## Music Theory by Gary L. Wimmer - garywimmer.com

b means 'flat' - one note/fret down \& \# means 'sharp' - one note/fret up : There are only 12 notes, then they repeat up one octave.
A A\# B C C\# D D\# E F F\#
G G\# (Then the next octave starts) A
A\#
C C\# D
D\# E F F\# G G\#
$\mathrm{Bb} \quad \mathrm{Dd} \mathrm{Eb} \quad \mathrm{Gb} \quad \mathrm{Ab} \quad \mathrm{Bb} \quad \mathrm{Dd} \quad \mathrm{Eb} \quad \mathrm{Gb} \quad \mathrm{Ab}$

The five $\mathbf{b}$ or \# notes shown correspond to the five black notes in each octave on the piano so $\mathrm{B} \#=\mathrm{C}, \mathrm{Cb}=\mathrm{B}, \mathrm{E} \#=\mathrm{F}$ and $\mathrm{Fb}=\mathrm{E}$. Likewise, in the same manner, $\mathrm{A} \#$ and Bb are the same note with different names, and $\mathrm{C} \#=\mathrm{Db}, \mathrm{D} \#=\mathrm{Eb}, \mathrm{F} \#=\mathrm{Gb}, \mathrm{G} \#=\mathrm{Ab}$.
A major scale starts on any note and follows the formula 1-1-1/2-1-1-1-1/2 Where $1=$ whole step ( 2 frets) \& $1 / 2=1 / 2$ step ( 1 fret). So a major scale starts with any note and goes Whole, Whole, Half, Whole, Whole, Whole, Half (Step)

$$
1-1-1 / 2-1-1-1-1 / 2
$$

Therefore, the Notes in the Major Scales are as shown below. The INTERVAL between the notes are listed as 1, 2nd, 3rd, etc.

| KEY |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th |
| A | B | C\# | D | E | F\# | G\# | A |
| Bb | C | D | Eb | F | G | A | Bb |
| B | C\# | D\# | E | F\# | G\# | A\# | B |
| C | D | E | F | G | A | B | C |
| C\# or Db | D\# | F | F\# | G\# | A\# | C | C\# |
| D | E | F\# | G | A | B | C\# | D |
| Eb or D\# | F | G | Ab | Bb | C | D | Eb |
| E | F\# | G\# | A | B | C\# | D\# | E |
| F | G | A | Bb/A\# | C | D | E | F |
| F\# or Gb | G\# | A\# | B | C\# | D\# | F | F\# |
| G | A | B | C | D | E | F\# | G |
| Ab or G\# | Bb | C | Db | Eb | F | G | Ab |

Chords are formed from the notes in the major scale using the following rules, regardless of key. The most common chords are:

| Major (M) | 1 | 3 | 5 |  |
| :--- | :--- | :--- | :--- | :--- |
| Minor (m) | 1 | b3 | 5 |  |
| Major 7th | 1 | 3 | 5 | 7 |
| (Dom) 7th | 1 | 3 | 5 | b7 |
| 6th | 1 | 3 | 5 | 6 |
| Minor 6th | 1 | b3 | 5 | 6 |
| Minor 7th | 1 | b3 | 5 | b7 |
| Augmented (aug, +) | 1 | 3 | $\# 5$ |  |
| Diminished (dim, -) | 1 | b3 | b5 |  |

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| Key | Major (M) | Minor (m) | $\begin{aligned} & \text { Major 7th } \\ & (\triangle \text { or Maj7) } \end{aligned}$ | $\begin{aligned} & \text { Dominant 7th } \\ & (7 \text { or } 7 \text { th }) \end{aligned}$ | $\begin{gathered} \text { 6th } \\ \text { (6 or 6th) } \end{gathered}$ | Minor 6th (m6) | $\begin{aligned} & \hline \text { Minor 7th } \\ & (\text { (m7) } \end{aligned}$ | Augmented <br> (Aug or +) | Diminished (dim or -) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | A, C\#, E | A, C, E | A, C\#, E, G\# | A, C\#, E, G | A, C\#, E, F\# | A, C, E, F\# | A, C, E, G | A, C\#, F | A, C, D\# |
| C | C, E, G | C, Eb, G | C, E, G, B | C, E, G, Bb | C, E, G, A | C, Eb, G, A | C, Eb, G, Bb | C, E, G\# | C, Eb, Gb |
| D | D, F\#, A | D, F, A | D, F\#, A, C\# | D, F\#, A, C | D, F\#, A, B | D, F, A, B | D, F, A, C | D, F\#, A\# | D, F, G\# |
| E | E, G\#, B | E, G, B | E, G\#, B, D\# | E, G\#, B, D | E, G\#, B, C\# | E, G, B, C\# | E, G, B, D | E, G, C | E, G, A\# |
| F | F, A, C | F, Ab, C | F, A, C, E | F, A, C, D\# | F, A, C, D | F, Ab, C, D | F, Ab, C, D\# | F, A, C\# | F, Ab, B |
| G | G, B, D | G, Bb, D | G, B, D, F\# | G, B, D, F | G, B, D, E | G, Bb, D, E | G, Bb, D, F | G, B, D\# | G, Bb, Db |

This chart shows the notes from the major scale used to create the most commonly used chords. In parentheses ( ) below each chord name is the letter or symbol used to describe the chord - as written in sheet music or fake books with only the melody line and the chords. Major, minor and diminished are the most commonly used chords, followed by Major 7th and Dominant 7th. When playing, guitarists often think more in terms of positions more than actual notes, but it is still important to understand why such notes form the chords. Again, simply follow the formulas listed above. They will always work!

| Major (M) | 1 | 3 | 5 |  |
| :--- | :--- | :--- | :--- | :--- |
| Minor (m) | 1 | b3 | 5 |  |
| Major 77h | 1 | 3 | 5 | 7 |
| (Dom) 7th | 1 | 3 | 5 | b7 |
| 6th | 1 | 3 | 5 | 6 |
| Minor 6th | 1 | b3 | 5 | 6 |
| Minor 7th | 1 | b3 | 5 | b7 |
| Augmented (aug, +) | 1 | 3 | $\# 5$ |  |
| Diminished (dim, -) | 1 | b3 | b5 |  |

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If we use chords for the notes of the major scale we end up with a progression of chords (Chord Progression) that represent the most likely chords that will be used in that particular key, but more unique melodies do have exceptions. These chords are formed by taking the $1,3,5$ of the major scale (which make up the major chord) and walking up the major scale at the same intervals. $1,3,5$ then $2,4,6$ then $3,5,7$ then $4,6,8$ and so on. Using this progression we get the chords that will always follow this pattern:

## Major, minor, minor, Major, Major, minor, diminished, Major.

## These chords (in any key) are represented by Roman Numerals I through VIII

## CHORDS

| I | II | III | IV | V | VI | VII | VIII |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Bm | C\#m | D | E | F\#m | G\# dim | A |
| A\# or Bb | Cm | Dm | Eb | F | Gm | A dim | Bb |
| B | C\#m | D\#m | E | F\#m | G\#m | A\# dim | B |
| C | Dm | Em | F | G | Am | B dim | C |
| C\# or Db | D\#m | Fm | F\# | G\# | A\#m | C dim | C\# |
| D | Em | F\#m | G | A | Bm | C\# dim | D |
| Eb or D\# | Fm | Gm | Ab | Bb | Cm | D dim | Eb |
| E | F\#m | G\#m | A | B | C\#m | D\# dim | E |
| F | Gm | Am | Bb/A\# | C | Dm | E dim | F |
| F\# or Gb | G\#m | A\#m | B | C\# | D\#m | F dim | F\# |
| G | Am | Bm | C | D | Em | F\# dim | G |

Most songs use only a few chords in a certain progression, the I, IV and V being the most common chords used. Many songs use ONLY these three chords (I, IV, V). Though the possibilities are almost endless, some common progressions are: //// = four beats. Count 1, 2, 3, 4
$\begin{array}{cccc}\text { I } & \text { IV } & \text { V } & \text { I } \\ \text { I/II } & \text { I/I/ } & \text { I/I/ } & \text { I/II }\end{array}$

| Blues: I | IV | I | IV | 1 | V | IV | I | V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I/I/ | I/II | //I/I/I/ | //I/I/I/ | //I/I// | //I/ | /I/I/ | //I/ | /I/I |
| allads: | VI | IV | V | OR | I | VI | II | V |
| I/II | I/II | /II/ | I/II |  | /I/I | //I/ | /III | //IIf |

Other Progressions:

| I | V | VI | III | IV | I | V | I | V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| //// | //// | I/// | I/// | I/// | // | // | // | // |

$\begin{array}{ccccccc}\text { II } & \text { V } & \text { I } & \text { IV } & \text { II } & \text { V } & \text { I } \\ \text { I/// } & \text { I/// } & \text { I/// } & \text { I/// } & \text { I/// } & \text { I/// } & \text { I////// }\end{array}$

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What If God Was One Of Us: KEY of G

| VI | IV | I | V |
| :--- | :--- | :--- | :--- |
| Em | C | G | D |
| // | // | // | // |


| All M | o |  | tles | of |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| II | V | I | VI | IV | II | D | V |
| F\#m | B | E | C\#m | A | F\#m | D | B |
| /I/I | ///] | //I/ | /I/I | //I/ | I/II | ///] | ///] |

Here the $\mathbf{D}$ chord is an exception used to make the melody interesting. The natural $\mathbf{D}$ chord that would be used in the key of E would be $\mathrm{D} \# \mathrm{dim}$ but this doesn't work here, so McCartney used a Major D and it works great.

|  | day : B | tles | Key of E |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E | D\#sus4 | G\# | C\#m | B | A | B | A | E | C\#m | F\# | A | E |
| I | D\#sus4 | G\# | VI | V | IV | V | IV | I | VI | F\# | IV | I |
| IIII | // | // | //I | / | // | // | / | III | // | // | / | //] |

Happy Birthday To You Key of C

| C | G | G | C | C | F | C | G | C |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| I | V | V | I | I | IV | I | V | I |
| $/ / / / /$ | $/ / / /$ | $/ / / /$ | $/ / / /$ | $/ / / /$ | $/ / / /$ | $/ /$ | $/$ | $/ / /$ |


| Blowing in |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| the Wind | Key of D |  |  |  |  |  |  |
| D | G | D | D | D | G | A | 3 times |
| I | IV | I | I | I | IV | V |  |
| // | // | // | // | // | // | //// |  |
| then... |  |  |  |  |  |  |  |
| G | A | D | Bm | G | A | D |  |
| IV | V | I | VI | IV | V | I |  |
| // | $/ /$ | $/ /$ | // | // | // | //// |  |

## Music Theory by Gary L. Wimmer - garywimmer.com <br> Finger picking pattern

I suggest resting right hand pinky on guitar next to sound hole and strings (for stability of right hand). Now make a C chord and use your thumb (T) and your three fingers on your right hand - index finger (1), middle finger (2), and ring finger (3) as shown below.

Pluck the strings while slowly while saying "I like to play this tune." On "I" you pluck two strings at once, indicated by the X, and hold for two beats. "Like to play this" have one string plucked for each word, and each is held for only one beat. Then "tune" is held for two beats. Total $=8$ beats ( $4 / 4$ time, or some similar time signature). In addition to using "I like to play this tune" you should be able to count ' 1 through 8 ' or ' 1 and 2 and'... and end up ready to start over - in beat and time - with I. This finger-picking simple style, when developed over time, can be used to play numerous songs, styles, etc. by changing the basic patter to suit the needs of the song. Count as you play - any of the following ways.


