

Basic theory knowledge.

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What follows is just a brief summary of basic theory and harmony necessary to understand practical applications on your instrument.

The natural sounds are:

Italian	English
DO	C
RE	D
MI	E
FA	F
SOL	G
LA	A
SI	B

Chromatic scale.

All natural and altered sound (using sharps and flats)

C# D# F# G# A#
C ----- D ----- E F ----- G ----- A ----- B (C)
Db Eb Gb Ab Bb

Notes called with a different name, but identifying the same sound, are called enharmonic (i.e.: C# e Db). The shortest distance between two sound of the chromatic scale is a Half Step, the distance of a fret on the guitar.

Sharps and flats.

= sharp: raises the given note of a half step.

= double sharp: raises the given note of two half steps.

b = flat: lowers the given note of a half step.

bb = double flat: lowers the given note of two half steps.

♮ = natural: cancels sharps and flats.

How to build a major scale.

The spacing of the notes in a major scales follow this rule:

WWHWWWH

Where W = Whole step H= Half step

Example : C major

C D E F G A B C
/---W---/ /---W---/ /-H-/ /---W---/ /---W---/ /---W---/ /-H-/

To build major sales in other keys use exclusively either sharps or flats choosing the notes so that a note with the same note is never repeated. In doing so you will only use Diatonic half steps (given by two notes with different name, i.e. C-Db, opposite to Chromatic half steps given by two notes with the same name, as in D –D#).

This is a list of all the major scales in all keys. The order follows the amount of sharps and flats in the key.

Keys with flats.

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

Keys with sharps.

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

Relative minor (key).

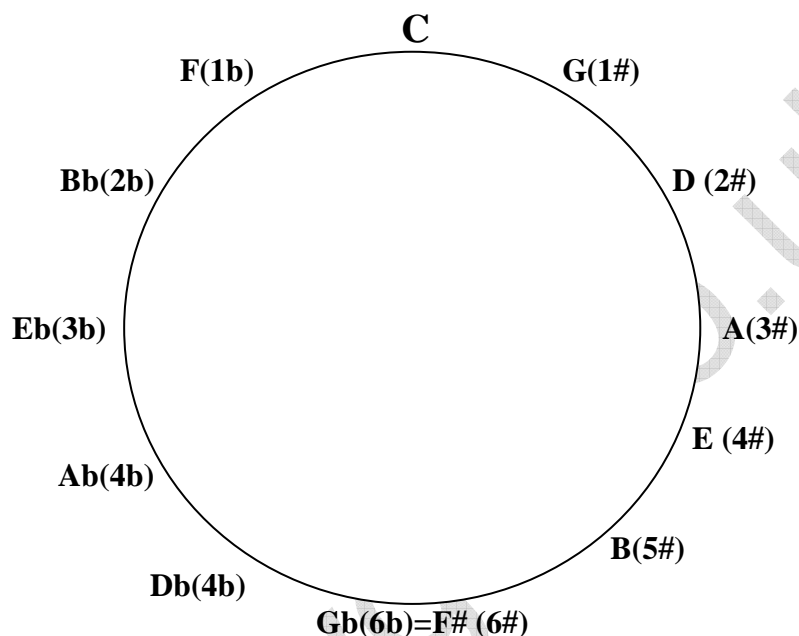
Every major key has one relative minor which is made of the same notes, but starting from the sixth, or, in other words, a minor third below (or a major sixth above). For example: C major: its Relative minor is A minor, spelled A B C D E F G.

Circle of fifths.

The circle of fifths one of the most used ways to summarize all I explained so far. It is very useful to memorize how many and which alterations a specific key has.

I find very useful to memorize FCGDAEB and the same sequence backwards BEADGCF. The first is the order of *sharps* the second, of *flats*. So if a key has, for example, 3 sharps (A major) they will be the first 3 notes in the first sequence (F# C# G#).

The Circle of fifths.



Basic harmony knowledge.

Intervals.

An interval is the distance between two notes.

Intervals of a second, third, sixth and seventh are called *major*. If a major interval is raised by an half step it is called augmented. If a major interval is lowered by an half step it is called minor. If lowered by two half steps, diminished.

Intervals of a fourth, fifth and octave are called perfect. If a perfect interval is raised by an half step it is called augmented. If a perfect interval is lowered by an half step it is called diminished (note the difference).

All the intervals from the tonic of a major scale to any other note of the scale are major or perfect (i.e. between C and D=maj2nd, C e E=maj3rd, C e F=perf4th, and so on...)

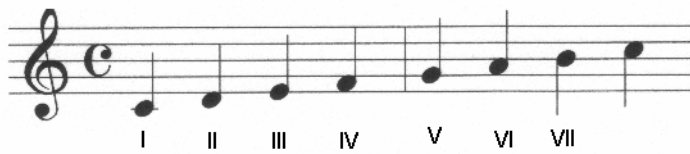
Intervals can also be calculated summing up half steps:

N.of htps	1	2	3	4	5	6	6	7	8	8	9	10	10	11	12
Interval	m2	M2	m3	M3	P4	4aug	5dim	P5	5aug	m6	M6	6aug	m7	M7	P8

where m=minor, M=major, P=perfect, dim=diminished, aug=augmented.

Harmonized major scale – How chords are built.

In the example below every note of a major scale identifies a ‘grade’ of the scale. In the example I have used C major, but this is valid for every other major scale.



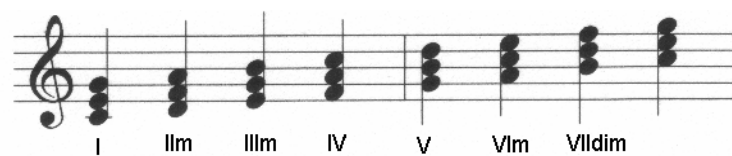
If I stack on every grade two more notes a third apart (basically every other one) I end up with different kinds of triads (triad=group of three notes). These triads are shown in the example below.

If we analyse the intervals between notes:

A Major Triad has a Maj 3rd and a Perf 5th (Eg. C-E-G: C-E=maj 3rd , C-G Perf 5th).

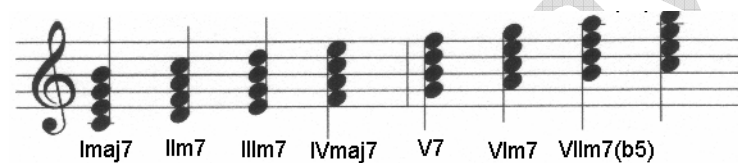
A Minor Triad has a min 3rd and a Perf 5th.

A Diminished Triad has a min 3rd and a diminished 5th.



You will have the same series of chords in all the other keys Eg: F major: F, Gm, Am, Bb, C, Dm, Em.

If we stack another note a diatonic third apart from the last note of the above triads we will have Seventh chords.



This again is valid for all the 12 keys. This concept is vital to understand how songs are built and how to pick the correct scale for a solo.