

learn to Play Piano BY EAR



Written By Nathan Andersen Copyright 2005

Introduction

The ultimate goal of this book is to teach you to play familiar songs by ear. Just as a book on losing weight won't take off those extra 20 lbs simply through reading, this book will not instantly give you the ability to play songs by ear. This book will teach you how to go about learning to play by ear.

Largely the work you will need to do to learn to play by ear is to find common chord progressions, such as the chord C moving to the chord G, and then find every instance of that progression in the songs you like to play. The more songs you learn the stronger your ear will become.

Your Progressions Folder

My suggestion is that *right away* you start to keep a folder that has the progressions talked about in the book, and then every instance of that progression you can find in other songs.

You don't necessarily have to be able to read or notate music to do this. You can write the lyrics out with the chord symbols written above:

G	C	G
Oh,	beautiful for	spacious skies

You will want to break up lines, if they fall into two different patterns, for example, the first two chords, G and C might be an individual pattern. For example, here it is in the song, "Amazing Grace".

G	C	F	C
A -	mazing Grace	how Sweet	the Sound

So you might have one section of your folder that is labeled “G leading to C”, and then write a small snippet of that song there.

G leading to C (V leading to I)

G C

A - mazing (from “Amazing Grace”)

G C

Oh, beautiful (from “America, the Beautiful”)

I would recommend not putting too large a selection of a song in that part of the folder. To help get the sound of these two chords into your ear, you will want to regularly practice these just these two chords with every snippet you have. If you play the whole phrase through that has other chords than just these two, you will dilute the ear training effect. If you take a song, and break it up into pieces this way, instead of trying to memorize it straight through, your ear will develop much faster. And you'll find you can play songs from memory much more easily, because you will understand the structure of the song much better.

I would also highly recommend that you transpose every song to one key in your folder, preferably the key of C. Playing all of the progressions in one key will also speed up the chord recognition process.

Transposing

I have transposed everything in the book to the key of C, to aid you in hearing the similarities between the songs. I suggest you transpose everything in your progressions folder to the key of C. If you want to learn a song in the key that it's usually performed in, that's fine, but that should be a separate project. The more you find the similarities between songs, the faster your ear will begin to hear them without trying. Studying the changes in one (at first) should be a big help.

Here's a chart if you need help transposing.

half-steps lower						half-steps higher						
Key of F#	Key of G	Key of Ab	Key of A	Key of Bb	Key of B	Key of C	Key of C#	Key of D	Key of Eb	Key of E	Key of F	Key of Gb
G	Ab	A	Bb	B	C	C#	D	Eb	E	F	F#	G
Ab	A	Bb	B	C	C#	D	Eb	E	F	F#	G	Ab
A	Bb	B	C	C#	D	Eb	E	F	F#	G	Ab	A
Bb	B	C	C#	D	Eb	E	F	F#	G	Ab	A	Bb
B	C	C#	D	Eb	E	F	F#	G	Ab	A	Bb	B
C	C#	D	Eb	E	F	F#	G	Ab	A	Bb	B	C
C#	D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C#
D	Eb	E	F	F#	G	Ab	A	Bb	B	C	C#	D
Eb	E	F	F#	G	Ab	A	Bb	B	C	C#	D	Eb
E	F	F#	G	Ab	A	Bb	B	C	C#	D	Eb	E
F	F#	G	Ab	A	Bb	B	C	C#	D	Eb	E	F

If you need to move a chord from the key of F to the key of C, find the chord root in the column labeled “Key of F”, then find the note on the same row, but in the column labeled “Key of C”.

For example, if you need to transpose D7 from the key of F to the key of C, you would find the note “D” in the “Key of F” column, then find the note on the same row, but in the “Key of C” column. So you would find the note “A”. Then just make sure it matches the quality of the chord: Since it was a D7 chord, we’ll make it an A7 chord.

Where to Find Songs

I’ve tried my best in this book to use songs that are familiar. Many of these songs are either folk tunes, Broadway songs or Standards.

Two great books that contain many of the songs referenced in this book are:

- The Ultimate Jazz Fakebook (“C” Edition)
- The Ultimate Broadway Fakebook

Check them out on Amazon.com or your local bookstore.

If you don’t know some of the songs, you can go to iTunes online and listen to part of the song for free. If you like the tune download it. I’ve tried to only include songs in this book which are considered classic. So if you don’t know the tunes, I believe you would be glad to know them.

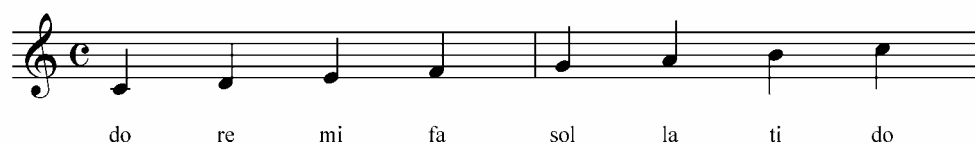
There are also many resources on the internet where people post the chord progressions to songs – this is especially handy for modern songs where the music hasn't been published, or isn't readily available. Just be suspicious, because some of these posts are wrong!

When you start to get good at playing by ear, you can of course add songs yourself after listening to a recording!

Solfeggio

In the book, instead of writing out the lyrics, I've written out the melody notes in **solfeggio**. Solfeggio has been around since the Middle Ages as a system to aid in pitch memory. It was popularized in the musical *The Sound of Music*. Remember, the song, "do, re, mi"? That's solfeggio. There are several variations on how it's used. In this book, we'll be using what's called **chromatic solfeggio**. It uses different syllables for flat and sharp notes.

Here are the seven basic solfeggio syllables.



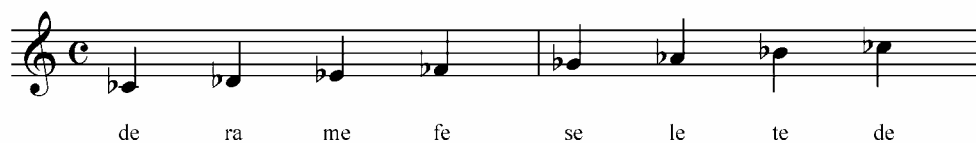
There are different names for the sharps and flats.

Here are the sharp names:



Basically, the vowel changes to an "ee" sound. Since "mi" and "ti" already have this sound, they don't change. You'll rarely see sharped "mi" and "ti", since those two notes are only used in the C# major chord and the G# major chord – which are rarely used.

Here are the flat names:



Basically, the vowel changes to the “ay” sound, such as in the word “pay”. Only the second scale degree, “re” changes to “ra” (rhymes with “paw”), since it already uses the “ay” sound.

If you are not familiar with solfeggio, this book will help you acquire a helpful familiarity to it. It can be a wonderful aid in ear training for sight-reading and playing by ear.

Chapter 1: Melodic Patterns and Beginning Chord Patterns

Learning to play by ear is like learning a language. You have to develop vocabulary. There is no such thing as a person without any musical training who sits down at the piano and plays a song heard on the radio from memory. To recreate what you hear, you must be able to analyze what you hear, and turn it into patterns you recognize and know how to play.

Patterns are very important to learning to playing by ear, because it reduces the number of elements you have to think about.

To illustrate the importance of patterns in memorization consider the following problem.

Let's say that an evil genius tells you that you must memorize the following number in 30 seconds or he'll vaporize the earth with a ray gun planted on the moon. You would have a much easier time of it if you realize there's a simple pattern going on.

654321543216432165321654216543165432

See if you can figure it out!

The answer is that every six numbers are the same, except that the first element is dropped and then added as the last element of the six.

654321 543216 432165 321654 216543 165432

So really what you're memorizing in this case is not 36 numbers, but two elements:

- The first six numbers
- The pattern of repetition.

The same sort of thing happens in music. I like to visit the piano bars in New York City, and there are players there who claim to know 20,000 songs, and any good piano

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bar player knows at least a thousand songs! How is this possible? Because they learn to recognize that every song follows certain patterns. There are only so many chords and chord patterns, and the truth is, there are far fewer that sound any good. The chords that sound good get used a lot.

In any key there are seven (unaltered pitches). And chords are made starting each one.

The image displays two musical staves. The top staff is a treble clef with a key signature of one sharp (F#) and a common time signature (C). It contains a scale of eight notes: C4, D4, E4, F4, G4, A4, B4, and C5. Below the notes are the labels 'do', 're', 'mi', 'fa', 'sol', 'la', 'ti', and 'do'. The bottom staff is also a treble clef with a common time signature (C). It shows eight chords corresponding to the notes above: C major, D minor, E minor, F major, G major, A minor, B diminished, and C major. Each chord is represented by a vertical line with a dot indicating the pitch of each chord member.

The three most common chords are

- the I chord (the C chord in the key of C)
- the IV chord (the F chord in the key of C)
- and the V chord (the G chord in the key of C)

They are the major chords. Happy folk songs usually use these chords, because they use simple harmony. 20th century music gets more complicated. So we'll start with hymns and folk songs and move into more complicated music.

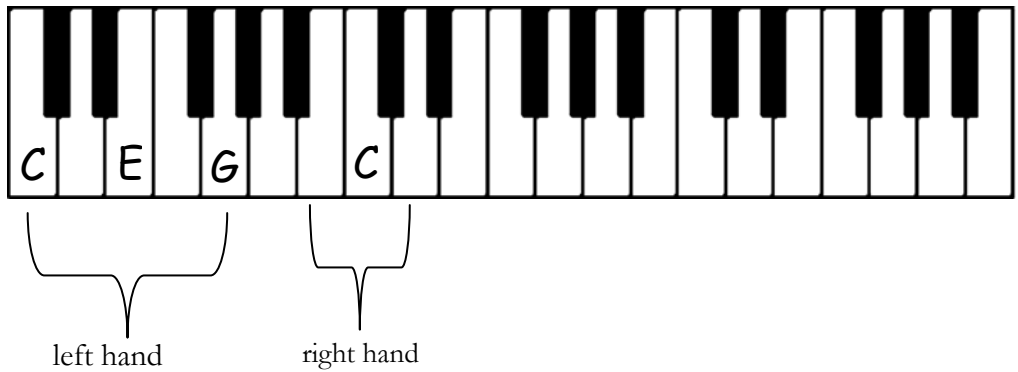
The I Chord

Most songs will start on the “one” chord. The one chord in the key of C is the chord C.

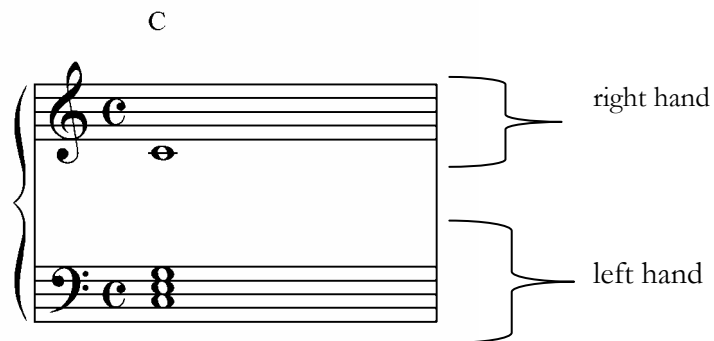
For now, just play the C chord in the left hand as you see below. It will be the notes C, E and G.



We’re going to play the melody in the right hand. Let’s add the melody note C to the right hand.



Here’s how the C chord would look with notated music:



BASIC CHORD PATTERNS

In this book, when I give you musical examples, I'm leaving the left hand out. So when you see an example like this, you are only seeing the right hand. The chord symbols written above the staff will be the left hand.

“Silent Night”

The solfeggio syllables for the C chord are “do”, “mi”, and “sol”.



do mi sol

Ideally, as you figure out a melody, you'll sing it to yourself (in your head – or out loud) in solfeggio.

Look above at the first measure of “Silent Night”

You would play the chord C in the left hand, and in the right hand you'll play the “sol”, “la”, “sol”, “mi” melody.

Here are the notes you'll use in the first measure of “Silent Night”. See if you can figure it out.

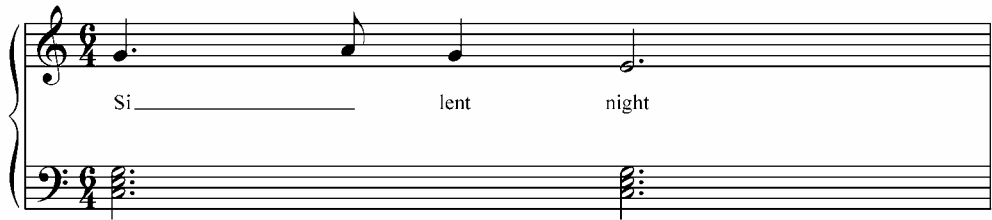


do mi sol mi sol la

BASIC CHORD PATTERNS

You can play the left hand chord as often as you like. You can play a chord in the left hand along with every melody note, or you can play it only once. I would recommend just feeling where the chords should hit. Try to create a rhythm with the left hand chords. With the first measure of “Silent Night”, I would recommend playing the left hand chord at the beginning of the word “silent” and again at the beginning of the word “night”.

C



Si lent night

strike chord
with “Si”

strike chord
with “night”

When you’re trying to pick out a melody, you will want to find the “one” chord parts of the melody first.

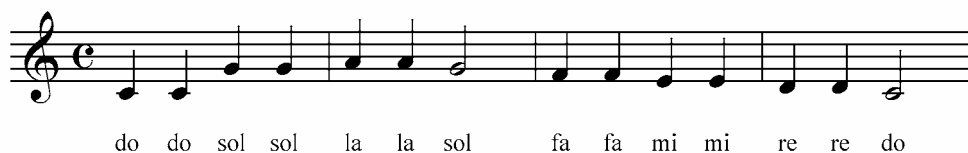
QUICK QUIZ

- “Twinkle, Twinkle Little Star”

This Mozart composition uses two of three notes in the C chord in the first measure. Can you figure out which ones?

TURN PAGE FOR ANSWER

If you guessed, “do” and “sol”, you’re right!

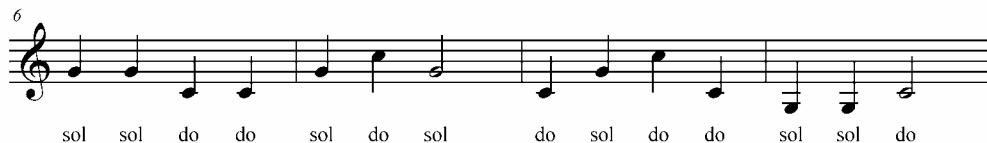


There are many melodies that start with notes in the “one” chord. Here’s a list below. Try to see how much of the melody you can figure out.

These melodies use the 1st and 5th scale degree to start.

- Star Wars Main Theme: “do, sol”
- People Will Say We’re in Love (from *Oklahoma*) “do, sol”
- Flintstones Theme” “sol, do”
- Somewhere Over the Rainbow: “do, do”
- Chestnuts Roasting on an open Fire: “do, do”

Examples of the 1st and 5th scale degree:



These melodies use the 3rd scale degree to start.

- Hello, Dolly! “mi, sol, mi, do”
- In the Mood “mi, sol, do”

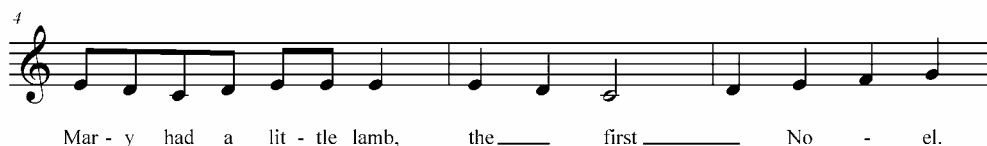
BASIC CHORD PATTERNS

- My Melancholy Baby “mi, sol, mi” (“Come sweetheart mine . . .”)
- The Impossible Dream “mi, sol”
- The Music of the Night “mi, sol”
- A Fine Romance “mi, do”
- Swing Low, Sweet Chariot “mi, do”

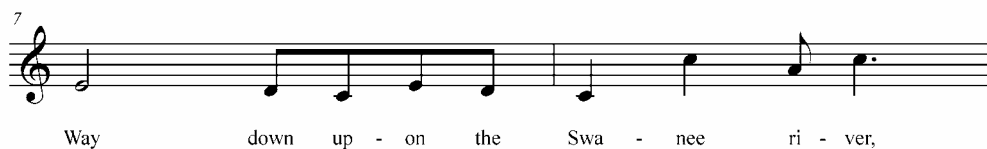
Example of Melodies starting on the 3rd scale degree:



mi re do mi re do re mi mi mi three blind mice,



4
Mar - y had a lit - tle lamb, the ____ first ____ No - el.



7
Way down up - on the Swan - nee ri - ver,

These melodies start on the 5th scale degree.

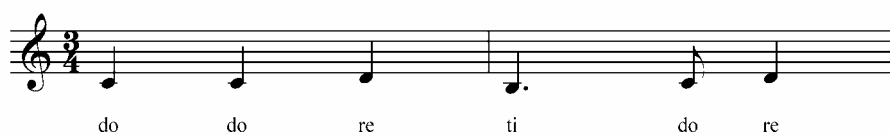
- A Foggy Day “sol, sol, sol”
- Don’t Cry for Me Argentina “sol, sol, sol, sol, sol” [intro]
- Frosty the Snowman “sol, mi”
- The Camptown Races “sol, sol, sol, mi, sol”
- It’s a Hard Knock Life (from *Annie*) “sol, sol, mi, sol, do”
- Johnny One Note “sol, mi, do”

BASIC CHORD PATTERNS

- Let's Fall in Love "do, sol, mi"
- La Cucaracha "sol, sol, sol, do, mi"
- Lush Life "Sol, do, do, do, do"
- My Way "sol, mi"
- A Nightingale Sang in Berkeley Square "sol, mi, mi, do"
- Small World (from "Gypsy") "sol, do"
- Jingle Bell Rock "do, do, do"
- Take the "A" Train "sol, mi, sol, do"
- Tomorrow (from *Annie*) "sol, mi, fa, sol, do"
- The Way You Look Tonight "sol, do"
- It's De-Lovely "sol, sol, sol, sol"
- They Call the Wind Maria "sol, do, mi, mi"
- You're a Grand Old Flag "sol, mi, do, do, do"

These melodies start on the 1st scale degree

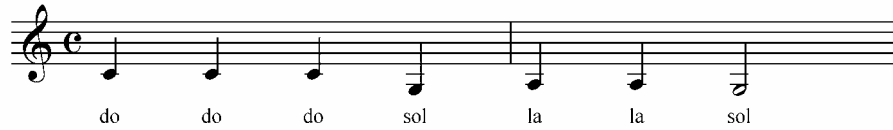
- My Country 'Tis of Thee



- Clementine



- Old MacDonald Had a Farm



Start to Recognize Scale Degrees

Right away, you will want to start collecting melodies and arranging them in your “Play By Ear” folder.

- Make lists of phrases that start on certain pitches.
- Make chains of songs that overlap, such as the “melody medley” on the following page.
- Take a song and write the lyrics out, then write the scale degree on which each phrase starts. For example:

THE FIRST NOEL

(mi) The first Noel	(ti) that was so deep.
(la) the angel did say	(mi) Noel,
(la) Was to certain poor shepherds	(mi) Noel,
(ti) in fields as they lay;	(do) Noel,
(mi) In fields where they	(la) Noel,
(la) lay tending their sheep,	(do) Born is the
(la) On a cold winter’s night	(sol)King of
	(do)Israel.

If you have trouble on a certain part of a song, you can break it down even further. For example, instead of writing:

(ti) that was so deep.

You could break it up any time you have trouble with a skip or jump in the melody:

(ti) that
(do-sol) was so deep.

You will want to write as few solfeggio syllables as possible, so that you can get used to using your ear. But you also don't want to hit wrong notes. Hitting wrong notes is death to playing by ear. You want to give yourself "strong enough training wheels that you don't fall off." Just, I would do these sheets on the computer, so that you can update them. In fact, you might even have the same song with different dates, so you can track your progress on memorizing a certain song. And then, if you're having trouble or forget a part, you can go back to one of your previous more elaborate sheets.

BASIC CHORD PATTERNS

C G G7 C

sol do ti do mi re do re mi re do do mi sol

“Clementine”

The entire song uses only the “one” and “five” chord! When you want to remember the sound of the “one” and “five” you can use this song because there’s no “four” chord in it!

C G

do mi sol sol fa mi re re mi fa fa mi re

C G C

mi do do mi re sol ti re do

“Drink to Me Only With Thine Eyes”

C G C G

mi mi mi fa fa sol fa mi re mi fa

BASIC CHORD PATTERNS

”Down in the Valley”

C G7

sol do re mi re do do mi re do re

3
sol re mi fa mi re re ti do re do

I > V > I

“The Star Spangled Banner” [“what so proudly we hailed at the twilights last gleaming?”]

C G C

sol sol mi re do ti la ti do do sol mi do

I > V > I

“Oh Little Town of Bethlehem” [“How Still we see thee lie”]

C G C

re do ti do re sol mi

The IV > V > I Pattern

After the “five” chord, the most essential chord is the “four” chord.

While the “five” chord usually leads back to the “one” chord, the “four” chord can either go to the “five” chord, as it does in this pattern, or back to the “one” chord, as it does in the next pattern.

IV > V > I

“Joy to the World” [“Let earth receive her king”]

Musical notation for “Joy to the World” [“Let earth receive her king”]. The notation is in C major, 4/4 time, and shows the IV > V > I chord pattern. The chords are F (IV), G (V), and C (I). The melody consists of quarter notes: G4, A4, B4, C5, B4, A4, G4. The lyrics are: sol la la ti ti do.

IV > V > I

“On Top of Old Smokey” [“... Smokey, All Covered with Snow”]

Musical notation for “On Top of Old Smokey” [“... Smokey, All Covered with Snow”]. The notation is in C major, 3/4 time, and shows the IV > V > I chord pattern. The chords are F (IV), G7 (V), and C (I). The melody consists of quarter notes: G4, A4, B4, C5, B4, A4, G4. The lyrics are: do la la fa sol la sol.

I > IV > V

“The Camptown Races”

Musical notation for “The Camptown Races”. The notation is in C major, 2/4 time, and shows the I > IV > V chord pattern. The chords are C (I), F (IV), and G7 (V). The melody consists of quarter notes: G4, A4, B4, C5, B4, A4, G4. The lyrics are: sol sol sol mi sol la sol mi mi re mi re.

BASIC CHORD PATTERNS

I > IV > V

“Angels We Have Heard on High” [2nd half of the “Gloria” section]

A musical staff in treble clef with a common time signature. The melody consists of the following notes: C4 (quarter), F4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter). Above the staff, the chords C, F, and G are indicated. Below the staff, the lyrics are: mi fa mi re do re sol sol.

I > IV > V > I

“Steal Away to Jesus”

A musical staff in treble clef with a common time signature. The melody consists of the following notes: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter). Above the staff, the chords C, F, G, and C are indicated. Below the staff, the lyrics are: sol sol sol la re mi.

BASIC CHORD PATTERNS

IV > I

“The First Noel” [“Angel did say”]

Musical notation for "The First Noel" [“Angel did say”]. The key signature is one flat (Bb) and the time signature is 3/4. The melody is written on a single staff. The first measure contains a half note G4 and a quarter note A4, with the chord F above. The second measure contains a quarter note Bb4, a quarter note C5, and a quarter note D5, with the chord C above. The lyrics are: do ti la sol la ti.

IV > I

“Home on the Range”

Musical notation for "Home on the Range". The key signature is one flat (Bb) and the time signature is 2/4. The melody is written on a single staff. The first measure contains a quarter note G4, a quarter note A4, and a quarter note Bb4, with the chord F above. The second measure contains a quarter note C5, a quarter note D5, and a quarter note E5, with the chord C above. The lyrics are: do ti la fa fa fa fa fa mi re do do ti do.

IV > I

“I Been Workin’ on the Railroad” [“all the live long day”]

Musical notation for "I Been Workin’ on the Railroad" [“all the live long day”]. The key signature is one flat (Bb) and the time signature is 2/4. The melody is written on a single staff. The first measure contains a quarter note G4, a quarter note A4, and a quarter note Bb4, with the chord F above. The second measure contains a quarter note C5, a quarter note D5, and a quarter note E5, with the chord C above. The lyrics are: fa fa do re mi.

IV > I > V

“Oh, Susanna” [“Oh, Susanna, Oh don’t you cry for me”]

Musical notation for "Oh, Susanna" [“Oh, Susanna, Oh don’t you cry for me”]. The key signature is one flat (Bb) and the time signature is 2/4. The melody is written on a single staff. The first measure contains a quarter note G4, a quarter note A4, and a quarter note Bb4, with the chord F above. The second measure contains a quarter note C5, a quarter note D5, and a quarter note E5, with the chord C above. The third measure contains a quarter note F5, a quarter note G5, and a quarter note A5, with the chord G above. The lyrics are: fa fa la la la sol sol mi do re do re.

IV > I > V

BASIC CHORD PATTERNS

“Auld Lang Syne” [“Mind? Should auld acquaintance be forgot?”]

F C G

la la sol mi mi do re do re

IV > I > V

“Dixie” [“Old times there are not forgotten, look away, look away”]

F C G

la la la sol la sol la ti do re mi do sol do sol mi sol

IV > I

“Battle Hymn of the Republic” [“trampling out the vintage where the grapes of wrath are stored”]

F C

la la la la la ti do la sol la sol mi sol

I > IV > I > V

“Jeanie with the Light Brown Hair”

C F C G C


la sol mi fa mi re do mi sol la do

I > IV > I > V

“The Twelve Days of Christmas” [“partridge in a pear tree”]

BASIC CHORD PATTERNS

C F C G C



sol la fa mi do re do

I > IV > I [“Where the sun shines bright on Loch Lomand”]

“Loch Lomand”

C F C




sol la do do do mi sol la sol

IV > I > IV [“Ever want to gae, on the bonnie, bonnie banks o’ Loch”]

“Loch Lomand”

F C F



fa mi re do la sol la do do mi sol la sol mi

IV > I

then

IV > V > I

“The First Noel” [“certain poor shepherds in fields as they lay”]

BASIC CHORD PATTERNS

F C F G C

do ti la sol la ti do sol fa mi

The I > IV > V > IV pattern



This pattern is used in 1950's Do-wop type songs such as "Summer Lovin'" from the musical *Grease*, or in other classic rock songs such as "Louie, Louie" and many of the early rock songs performed by Elvis Presley.

It differs from previous harmonic movement in that the "five" chord moves back to the "four" chord. Usually, the "five" chord returns to the "one" chord. Other Songs that use this pattern:

- La Bamba
- Twist and Shout
- Like a Rolling Stone
- Rock and Roll All Night

Many other songs from the 1950s and 1960s use this pattern.

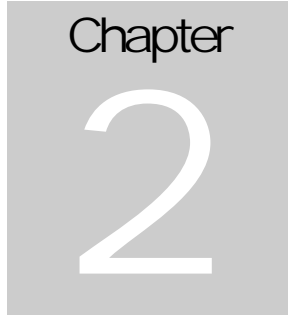
Two different types of Five Chords

The “five” chord is rarely just a “five” chord. Usually it’s a **dominant** “five” chord. A **dominant** chord, also called a **seven** chord, means that it’s a major chord with the minor 7th added.

For example, the G chord would add the note F.



Sometimes, in simple folk ballads, a “five” chord without the seventh suffices. But in most other styles of music, the “five seven” chord is more common.



Chapter 2: Introducing "two" and "six"

After the Major chords, I, IV and V, the next most common chord are the "two" and the "six" chord.

The ii > V > I pattern

The "two chord", which is minor, can be substituted for the "four" chord.

IV > V > I

Musical notation for the IV > V > I pattern in C major. The melody is written on a treble clef staff in C major. The notes are: F (quarter), G-A (eighth notes), G (quarter), A-B (eighth notes), and C (quarter). Chords F, G, and C are indicated above the staff. The lyrics "fa sol la sol la ti do" are written below the staff.

ii > V > I

Musical notation for the ii > V > I pattern in C major. The melody is written on a treble clef staff in C major. The notes are: D (quarter), E-F (eighth notes), G (quarter), A-B (eighth notes), and C (quarter). Chords Dm, G, and C are indicated above the staff. The lyrics "re mi fa sol la ti do" are written below the staff.