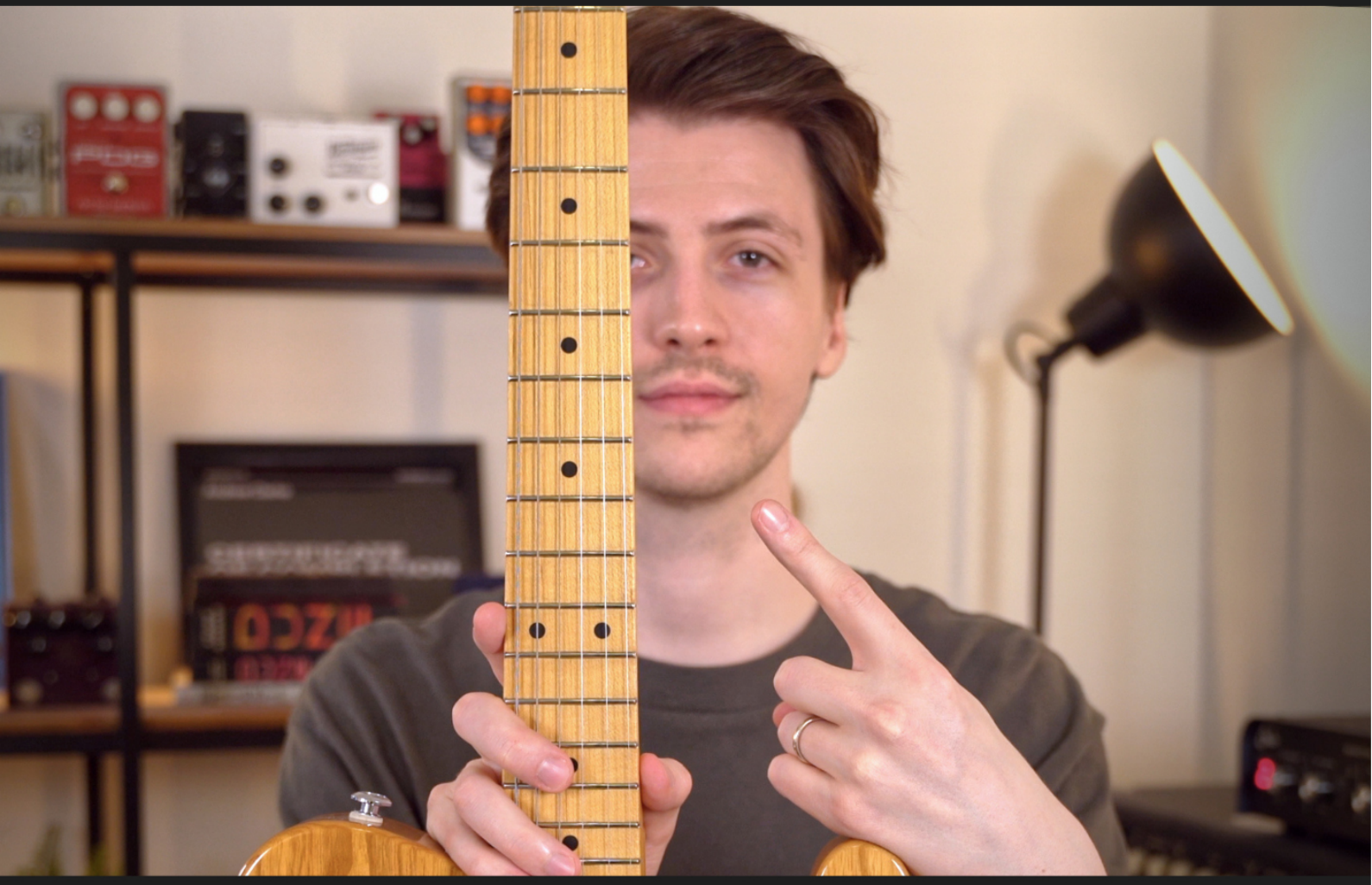
The Guitarist's Companion:

Keys & Chords



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The Guitarist's Companion: Keys & Chords

A music theory survival guide for the modern-day guitarist

by Andrew Clarke

Hey there! I've created this short guide to give you access to the most important pieces of music theory that I think every guitar player should know. Think of it as your trusty companion. There for you whenever you're learning something new. Designed to help you think less and play more.

The Major Scale

Western music is made up of twelve notes. If we just played these notes randomly, things wouldn't sound too musical. That's where the major scale comes in. It applies a pattern that organizes these notes and gets them sounding a lot more like music.

Just about every aspect of Western music theory comes from the major scale. That means it is incredibly important to have a complete understanding of how it works and how it's used. We'll start by looking at the formula used to create a major scale.

The Major Scale Formula

To create a major scale from our twelve notes, we simply start on any note and apply a series of half-steps and whole-steps.

Half-Step (Semitone): *A distance of one note. On the guitar, it's a distance of one fret.*
Whole-Step (Tone): *A distance of two notes. On the guitar, it's a distance of two frets.*

The pattern of steps in the major scale formula is as follows:

W - W - H - W - W - W - H

So if we start on a note and go up a whole-step, take that note, then go up another whole-step, take that note, then a half-step, take that note, etc. We would end up with a major scale that is named after the note we started on. That means if we started on a C note and applied the major scale formula, we'd end up with a C major scale.

My favorite way to remember the major scale formula is with the phone number trick. In North America, our phone numbers look like this: ***XXX-XXXX***

So if we use numbers instead of ***W****s and* ***H****s to represent how far apart each note is, we get something that looks like this:*

2 2 1 - 2 2 2 1

By applying this formula to every one of the twelve notes, we end up with twelve major scales. Technically, you could have both a ***sharp*** *and a* ***flat*** *version of each "in-between" scale, but this doesn't actually change the way the scale sounds or how it applies to the guitar fretboard.*

Major Scale Cheat Sheet

You'll notice that I've left out the ***A#****,* ***D#,*** *and* ***G#*** *major scales. That's because these contain notes that have to be written as* ***double-sharp*** *(##). So in the vast majority of cases you'll be using the* ***flat*** *version (****A# = Bb, D# = Eb, G# = Ab****) instead.*

Scale Name	I	II	III	IV	V	VI	VII
A Major Scale	A	B	C#	D	E	F#	G#
Bb Major Scale	Bb	C	D	Eb	F	G	A
B Major Scale	B	C#	D#	E	F#	G#	A#
C Major Scale	C	D	E	F	G	A	B
C# Major Scale	C#	D#	E#*	F#	G#	A#	B#*
Db Major Scale	Db	Eb	F	Gb	Ab	Bb	C
D Major Scale	D	E	F#	G	A	B	C#
Eb Major Scale	Eb	F	G	Ab	Bb	C	D
E Major Scale	E	F#	G#	A	B	C#	D#
F Major Scale	F	G	A	Bb	C	D	E
F# Major Scale	F#	G#	A#	B	C#	D#	E#*
Gb Major Scale	Gb	Ab	Bb	Cb*	Db	Eb	F
G Major Scale	G	A	B	C	D	E	F#
Ab Major Scale	Ab	Bb	C	Db	Eb	F	G

** These are notes that break the* ***BC & EF rule****, which states that there is no* ***sharp*** *or* ***flat*** *between these notes. We do this so we can have one of each letter in a scale. For example, the* ***Gb major scale*** *already has a* ***B*** *note (the* ***Bb****), so we have to use* ***Cb*** *instead, even though* ***Cb*** *and* ***B*** *are the exact same note.*

Keys & Chords

To find all the chords that naturally exist inside of a key, we start off with a major scale. Every major key is based on it's corresponding major scale. For example, the key of C major is based on the C major scale. And by taking the seven notes in the major scale and applying a new formula, we can get quickly get every chord in that key.

Major Minor Formula

*Before applying this formula, we'll need to number the notes in our major scale from one through seven. Once we've done this, we apply the formula: Notes **one**, **four**, and **five** are major chords. Notes **two**, **three**, and **six** are minor chords. And the **seventh** note is a diminished chord. This will give us the seven naturally occurring chords in that key, which we call our "diatonic" chords.*

Relative Major & Minor Keys

*Rather than doing a completely different process for minor keys, we rely on a concept called "relative" keys where every major key has a relative minor key. This can be found by locating the **SIXTH** note in any major scale. If you start that major scale from the sixth note, you'll have the relative minor scale.*

Since keys are based on their corresponding scales, this would mean that you would now also have your relative minor key.

*In the table below, I've noted where we'd find our relative minor key for each of the major keys. So for example, the **key of A major** would contain the exact same chords as the key of **F# minor**. In the same way, the key of **C major** would contain the exact same chords as the key of **A minor**. And so on and so forth.*

Major Key Cheat Sheet

						Relative Minor Key	
A Major Scale	**A**	**B**	**C#**	**D**	**E**	**F#**	**G#**
Number	I	ii	iii	IV	V	vi	vii
Chord	A Major	B Minor	C# Minor	D Major	E Major	F# Minor	G# Dim
7th Chord	A Major 7	B Minor 7	C# Minor 7	D Major 7	E7	F# Minor 7	G# Min7b5

						Relative Minor Key	
Bb Major Scale	**Bb**	**C**	**D**	**Eb**	**F**	**G**	**A**
Number	I	ii	iii	IV	V	vi	vii
Chord	Bb Major	C Minor	D Minor	Eb Major	F Major	G Minor	A Dim
7th Chord	Bb Major 7	C Minor 7	D Minor 7	Eb Major 7	F7	G Minor 7	A Min7b5

						Relative Minor Key	
B Major Scale	**B**	**C#**	**D#**	**E**	**F#**	**G#**	**A#**
Number	I	ii	iii	IV	V	vi	vii
Chord	B Major	C# Minor	D# Minor	E Major	F# Major	G# Minor	A# Dim
7th Chord	B Major 7	C# Minor 7	D# Minor 7	E Major 7	F#7	G# Minor 7	A# Min7b5

						Relative Minor Key	
C Major Scale	**C**	**D**	**E**	**F**	**G**	**A**	**B**
Number	I	ii	iii	IV	V	vi	vii
Chord	C Major	D Minor	E Minor	F Major	G Major	A Minor	B Dim
7th Chord	C Major 7	D Minor 7	E Minor 7	F Major 7	G7	A Minor 7	B Min7b5

						Relative Minor Key	
C# Major Scale	**C#**	**D#**	**E#***	**F#**	**G#**	**A#**	**B#***
Number	I	ii	iii	IV	V	vi	vii
Chord	C# Major	D# Minor	E# Minor	F# Major	G# Major	A# Minor	B# Dim
7th Chord	C# Major 7	D# Minor 7	E# Minor 7	F# Major 7	G#7	A# Minor 7	B# Min7b5

						Relative Minor Key	
Db Major Scale	**Db**	**Eb**	**F**	**Gb**	**Ab**	**Bb**	**C**
Number	I	ii	iii	IV	V	vi	vii
Chord	Db Major	Eb Minor	F Minor	Gb Major	Ab Major	Bb Minor	C Dim
7th Chord	Db Major 7	Eb Minor 7	F Minor 7	Gb Major 7	Ab7	Bb Minor 7	C Min7b5

						Relative Minor Key	
D Major Scale	**D**	**E**	**F#**	**G**	**A**	**B**	**C#**
Number	I	ii	iii	IV	V	vi	vii
Chord	D Major	E Minor	F# Minor	G Major	A Major	B Minor	C# Dim
7th Chord	D Major 7	E Minor 7	F# Minor 7	G Major 7	A7	B Minor 7	C# Min7b5

						Relative Minor Key	
Eb Major Scale	**Eb**	**F**	**G**	**Ab**	**Bb**	**C**	**D**
Number	I	ii	iii	IV	V	vi	vii
Chord	Eb Major	F Minor	G Minor	Ab Major	Bb Major	C Minor	D Dim
7th Chord	Eb Major 7	F Minor 7	G Minor 7	Ab Major 7	Bb7	C Minor 7	D Min7b5

						Relative Minor Key	
E Major Scale	**E**	**F#**	**G#**	**A**	**B**	**C#**	**D#**
Number	I	ii	iii	IV	V	vi	vii
Chord	E Major	F# Minor	G# Minor	A Major	B Major	C# Minor	D# Dim
7th Chord	E Major 7	F# Minor 7	G# Minor 7	A Major 7	B7	C# Minor 7	D# Min7b5

						Relative Minor Key	
F Major Scale	**F**	**G**	**A**	**Bb**	**C**	**D**	**E**
Number	I	ii	iii	IV	V	vi	vii
Chord	F Major	G Minor	A Minor	Bb Major	C Major	D Minor	E Dim
7th Chord	F Major 7	G Minor 7	A Minor 7	Bb Major 7	C7	D Minor 7	E Min7b5

						Relative Minor Key	
F# Major Scale	**F#**	**G#**	**A#**	**B**	**C#**	**D#**	**E#***
Number	I	ii	iii	IV	V	vi	vii
Chord	F# Major	G# Minor	A# Minor	B Major	C# Major	D# Minor	E# Dim
7th Chord	F# Major 7	G# Minor 7	A# Minor 7	B Major 7	C#7	D# Minor 7	E# Min7b5

						Relative Minor Key	
Gb Major Scale	**Gb**	**Ab**	**Bb**	**Cb***	**Db**	**Eb**	**F**
Number	I	ii	iii	IV	V	vi	vii
Chord	Gb Major	Ab Minor	Bb Minor	Cb Major	Db Major	Eb Minor	F Dim
7th Chord	Gb Major 7	Ab Minor 7	Bb Minor 7	Cb Major 7	Db7	Eb Minor 7	F Min7b5

						Relative Minor Key	
G Major Scale	**G**	**A**	**B**	**C**	**D**	**E**	**F#**
Number	I	ii	iii	IV	V	vi	vii
Chord	G Major	A Minor	B Minor	C Major	D Major	E Minor	F# Dim
7th Chord	G Major 7	A Minor 7	B Minor 7	C Major 7	D7	E Minor 7	F# Min7b5

						Relative Minor Key	
Ab Major Scale	**Ab**	**Bb**	**C**	**Db**	**Eb**	**F**	**G**
Number	I	ii	iii	IV	V	vi	vii
Chord	Ab Major	Bb Minor	C Minor	Db Major	Eb Major	F Minor	G Dim
7th Chord	Ab Major 7	Bb Minor 7	C Minor 7	Db Major 7	Eb7	F Minor 7	G Min7b5

** As was mentioned above, these are notes that break the BC & EF rule.*

B# = C, Cb = B, E# = F

Intervals

Another foundational component of music theory is intervals. These are simply the names we give the distances between any two notes. The different combinations of these intervals create the lovely things we know as chords.

Intervals Cheat Sheet

Interval Name	# of Semitones
Unison	0
Minor 2nd	1
Major 2nd	2
Minor 3rd	3
Major 3rd	4
Perfect 4th	5
Aug 4th/Dim 5th/Tritone	6
Perfect 5th	7
Minor 6th	8
Major 6th	9
Minor 7th	10
Major 7th	11
Octave	12

That's a wrap for this little guide. I hope you've found it to be helpful! I'd recommend printing it out or saving it on your phone so you always have it handy. Happy playing!

- Andrew