

Lesson 2 – Completing Open Position C Major – Zone 1

Introduction

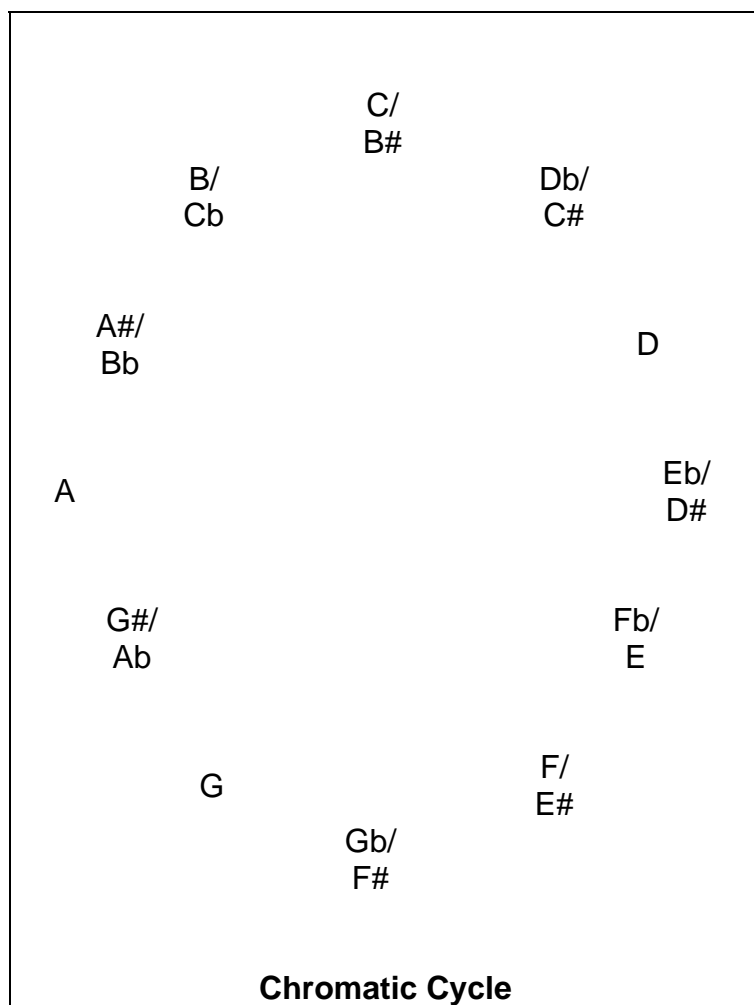
In this lesson, I complete the C major key, played in the open position, that is, up by the nut. I use open strings where possible. I also introduce the cycle of perfect 4ths and 5ths.

I want to show three minor triadic chord forms and one diminished triadic chord form. Chords based on the II, III and VI notes of the major scale are all minor chord. Chords based on the VII notes are diminished triads. In this lesson, the D minor, E minor, A minor and B diminished chords are introduced. This completes the triads in the key.

This lesson will probably take an hour, but with a student who is already experienced, it should be half of an hour.

Chromatic Cycle

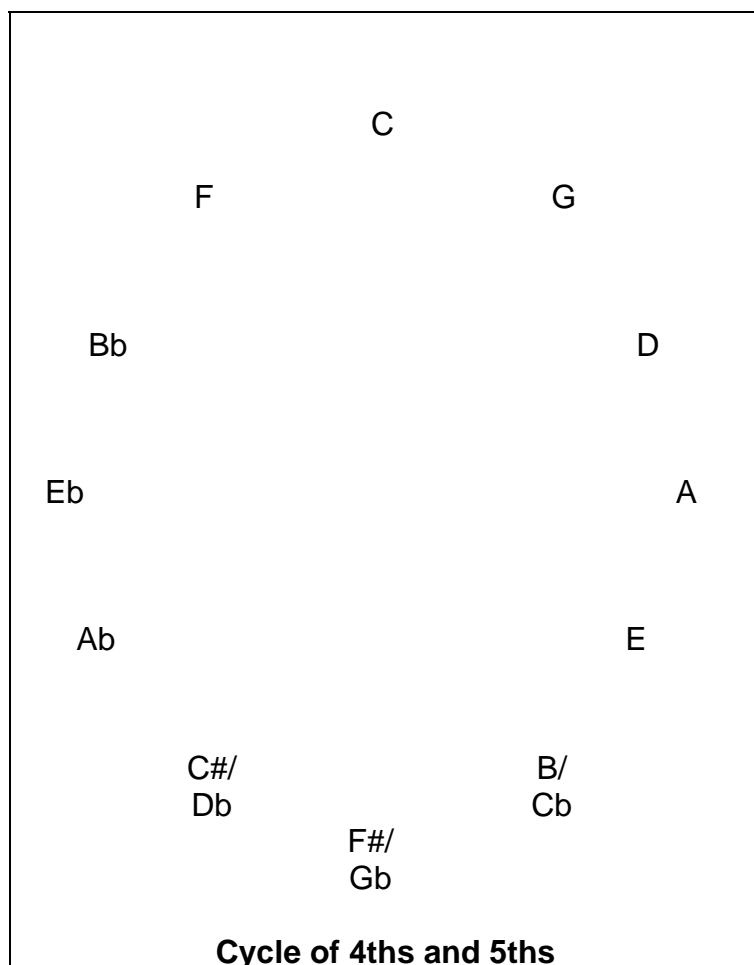
The chromatic scale is presented here as a circle, to show how the notes repeat after an octave. The common enharmonic equivalent names are given as appropriate.



Cycle of 4ths/5ths

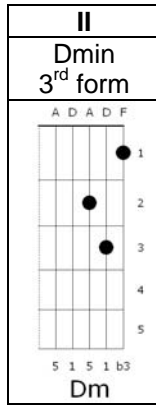
Look at the chromatic cycle above. Starting with the C# note, traverse the diagram in a counter-clockwise direction. Note the name of every fourth note, starting with F#. When there are enharmonic equivalents, use the name that is four distinct letter names away from the last chosen note. Stop when Cb is reached. This pattern is called the cycle of 4ths/5ths. It needs to be memorized, since it is foundational for understanding chord progressions. Note that the pairs F# and Gb, C# and Db, and B and Cb are enharmonically equivalent.

Below the notes are written down as another circle, the cycle of perfect 4th and 5ths. When the circle is traversed in a counter-clockwise direction, each subsequent note is a perfect 4th distance above the last. This means that it contains 4 note names, and is 5 semi-tones in size. When the circle is traversed in a clockwise direction, each subsequent note is a perfect 5th distance above the last. This means that it contains 5 note names, and is 7 semi-tones in size.

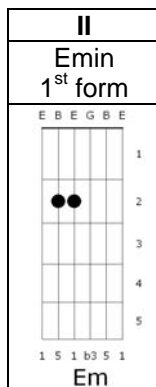


New Chord Shapes – 4 chords in C major

Note that on the chord charts, the root note of the chord is the same as the note on the degree of the scale, given as a roman numeral.



The D minor chord is held with the 6th string muted or not played, and with the 5th and 4th strings open. The 3rd string note uses “m”, the 2nd string uses “r”, and the 1st string uses “i”. The D minor chord can be used to find a melody note, and also to give a satisfying progression when used with A minor or with G major. Experiment with other chords as well.



The E minor chord is held with the 6th, 3rd, 2nd and 1st strings open. The 5th string is held with “m”, and the 4th string is held with “r”. The E minor chord can be used to find a melody note, and also to give a satisfying progression when used with A minor. Experiment with other chords as well.



The A minor chord is held with the 6th, 5th, and 1st strings open. The 4th string is held with “m”, the 3rd string is held with “r” and the 2nd string is held with “i”. The A minor chord can be used to find a melody note, and also to give a satisfying progression when used with E minor and D minor. Experiment with other chords as well.

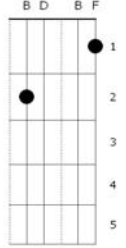
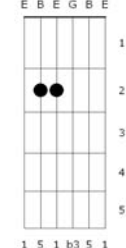
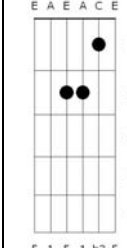
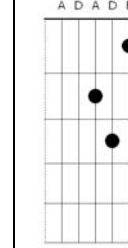
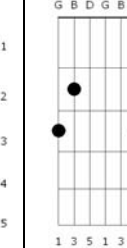
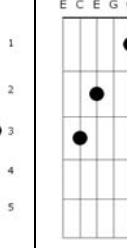
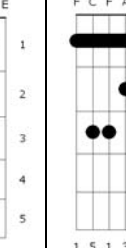
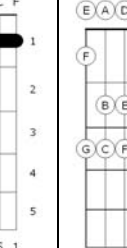
VII					
Bdim					
5 th form					
	B	D	B	F	
				●	1
	●				2
					3
					4
					5
	1	b3	1	b5	
Bdim					

The B diminished chord is held with the 6th and 4th strings muted. The 4th and 2nd strings are open. The 5th string is held with “m”, and the 1st string is held with “i”. The 3rd string is muted by touching lightly with “r”. The B diminished chord can be used to find a melody note, and also to give progression when used with C major.

Triads on major scale degrees in C Major

In the following chart, the chords of C major are shown in order of ascending perfect fourths. Later on, the rationale for this will become clear, but note that the chord forms go 5th, 1st, 2nd, 3rd, 4th, 5th, 1st. This is not an accident, as the form numbering is meant to match the cycle of perfect fourths as it is found on a guitar tuned in standard tuning.

The scale actually starts on degree I, the C note on the 5th string and ends on degree I, the C note on the 2nd string. The other notes before and after are partial scales.

Chords on Scale Degree in Ascending Perfect Fourths							Scales
VII	III	VI	II	V	I	IV	Extended Scale
Bdim	Emin	Amin	Dmin	GMAJ	CMAJ	FMAJ	
5 th form	1 st form	2 nd form	3 rd form	4 th form	5 th form	1 st form	
 <p>1 b3 1 b5 Bdim</p>	 <p>1 5 1 b3 5 1 Em</p>	 <p>5 1 5 1 b3 5 Amin</p>	 <p>5 1 5 1 b3 Dmin</p>	 <p>1 3 5 1 3 1 GMAJ</p>	 <p>3 1 3 5 1 3 CMAJ</p>	 <p>1 5 1 3 5 1 FMAJ</p>	 <p>C Major</p>

Theory

Chord Formulas

There are two perspectives on the chord formula for the minor chords in the key of C major. The first only makes reference to the C major scale. The second discusses them in the context of a minor scale for each of the minor chords. The second perspective is undoubtedly useful, but it is confusing, since we are not playing the D, E, or A minor scales. Perhaps the short answer is that the chord formula for a minor chord is root, minor 3rd interval, and major 5th interval. This can be derived from the formula for a minor scale, but they are out of scope for this discussion. Note that a minor 3rd is 3 semi-tones, and a major 5th is 7 semi-tones.

Another way of looking at the chords within the context of the key of C is that if you start with the root note, skip a note, take the next note, skip a note, and take the next note, you end up with the correct chord formula. So, in the case of A minor, take A, C, and E. For E minor, take E, G, and B. For D minor, take D, F, and A. Each one has the same chord formula. The shorthand for this formula is 1, b3, 5 for chord root note, flattened 3rd note, and 5th note.

The diminished chord can be seen in analogous fashion as a root note, in this case B, a flattened 3rd, in this case D, and a flattened 5th, in this case F. A flattened 5th is 6 semitones. The shorthand formula is 1, b3, b5.

The major chords were discussed in the last lesson. Their shorthand formula is 1, 3, 5.

Remember that some of the notes may be doubled at a different octave, and the order of the notes can be changed, but the chord still has the same name, and for most purposes function musically in the same manner.

Chords on each degree of the scale

Remember that the I, IV and V degrees of the major scale have a chord built on top of them using the major chord formula of 1, 3, 5, in some inverted order. Also, remember that the II, III, and VI degrees of the major scale have a chord built on top of them using the minor chord formula of 1, b3, 5. Finally, remember that the VII degree of a major scale has a chord built on top using the diminished chord formula of 1, b3, b5.

Strumming with Chords

3 / 4 time

Play the following chord progressions at a slow tempo. Strum downwards from the 6th string to the 1st string, with three downward strums per chord. Do not play notes that are not part of the chord. There will be no note name at the top of the string if it is not used or muted. Strum on the chord symbol and once more for each forward slash. The three strums mean three beats and then a chord change. Give a little bit more emphasis to the 1st strum of the three. This is probably the second most common rhythm, and is called waltz time.

The diagram illustrates eight different fretboard positions for triadic chords in C major, arranged in two rows of four. Each diagram shows a six-string guitar fretboard with strings numbered 1 to 6 from top to bottom. Notes are indicated by black dots, and fingerings are shown with numbers 1-5. Forward slashes (//) indicate strumming directions, and dashes (-) indicate muted strings.

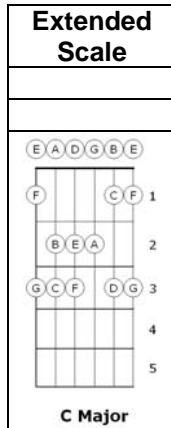
- I (Cmaj):** Notes E (1), C (2), G (3). Fingering: 3 1 3 5 1 3.
- VI (Am):** Notes A (2), C (3), E (5). Fingering: 5 1 5 1 b3 5.
- II (Dm):** Notes D (2), A (3), F (5). Fingering: 5 1 5 1 b3.
- V (Gmaj):** Notes G (3), B (2), G (3). Fingering: 1 3 5 1 3 1.
- IV (Fmaj):** Notes F (1), C (3), A (2). Fingering: 1 5 1 3 5 1.
- III (Em):** Notes E (2), G (3), B (2). Fingering: 1 5 1 b3 5 1.
- VII (Bdim):** Notes B (2), D (1), F (3). Fingering: 1 b3 1 b5.
- I (Cmaj):** Notes E (1), C (2), G (3). Fingering: 3 1 3 5 1 3. The 6th string is muted.

These are all of the triadic chords in C major, and with the possible exception of the B diminished, are found in many, many tunes.

Playing Scales

Starting at the C note on the 5th string, play this extended C major scale up to the D note on the 2nd string. However, do it in this fashion:

C, D, E, F; D, E, F, G; E, F, G, A; F, G, A, B; G, A, B, C; A, B, C, D, D. The start at the C note on the 2nd string, and play this: C, B, A, G; B, A, G, F; A, G, F, E; G, F, E, D; F, E, D, C; E, D, C, B. This is a technical exercise designed to make you more familiar with the scale notes.



Practice Piece: She'll be Coming 'round the Mountain

The old children's song, She'll be Coming 'round the Mountain, is presented again here, with easy chords, melody notes, a notation called tablature and standard music notation.

Tablature give you a way of showing the frets to hold down, in a more compact and versatile manner than found with chord charts only. It shows the six strings of the guitar laid out horizontally. The 6th string is at the bottom, and the 1st string is at the top. Numbers are used to indicate the fret to be held down on each string. No number means do not play the string. A "0" means the open string, a "1" means the first fret, and so on. Vertical bar lines, "|", mean the end of a rhythmic unit called a measure. The more precise details of indicating how long to hold a note will be deferred for now. Since almost everyone knows this tune, it should be possible to get the timing by ear.

Standard notation is highly versatile, but more difficult to learn than tablature. If you know how to read it, it is great. However, tablature is designed for stringed instruments, and will be more widely known by guitarists. I will not attempt to teach standard documentation. I found it very hard to learn, and expect others would have the same difficulty. It is doubly hard on the guitar, since every note can appear in multiple places.

She'll be Comin' 'round the Mountain

0

Transcription: Michael Zimmer

The musical score is presented in two systems. The first system covers measures 1 through 5, and the second system covers measures 6 through 10. The music is written in 4/4 time with a tempo marking of quarter note = 100. The key signature has one flat (B-flat). The guitar part includes chord diagrams for C, Am, G, and F. The bass part provides a rhythmic accompaniment with fingerings and fret numbers.

System 1 (Measures 1-5):

- Measure 1: Treble clef, 4/4 time, tempo = 100. Chord diagram for C (x02231).
- Measure 2: Treble clef, 4/4 time. Chord diagram for C (x02231).
- Measure 3: Treble clef, 4/4 time. Chord diagram for C (x02231).
- Measure 4: Treble clef, 4/4 time. Chord diagram for C (x02231).
- Measure 5: Treble clef, 4/4 time. Chord diagram for Am (022310).

System 2 (Measures 6-10):

- Measure 6: Treble clef, 4/4 time. Chord diagram for G (023200).
- Measure 7: Treble clef, 4/4 time. Chord diagram for C (x02231).
- Measure 8: Treble clef, 4/4 time. Chord diagram for F (113321).
- Measure 9: Treble clef, 4/4 time. Chord diagram for G (023200).
- Measure 10: Treble clef, 4/4 time. Chord diagram for C (x02231).