.

It looks like this: 

You remember that I told you that a song in standard (4/4) time gets 4 beats per measure, right? That would mean that the song it would get 4 quarter notes per measure, because a quarter note

gets one beat. That's why it's called a quarter note. There are 4 quarters in a whole. For example, a dollar bill can be divided up into 4 quarters. (.25 + .25 + .25 + .25 = $1.00)

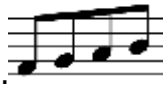
A Quarter Rest would look like this (same value, but instead of playing it, you rest for that duration):

The Eighth Note

An eighth note is a note played for one eighth the duration of a whole note, hence the name. As with all notes with stems, the general rule is that eighth notes are drawn with stems to the right of the notehead, facing up, when they are below the middle line of the musical staff.

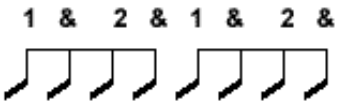
It looks like this: 

When they are on or above the middle line, they are drawn with stems on the left of the note head, facing down.

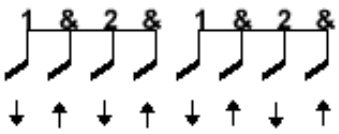
Flags are always on the right side of the stem, and curve to the right. On stems facing up, the flag starts at the top and curves down; for downward facing stems, the flags start at the bottom of the stem and curve up. When multiple eighth notes or sixteenth notes (or thirty-second notes, etc.) are next to each other, the stems may be connected with a beam rather than a flag. 

We can count eight notes along with a beat like this: Tap a steady rhythm on table. Each time your hand his the table is a beat. Each beat gets two eight notes, so each time your hand hits the table is a "1" or "2". Each time your hand comes up is the "and".

See the example:



You'll want to strum them in a down up down up pattern like so (and vice versa):

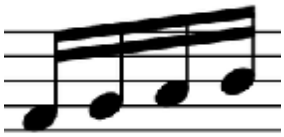


An Eighth Rest would look like this (same value, but instead of playing it, you rest for that duration):

The Sixteenth Note

The easiest way to explain sixteenth notes is by using what we already know from the eighth note. This is LITERALLY doubled up.

Sixteenth notes are notated with an oval, filled-in note head and a straight note stem with two flags.



As you can see, it looks just like the eighth note, only with double beams that connect. A sixteenth note by itself would look like this:

A Sixteenth Rest would look like this (same value, but instead of playing it, you rest for that duration):

Open Chords

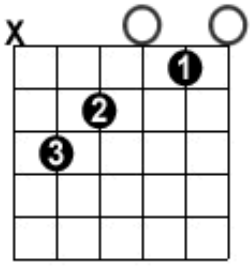
Video Reference: Chapter 1 - "Open Chords"

Without getting into too much theory here, we're presenting you with the ONLY 5 Major and Minor Chords you need to be concerned with. They are:

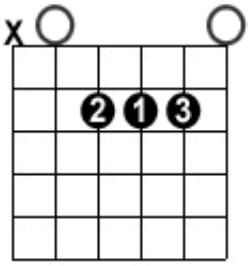
C-A-G-E-D (Major Chords)

Learn and memorize each CAGED Major Chord pattern presented below:

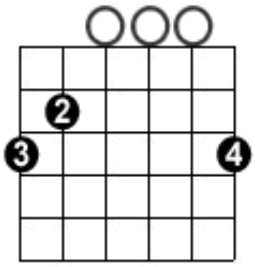
C



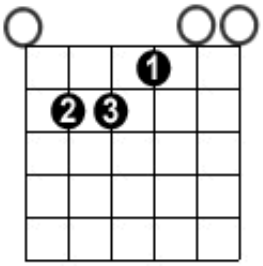
A



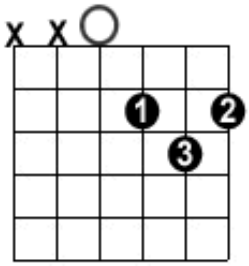
G



E



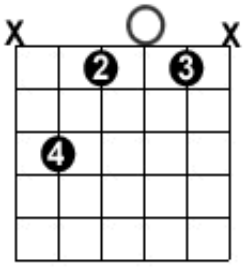
D



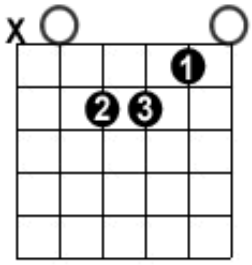
Cm-Am-Gm-Em-Dm (Minor Chords)

Minor chords are noted by using a variation of methods, but usually it's with a lowercase 'm.' They are simply the minor versions of the Major chord counterparts.

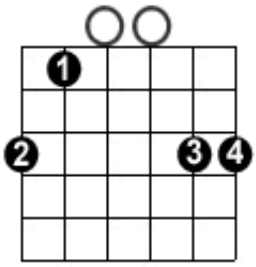
C Minor (Cm)



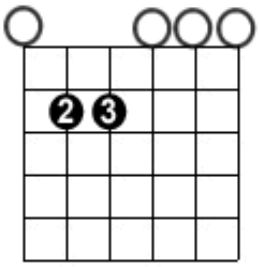
A Minor (Am)



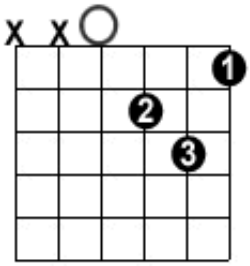
G Minor (Gm)



E Minor (Em)

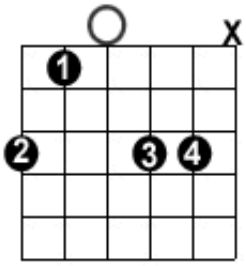


D Minor (Dm)

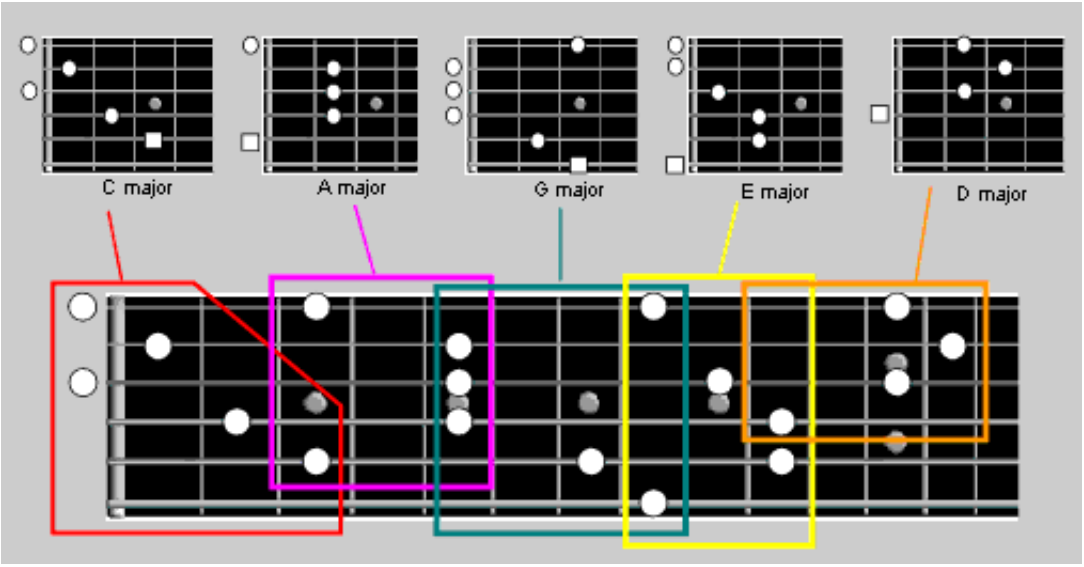


Alternate Fingerings

G Minor (Gm)



CAGED Patterns

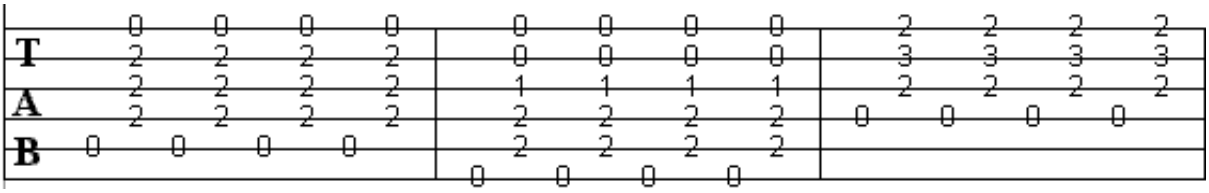


Rhythm Techniques

Simply strumming chords to a song can get quite boring rather quickly.

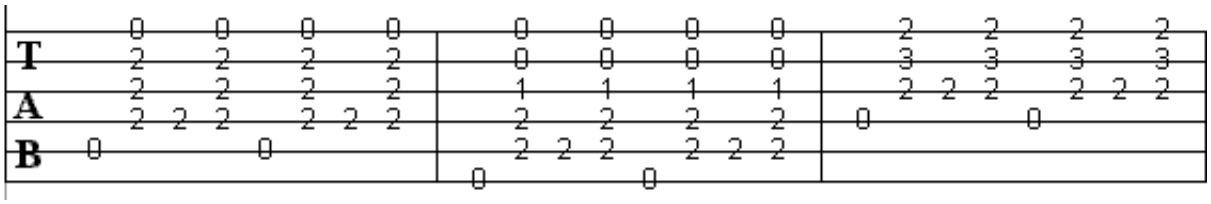
Here we are going to alternate between a bass line and the chord voicings to create a more interesting sonic landscape from some of the basic chord forms that you already know.

In the first example we're simply going to play the root note of the chord and then play the rest of the chord. It's a simple A-E-D chord progression:



In the first measure of the tablature above, the A has the root on the A string. In the second measure. the E chord has the E string as the root. The same applies to the third measure, where the D string is the root of the D chord.

Now we're going to take the same progression a step further to create a more intricate bass line:

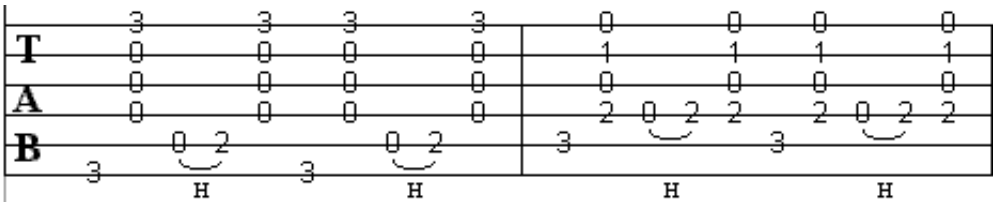


Here we still have the roots played in a 'boom chuck' fashion, but we've added the lowest notes being played in each chord instead of our open-string phrasings.

You can create passages like the two examples above with any chords that you want.

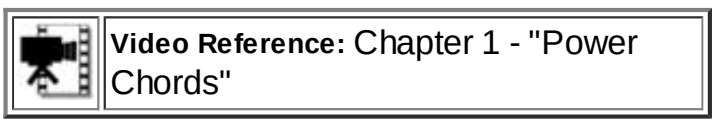
The example below is a G-C chord progression. It's similar to the last example except it includes the hammer-ons.

Pretty cool!



This could be a song in itself! All you have done is apply everything you played above and made the song more instrumental instead of just playing basic chords.

What Are Power Chords?



Introducing power chords are basically an easier way to simplify the concept of barre chords, which we will be focusing on next.

Of course, power chords don't ring out as brightly as a barre chord would, but there are numerous times that a power chord sounds more appropriate for a given piece of music you are working with.

Here's an easy way to understand the power chord:

Power chords are not really chords at all. Chords are usually 3 notes or more, whereas power chords only have 2 different notes. A more correct name would be "power intervals" because they only contain two different notes. Usually power chords are composed of the root, a perfect 5th interval, and the root note doubled at a higher pitch (called an octave).

Basically they are just like playing perfect 5th intervals and doubling up a note or two.

Power chords are easy to play just about anywhere on the neck, but lend very little harmonic texture to a song. They do not have a major or minor third interval. A chord needs this interval in order to make it a major or minor chord.

If you're playing a song with a lot of distortion, strumming a full chord might create too much dissonance. Plus if you have a fast chord change, it's often easier to use power chords for the really fast part.

No Substitute For Learning The Real Thing

A lot of players get caught in the power chord trap. They learn how to play power chords but fail to learn the real chords. This is a major mistake. Just because you can play a C power chord does not mean you know a C chord. As we said before, they aren't really chords anyway.

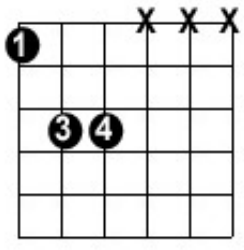
Learning chords is one of the most important things a guitar player can do. It does not matter what style of music you are interested in, you cannot avoid learning your chords! Failing to learn them will mean that you will fail as a guitarist in the long run.

Power Chords Move

What I'm about to show you are power chord patterns. These patterns can be moved up and down to create different power chords. The root note determines what power chord it is.

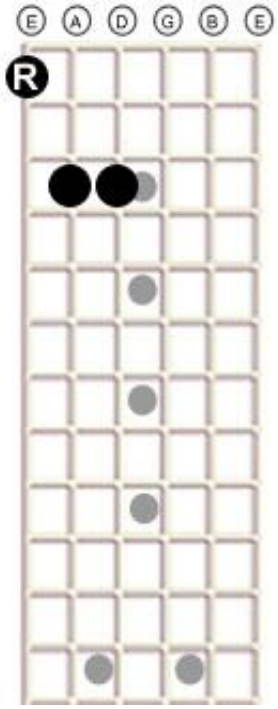
Take a look at this power chord pattern.

The note on the low E string is it's root note:



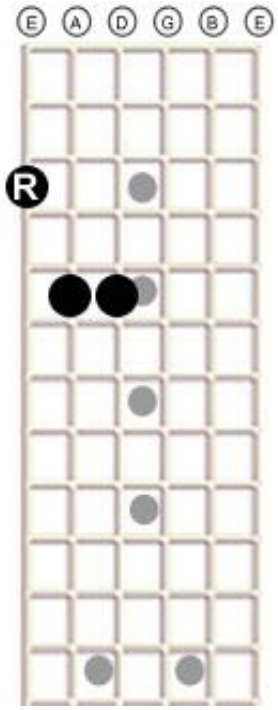
Now, by forming this pattern on the 1st fret we are creating an F power chord because the root note

is on an F note.



We can play this pattern all the way up the fretboard creating different power chords.

Here it is with the root note on the 3rd fret. The note on the 3rd fret of the low E string is a G, so that makes this power chord a G.



If you don't quite remember the names of the notes on the guitar's fretboard (you should by now), then don't fret.

Use the chart below to help you. At the top are numbers for the frets on the low E string. Below that are the names of the notes on those frets. If you're playing the power chord pattern above with it's

root note on the fret numbers below, you'll know the name of the power chord by looking at the chord names under it.

Fret	1	2	3	4	5	6	7	8	9	10	11	12
Chord	F	F#/Gb	G	G#/Ab	A	A#/Bb	B	C	C#/Db	D	D#/Eb	E