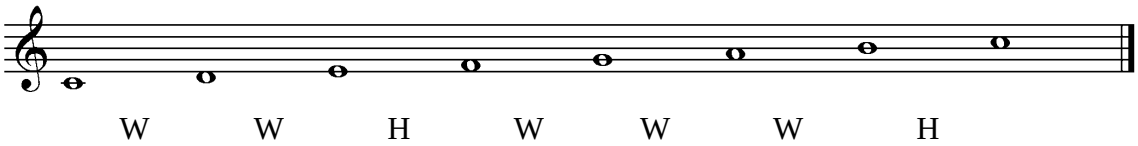
Intervals, Diads, and Triads, Part I

IMPORTANT NOTE: You need to complete the C Major Scales lessons first. We're going to use C major for these examples. And you need to know the major scale on your guitar as well as the notation and tablature. Again, make sure you complete the C Major Scale lessons before moving on.

Scales sound the way they do because of the order of the notes and the distances between the notes. The distance between the notes is called an interval. Each interval has a name, and they can be associated with the number of half-steps between them.

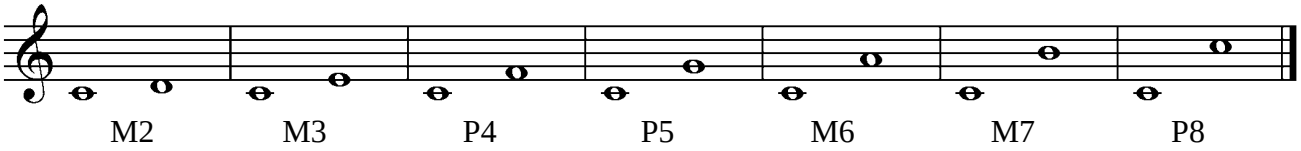
Below are the whole steps and half steps of the major scale. The scale below is C major, although the order of steps between notes is the same for all major scales.



Intervals

An interval is defined as the distance between two notes, in half-steps. On your guitar, a half-step = one fret, and a whole-step = two frets. There are 7 notes in the major scale and we can define the distance between any two notes based on the number of steps between them. We have names for each of the 12 half-steps. The names of the intervals consist of the quality, i.e. major, minor, perfect, diminished, and augmented, combined with a number 1 – 7, (extending to 9, 11, 13th for chord extensions, found in jazz, progressive, fusion). For example Major 3rd, Minor 7th, Perfect 5th. Some intervals might also be referred to as flat or sharp, such as flat 3rd, or sharp 4th.

Since we're using C major, lets start with the distance between C and the other notes of the scale. Looking at the first pair of notes, C an D, they are 2 half-steps or 1 whole-step away from each other. We call this interval a Major 2nd interval. So, the note D is a major second above C, and C is a major second below D. Let's look at two more notes, C and G, in m4. C and G are 7 half-steps away from each other, G is Perfect 5th above C.



Below are the names and number of steps for the intervals within one octave. There are 12 half-steps in each octave in the Western music system, so we have 12 different intervals.

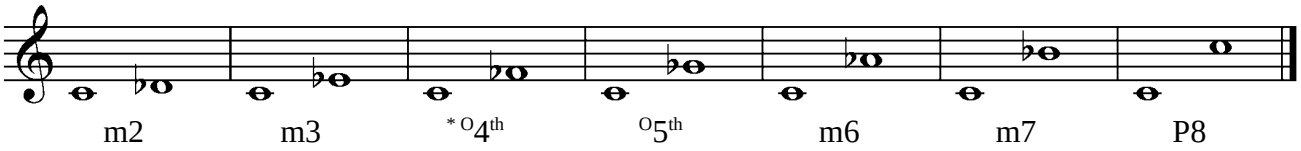
half-steps

1	= minor 2nd
2	= Major 2nd
3	= minor 3rd
4	= Major 3rd
5	= Perfect 4th

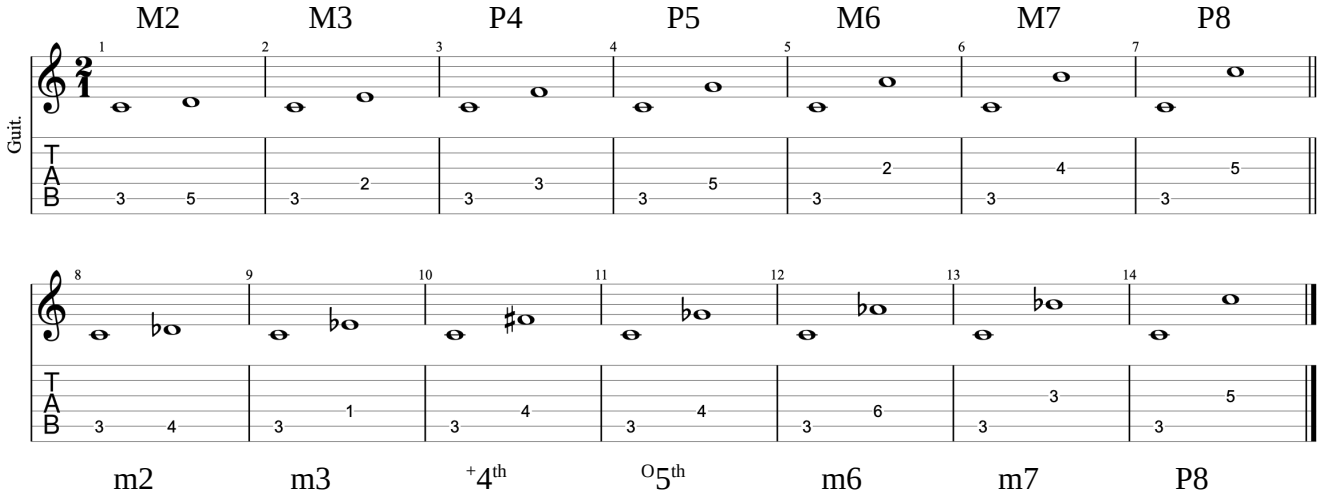
6 = augmented 4th / diminished 5th
7 = Perfect 5th
8 = minor 6th
9 = Major 6th
10 = minor 7th
11 = Major 7th
12 = Perfect 8ve (Octave)

Symbols used for major, minor, perfect, diminished and augmented intervals:

major = △, minor = m, perfect = p, diminished = o, augmented = +



Intervals on the guitar above the note C within one octave.

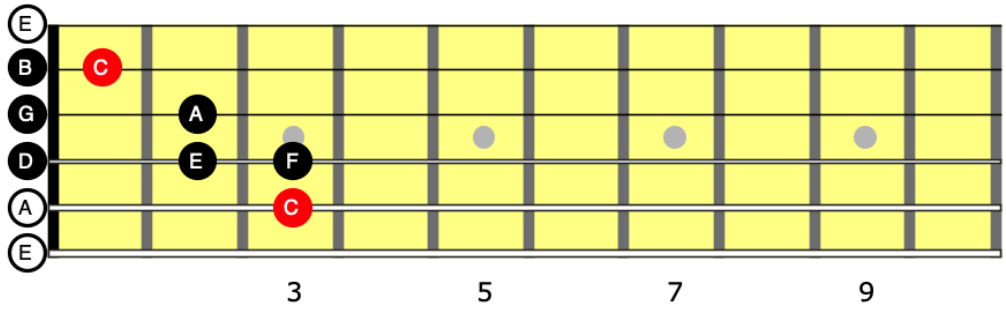


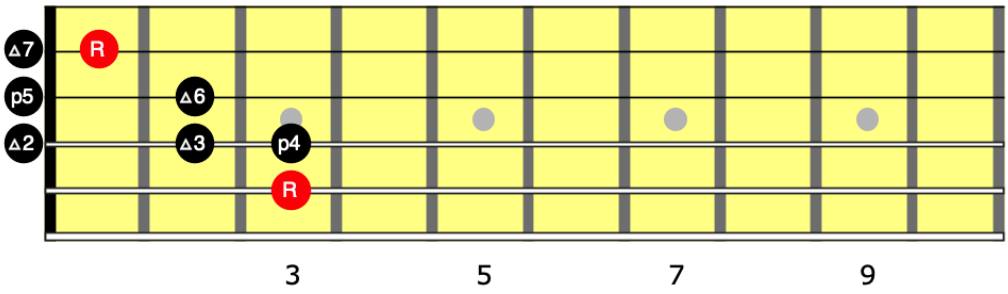
** Memorize the shapes of the intervals. Play them all over the neck. Combining different intervals with different root notes is a good way to hear them in context. For example moving up the scale while playing the appropriate 3rd, 5th, or 6th is very common.

** Memorize the sound of the intervals; **play the two notes consecutively, and then simultaneously**. Some intervals are pleasing when played together and are said to be consonant, while others sound tense and are said to be dissonant.

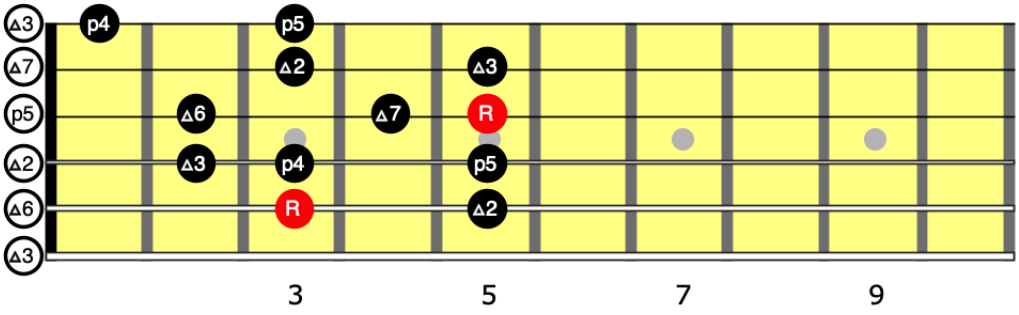
Fret diagrams with note names and intervals.

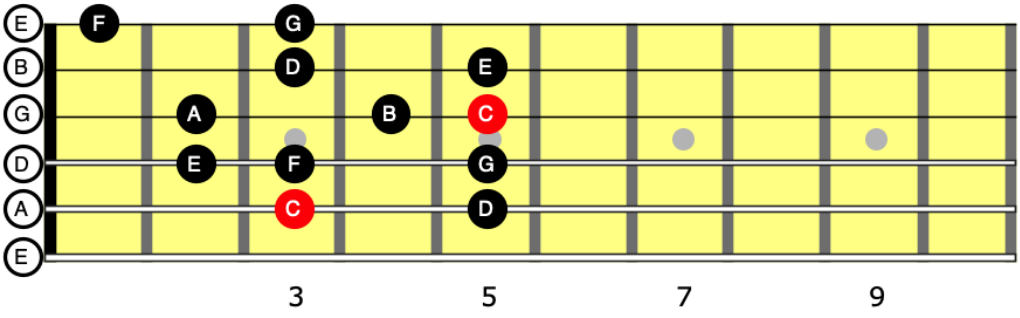
Open Position



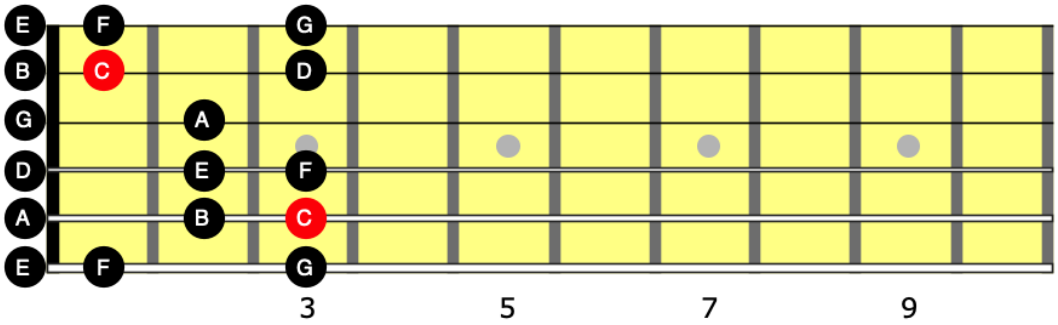


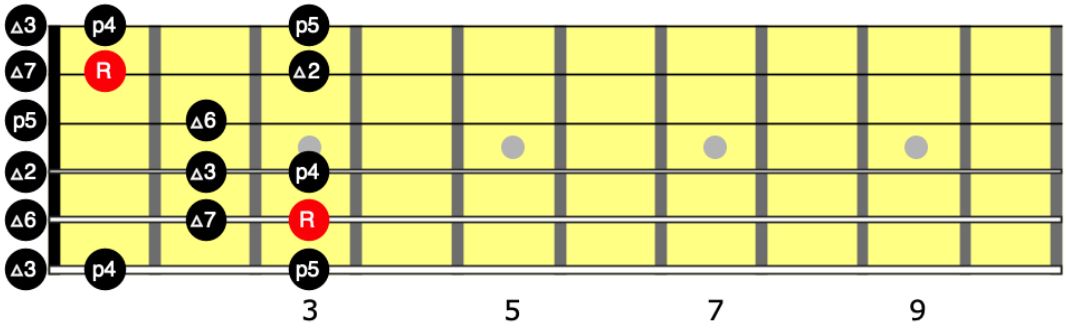
3rd Position



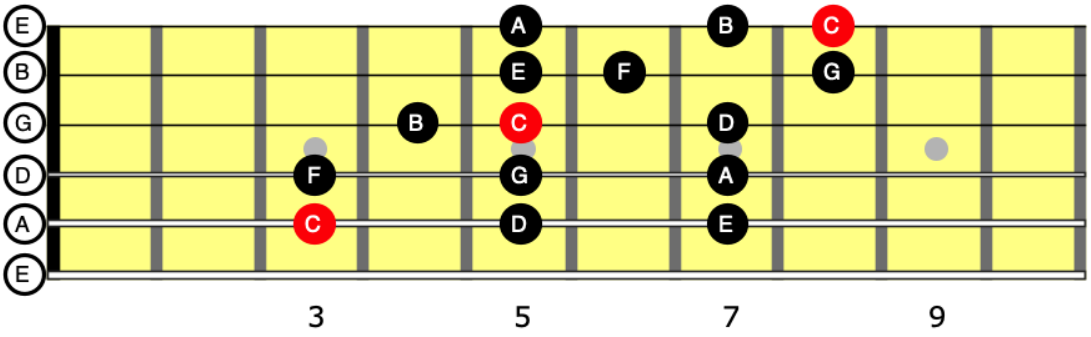


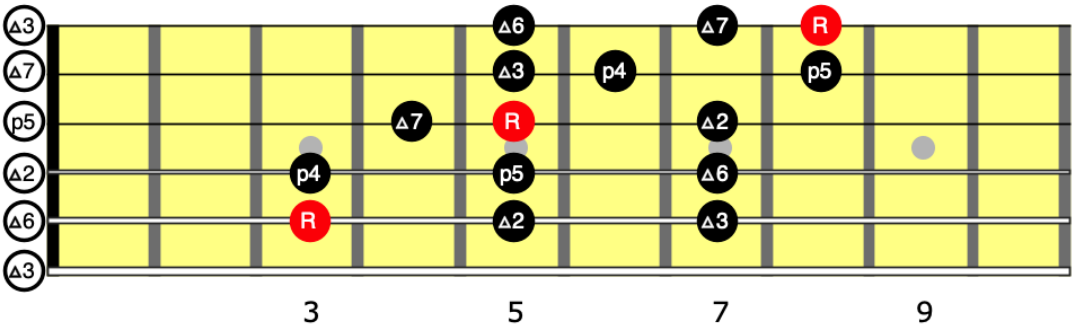
Extended Open Position



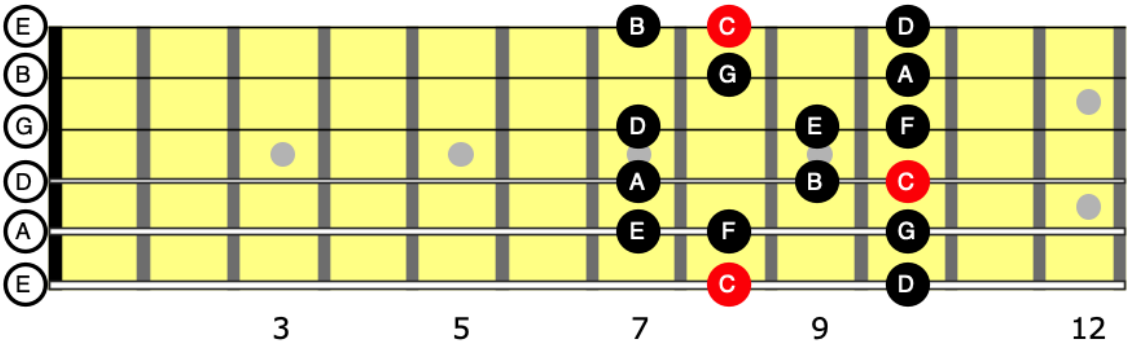


3 Notes Per String





8th Fret


E
B
G
D
A
E
B
C
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G
A
D
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F
A
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C
E
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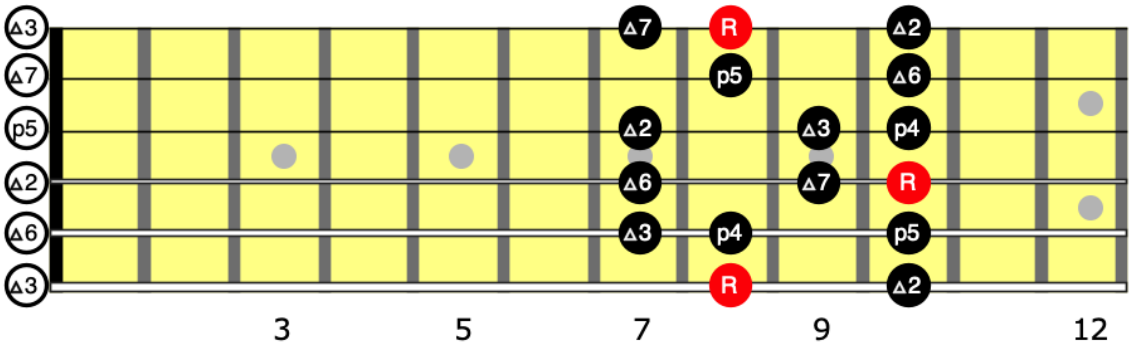
G
C
D
3
5
7
9
12


Δ3
Δ7
p5
Δ2
Δ6
Δ3
Δ7
R
Δ2
p5
Δ6
Δ2
Δ3
p4
Δ6
Δ7
R
Δ3
p4
p5
R
Δ2
3
5
7
9
12

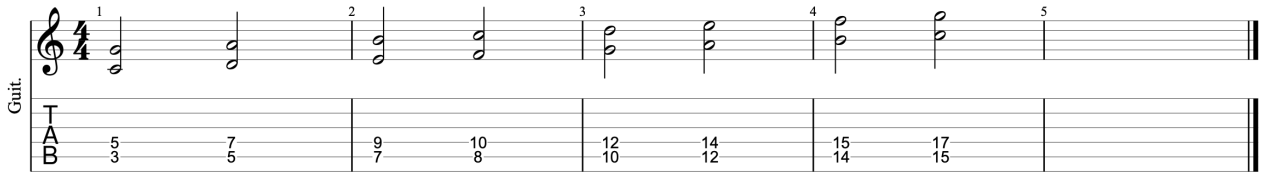
Diads

When two notes are played simultaneously they are called Diads. Diads are the simplest type of harmony. Without being too broad, harmony can be defined as playing two or more notes simultaneously.

All 12 intervals and diads are common in music. However there are a few that are more common so we can start with those. We can harmonize the C major scale using consistent intervals, for example using major and minor 3rds, or P5ths. We'll do it horizontally up the neck, using the 5th string for the root of each diad. (Go back to C Major Scale lessons if you don't know this)

The Perfect 5th

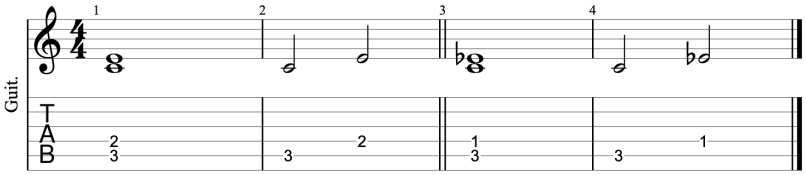
Very common on guitar. Especially Rock and Metal. The diad is often labeled with a 5, i.e. C5. All the diatonic chords of any key have a P5th interval except the diminished vii chord, which has a diminished 5th. Below is the harmonization of the C major scale in 5ths.



C5 D5 E5 F5 G5 A5 B°5 C5

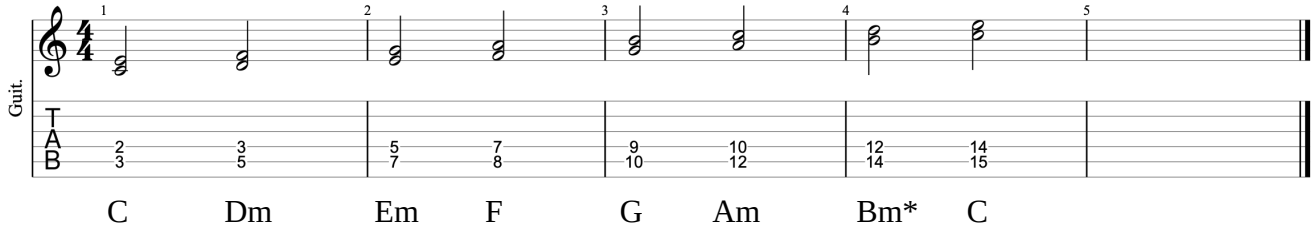
The Major and Minor 3rds

The 3rd can be either Major or Minor. A Major 3rd is 4 half-steps and a minor 3rd is 3 half-steps. The minor 3rd is sometimes referred to as a flat 3. It is flat compared to the Maj 3rd – its 1 half-step lower.



C Major C Minor

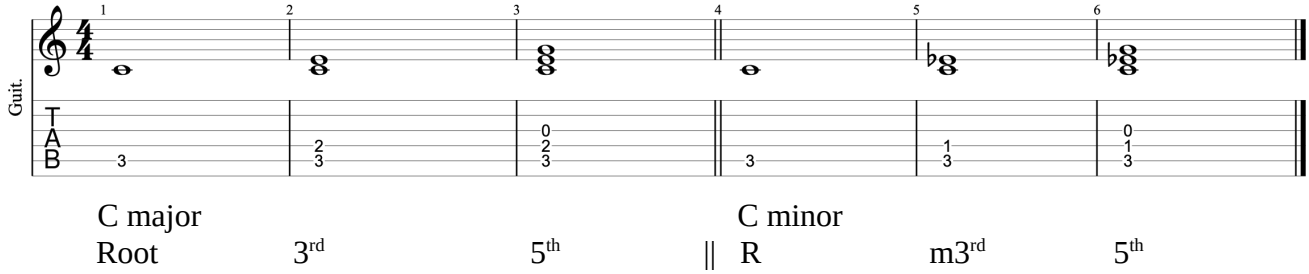
The 3rd is what gives a chord its major or minor quality. Since the 3rd interval always happens to be every other note in the scale, a 3rd up or down from any note in the scale is just two notes away. If we follow the diatonic notes and add a 3rd to every note, we harmonize scale is a particular fashion. The pattern of 3rd diads are also the pattern of the chords of the major scale. Major – Minor – Minor – Major – Major – Minor – Diminished.



* The diminished chord here is labeled as minor, Bm, because there is no 5th here. The 5th of the diminished chord is a º5th, also referred to as flat 5.

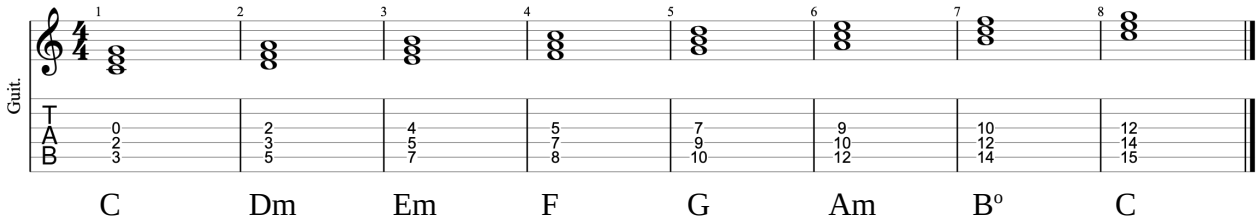
Triads

Triads are three-note chords. The most common chords to play will be 3-note diatonic chords – even if the chord has six notes like a barre chord, it may have only three different pitches. Our Western system is historically based on 3-note harmonization, and is referred to as tertian harmony. Tertian meaning 3. Although music today often extends tertian harmony we still owe our basic musical language to the Western tonal system. Tertian harmony is created by harmonizing a note using stacked 3rds above it. In other words, we're going to stack one 3rd above a note, and then another 3rd above that. Or add a 3rd above the Root, then a Perfect 5th above the Root.



C Major = C – E – G
C Minor = C – Eflat – G

Harmonizing the C Major scale with the diatonic notes, using tertian harmony.



The triads above are all in Root Position, which means that the lowest note of the chord is also the root of the chord. They are also called "closed voice" because the distance between the lowest and the highest notes of each triad, between the root and the 5th, is the smallest interval possible for those two notes. This is not always the case, the lowest note is not always the root and the order of the notes does not always have to be R-3rd-5th. We'll cover this in another section.