# **GUITAR THEORY REVOLUTION**

**Diagrams and Tables** 

# Numbering the guitar strings



#### All the notes

e Gb Bb Ab B Gb F# В G D Db Gb F# Gb G# A# B C# F Bb Ab Db G# F# Gb ĽΕ Gh 12th 1st 3rd 5th 7th 9th

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# Colour and Shape Key

Note	Colour	Shape
С	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
В	Yellow-Green	Circle
Е	Yellow	Square
А	Orange-Yellow	Circle
D	Orange	Square
G	Red-Orange	Circle

# The Universal Note Pattern

# F: Starting at the 1<sup>st</sup> fret



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G: Starting at 3<sup>rd</sup> fret

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# A: Starting at the 5<sup>th</sup> fret

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



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# B: Starting at the 7<sup>th</sup> fret

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



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# C: Starting at the 8<sup>th</sup> fret



D: Starting at the 10<sup>th</sup> fret



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# E: Starting at the 12 fret

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



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# Natural Notes





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#### The Five Fret Pattern



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# C Major scale / A minor scale



# CAGED Chord Shapes

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).



# CAGED Triads

# C Major Triads



A Major Triads

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# G Major Triads

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# E Major Triads

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# D Major Triads



The other Major triads

F Major Triads



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# F# / Gb Major Triads



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G# / Ab Major Triads

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#### A# / Bb Major Triads



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# **B** Major Triads



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#### C# / Db Major Triads



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#### D# / Eb Major Triads

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# Harmonising the C Major Scale

Fret Distance	0	2	4	5	7	9	11	12
Major Scale	С	D	Е	F	G	А	В	С
Roman Numerals	Ι	ii	iii	IV	V	vi	vii°	Ι
Notes of each triad	С	D	Е	F	G	А	В	С
	Е	F	G	А	В	С	D	Ε
	G	Α	В	С	D	Ε	F	G

# Substituting $6^{th}$ and $7^{th}$ Chords

Roman Numeral Major key	Triad	7 <sup>th</sup> Chord
Ι	Major	Major 7th
ii	minor	minor 7 <sup>th</sup>
iii	minor	minor 7 <sup>th</sup>
IV	Major	Major 7 <sup>th</sup>
V	Major	Dominant 7 <sup>th</sup>
vi	minor	minor 7 <sup>th</sup>
vii <sup>o</sup>	Diminished	minor $7^{th}b5$ or Half-Diminished $7^{th}$

Roman Numeral Triad 7<sup>th</sup> Chord minor key

i	minor	minor 7th
IIº	Diminished	minor 7 <sup>th</sup> b5 or Half-Diminished 7 <sup>th</sup>
III	Major	Major 7 <sup>th</sup>
iv	minor	minor 7 <sup>th</sup>
V	minor	minor 7 <sup>th</sup>
VI	Major	Major 7 <sup>th</sup>
VII	Major	Dominant 7 <sup>th</sup>





Circle of 4ths and 5ths: Minor keys



# 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.

Major Key	Ι	ii	iii	IV	v	vi	vii°
Α	А	Bm	C#m	D	Е	F#m	G#dim
В	В	C#m	D#m	Е	F#	G#m	A#dim
С	С	Dm	Em	F	G	Am	Bdim
D	D	Em	F#m	G	А	Bm	C#dim
Е	Е	F#m	G#m	А	В	C#m	D#dim
F	F	Gm	Am	Bb	С	Dm	Edim
G	G	Am	Bm	С	D	Em	F#dim

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

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# Pentatonic Scales

#### C Major Pentatonic / A minor Pentatonic



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C# Major Pentatonic / A# minor Pentatonic

# C# <th

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#### D Major Pentatonic / B minor Pentatonic



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D# Major Pentatonic / C minor Pentatonic



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#### E Major Pentatonic / C# minor Pentatonic



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F Major Pentatonic / D minor Pentatonic



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#### F# Major Pentatonic / D# minor Pentatonic



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#### G Major Pentatonic / E minor Pentatonic



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#### G# Major Pentatonic / F minor Pentatonic



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A Major Pentatonic / F# minor Pentatonic



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#### A# Major Pentatonic / G minor Pentatonic



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B Major Pentatonic / G# minor Pentatonic



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# 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 3<sup>rd</sup> 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 3<sup>rd</sup> 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



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

Fret Distance	
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Example Nur

# Number of <sup>1</sup>/<sub>2</sub> Steps Number of Whole Steps

0 - 0	C – C	0	0
0 – 1	C – C#	1	1⁄2
0 – 2	C# - D	2	1
0 – 3	D – D#	3	11⁄2
0-4	D# - E	4	2
0 – 5	$\mathbf{E} - \mathbf{F}$	5	21⁄2
0 - 6	F - F#	6	3
0 – 7	F# - G	7	31⁄2
0 – 8	G – G#	8	4
0 – 9	G# - A	9	41⁄2
0 - 10	A - A#	10	5
0 – 11	A# - B	11	5½
0 - 12	B - C	12	6

Below you'll find examples of all the intervals taken from famous pieces of music. Unless stated the examples have the interval in the first two notes of the 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: ' <b>Jin-gle</b> Bells, <b>Jin-gle</b> Bells'
0 – 1	Theme from Jaws: ' <b>Dum, dum</b> , dum dum'
0 – 2	Frere Jacques: ' <b>Fre-re</b> Jacques, <b>Fre-re</b> Jacques'
0 – 3	Somewhere Out There (American Tail): 'Some-where, out there
0-4	Have Yourself A Merry Little Christmas: 'Have yourself a'
0 – 5	Auld Lang Syne: ' <b>For all</b> '
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
0 – 9	My Bonnie Lies Over The Ocean: ' <b>My bo</b> nnie lies'
0 - 10	Theme from Star Trek the Original Series: The first two notes
0 – 11	Take On Me by Aha: ' <b>Take on</b> me take me on'
0 – 12	Somewhere Over The Rainbow: 'Some-where over the'

Intervals	Descending Examples
0 – 0	Jingle Bells: ' <b>Jin-gle</b> Bells, <b>Jin-gle</b> Bells'
0 – 1	Joy To The World: ' <b>Joy to</b> the world'
0 – 2	Mary Had A Little Lamb: ' <b>Ma-ry</b> had a little lamb'
0 – 3	Hey Jude: ' <b>Hey Jude</b> don't let me down'
0 - 4	Swing Low Sweet Chariot: 'Swing low sweet chariot'
0 – 5	My Girl: ' <b>My girl</b> 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: ' <b>No-bo</b> dy knows'
0 - 10	Lady Jane by the Rolling Stones: ' <b>Just heed</b> '
0 – 11	I Love You by Cole Porter: 'I <b>Love You</b> "
0 – 12	Salt Peanuts by Dizzy Gillespie: 'Salt <b>pean-nuts</b> , salt peanuts'

<b>Relative Number</b>	Degree	Degree Name	Roman Numeral
1	First (Root)	Tonic	Ι
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 <sup>o</sup>
8	Eight (Octave)	Tonic	Ι

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

# 2<sup>nd</sup> Octave Intervals

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

Chord Name	Symbol	Alternate Symbols
Major	М	Maj, ∆
minor	m	min, -
Major 6 <sup>th</sup>	Maj6	Maj6, M6
minor 6 <sup>th</sup>	m6	min6, -6
six-nine	6/9	6(add9), Maj6(add9), M6(add9)
Major 7 <sup>th</sup>	Maj7	M7, Maj7
Dominant 7 <sup>th</sup>	7	
minor 7 <sup>th</sup>	m7	min7, -7
minor with Major 7 <sup>th</sup>	m(Maj7)	min(Maj7), -(M7)
Half-diminished 7 <sup>th</sup>	m7b5	ø 7, half-dim7, m7(-5)
diminished 7 <sup>th</sup>	0	dim, dim7
Augmented 7 <sup>th</sup>	7+	7(#5), 7(+5)
Dominant 7 <sup>th</sup> with b5	7b5	7(-5)
Major 9 <sup>th</sup>	Maj9	$\Delta(add9)$
Dominant b9	7b9	9(add b9), 7-9
minor 11 <sup>th</sup>	m11	m7(add11), min7(add11)
Major 7 #11 <sup>th</sup>	Maj7#11	+11, Δ(+11), M7(#11), Maj7(+11)
Dominant 13 <sup>th</sup>	13	7(add13), 7(add6)
Major 13 <sup>th</sup>	Maj13	$\Delta$ (add13), M7(add13), Maj7(add13)
minor 13 <sup>th</sup>	m13	-13, m7(add13)
Suspended 4 <sup>th</sup>	(sus 4)	(sus4)
Augmented	+	aug, #5, +5