The Major Scale

The scale is one of the most fundamental elements of music. Chords, melody, and harmony are all derived from scales. A scale is a groups of notes with a specific pattern of intervals between the different notes. Scales typically have 7 notes and repeat, higher or lower.

The most fundamental scale is the Major Scale. All major scales have the same interval pattern. Intervals are the distance between two notes, typically whole steps (2 frets), and half steps (1 fret). The Major Scale is the reference scale for all other scales so its important to understand. The major scale has 7 unique notes which can be played in any order, as long as it adheres to the overall pattern of whole steps and half steps.

Learning Scales on the Guitar

As a musician and a guitarist, its important to learn scales. Even if you aren't planning on taking a solo any time soon learning scales helps your finger dexterity, timing, and overall playing and musicianship. And deepens your understanding of music. Learning scales on guitar is aided by the fact that the pattern for any scale is exactly the same for all scales of the same type that start on the same string. This makes it easier to move from one scale to another simply by moving the position of your hand, starting on a different note, and playing the same pattern. You should memorize scale patterns and transpose them to different positions.

Major Scale Patterns

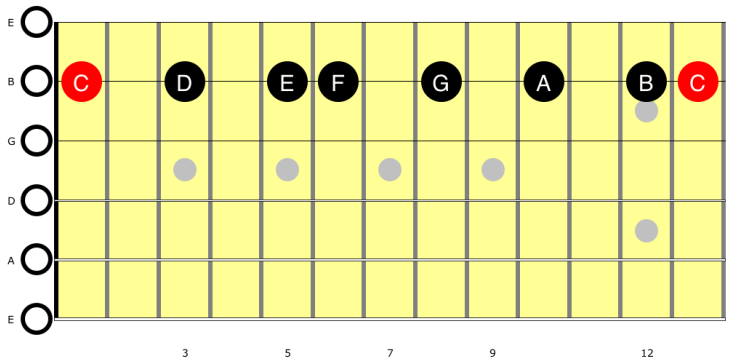
We can follow a set pattern of steps between notes to create any major scale (or any other scale) starting on any note we choose. We're going to use a pattern of whole steps and half steps.

Whole step = 2 frets
Half step = 1 fret

The pattern for the major scale in steps is:

Steps:	Whole	– Whole	– Half	– Whole	– Whole	– Whole	– Half
Frets:	2	2	1	2	2	2	1

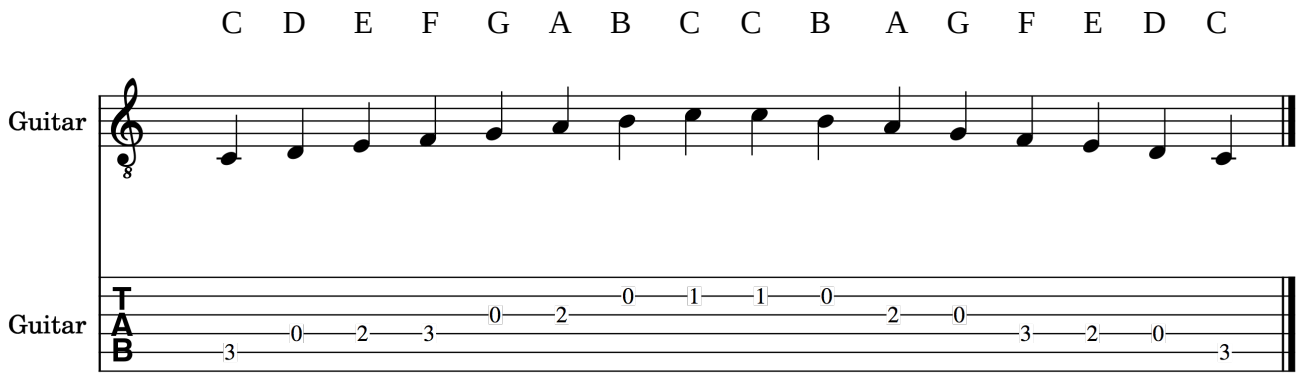
Looking horizontally at the guitar you can clearly see the intervals between notes on the same string. Play through the C major scale starting on the first fret C of the second string up to the C one octave above on the 13th fret. You can clearly see the pattern of steps and frets. W – W – H – W – W – W – H. Also notice the distance between each note and adjacent notes. There are two half steps, between B-C and between E-F. The pattern of steps is responsible for creating the easily recognizable sound of the major scale; Do Re Mi Fa So La Ti Do. As you play through this, say the steps as you go. Do it again, and say the note names. Repeat it again, and sing the notes.



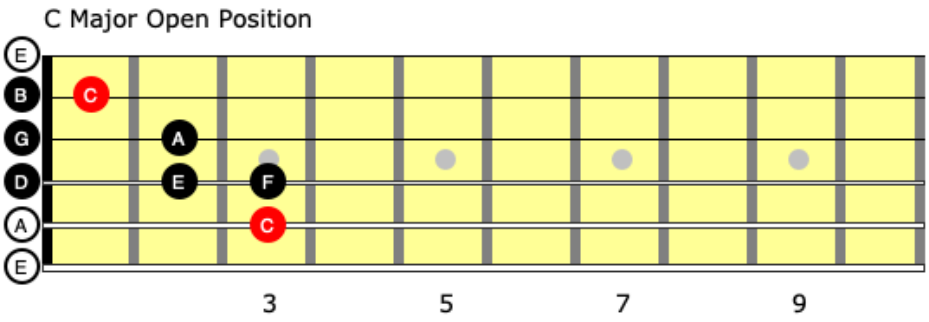
Start memorizing the major scale pattern and the notes of the C major scale. The notes of the C major scale are C – D – E – F – G – A – B – C. Memorize them on the fretboard and in standard notation as you proceed through these examples.

We often talk about the notes of a scale by the order in which they appear when ascending from one octave to the next. The first pitch is called the Root and the other pitches are given numbers based on their order. These are referred to as scale degrees. For example, the note G is the fifth scale degree of C major, because its the 5th note of the scale.

Note Names:	C – D – E – F – G – A – B – C
Scale Degrees:	R 2 3 4 5 6 7 R
Steps:	w w h w w w h



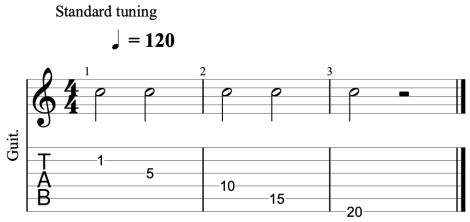
Above, the C major scale in the open position one octave, from C to C, in both standard and tablature notation. The fretboard diagram below shows the fretboard pattern. The root of the scale is marked in red. This position is referred to as the open position due to the use of the open strings. All of the open string notes of the guitar, in standard tuning, are found in the C major scale. The fingering for the open position varies, but its good to use the standard “one finger – one fret” rule. If the note is on the first fret, regardless of string, play with the first finger, second fret play with second finger, third, and fourth… etc.



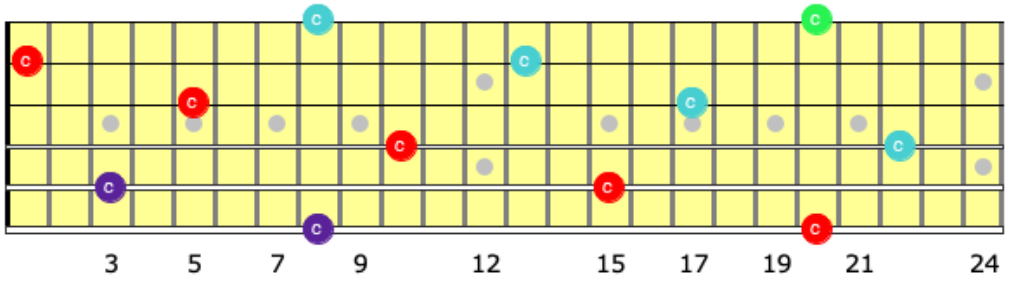
The two C notes, marked in red share the same note name, but their frequency is different. The C on the first fret of the B string is one octave higher than the C on the third fret of the A string. It vibrates exactly twice as fast as the lower note, and therefore sounds twice as high. The guitar, as you will learn, covers many octaves, and there are different places on the fretboard to play the same note. These different positions can seem confusing at first. Don't sweat it, learning the fretboard takes time. Memorize as you go. Learn new music continually. As you learn new music, memorize it.

On the staff below notice that the half note C is written as the same pitch in standard notation, but played on different strings and different frets as notated in the Tablature. In standard notation it is not always marked, or clear, where on the fretboard to play. Tablature is a great tool for notating the exact frets. You should get familiar with both forms of notation.

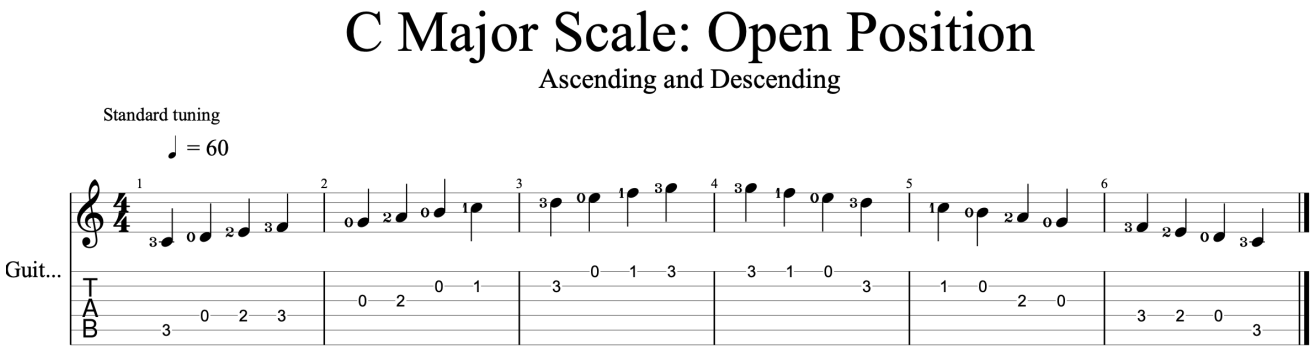
C: Same Pitch Across Fretboard

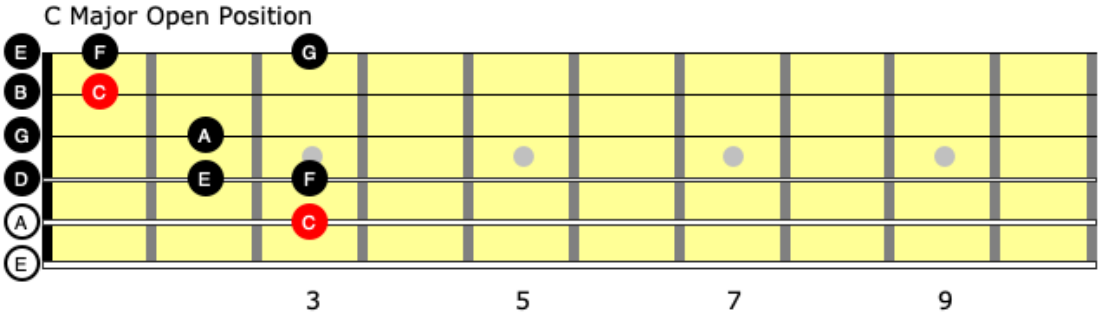


The diagram below shows all of the C notes on the fretboard. The different colors represent the notes with the same exact pitch. Play these notes and listen to each pitch. You'll notice a change in the sound. As the notes move up the neck and down the strings, the sound changes from bright to darker. This is a change in Timbre, or tone quality. The thinner strings sound brighter and have more high frequencies, whereas the lower strings sound warmer and have more mid-range frequencies. You can use this change in Timbre when deciding where on the neck to play.



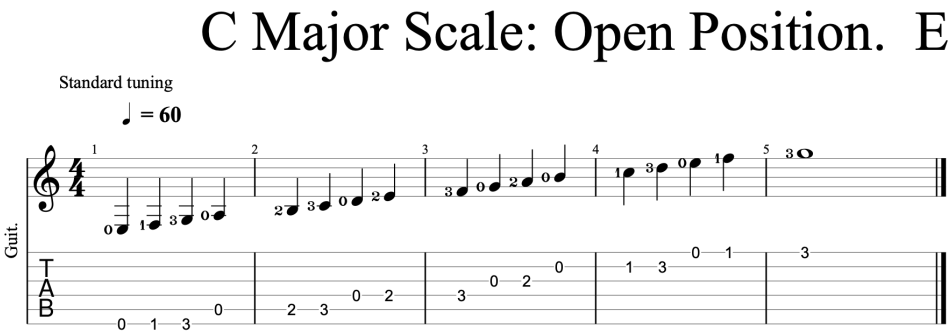
Below is the C major scale in open position from C – G. The major scale extends above and below the root note to repeat the cycle of notes in the next octave, and can continue up and down the fretboard until you run out of frets. Play through this example with the fingerings given; the little numbers next to the notes.

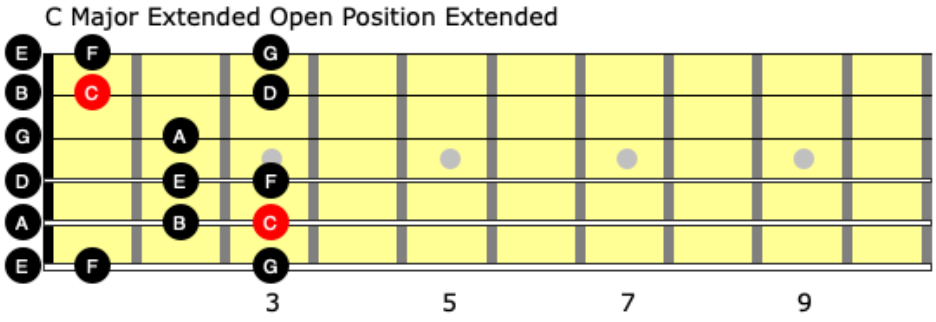




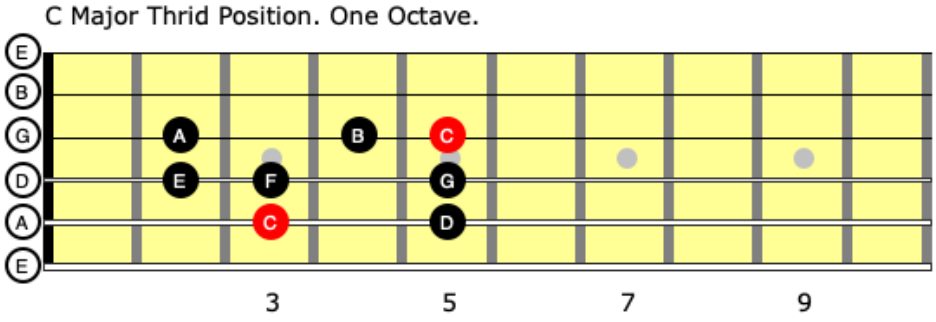
You should be able to play this example forward and backward using the suggested fingerings. Practice this with a metronome. Set the quarter note to 60 bpm and gradually speed up. Focus on smoothness between strings, even rhythm, and economy of motion. Repetition is key in learning to smoothly play scales.

This example of the first position C major extends the scale down to the low E on the 6th string and up to the high G on the 1st string. It might help to learn the notes on each string one at a time.

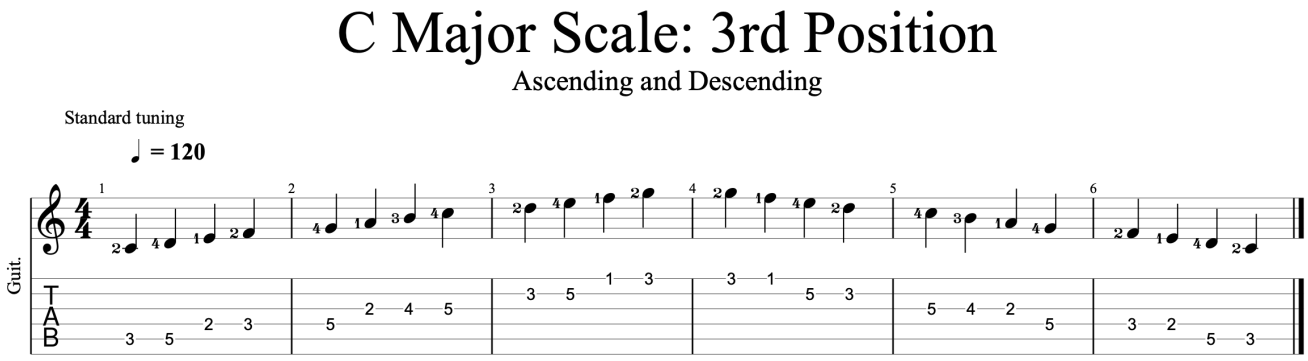


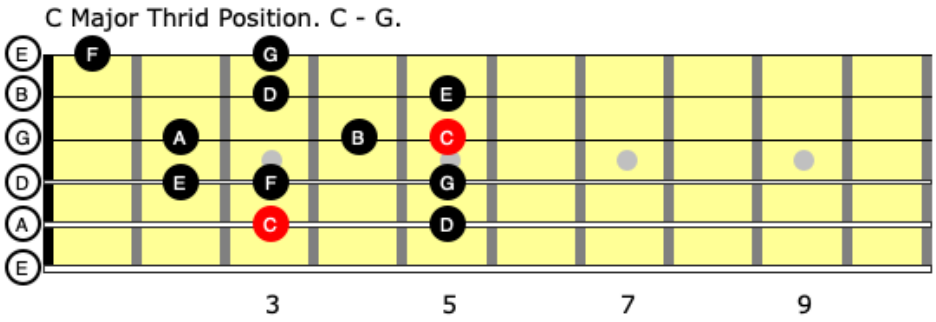


In the next few examples we're not going to be using the open strings. We're going to start with C on the 3rd fret of the A string, and we'll be fretting all of the notes we play. Use the fingers given in standard notation below. All major scales whose root notes are on the 5th string follow this pattern. The shape is movable up and down the fretboard.

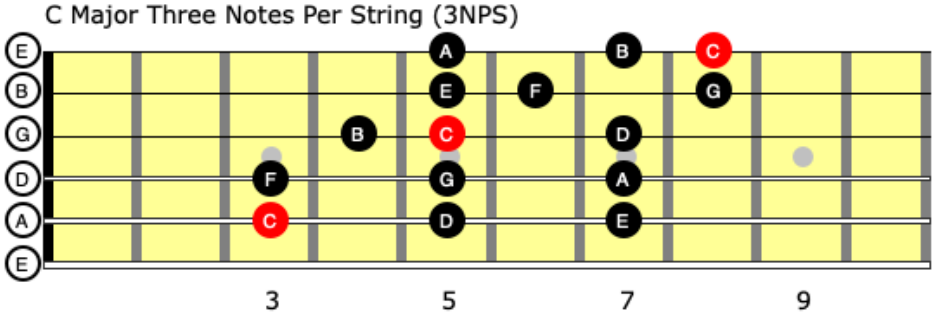


Now extend the scale into the next octave above from C – G as shown below. This shape can be used in conjunction with other shapes of the C major scales in different positions to cover a lot of territory across the fretboard. Try connecting this shape and the open position.



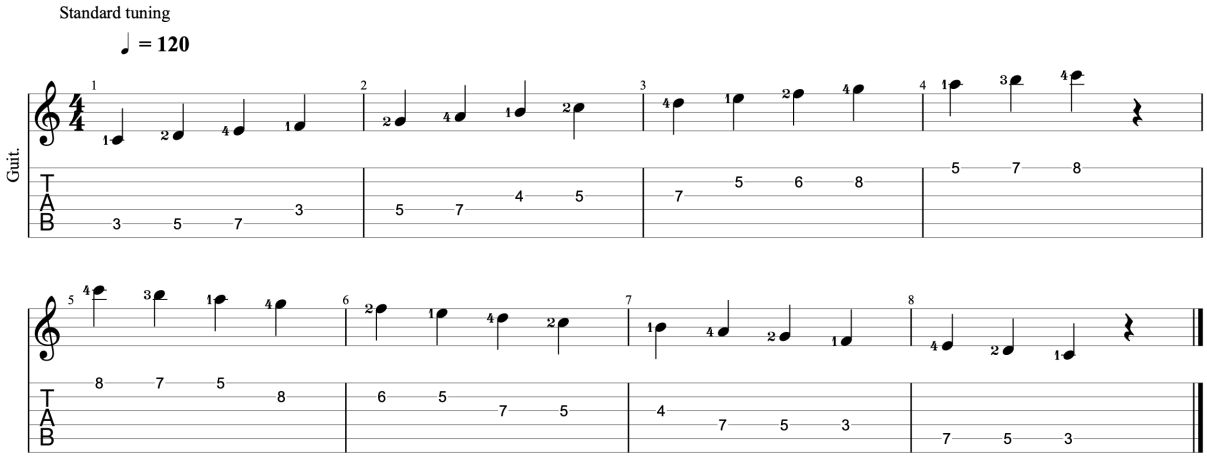


The following shows a three-note-per-string (3NPS) pattern that spans two full octaves. The fingerings for 3NPS pattern can include some wide stretches. The most economical are included. Once you get used to them they will come in handy, so take the time to play them slowly and focus on accuracy. Also, memorize the notes as you go along. Say them as you play them.



C Major Scale: 3 Notes Per String (3NPS)

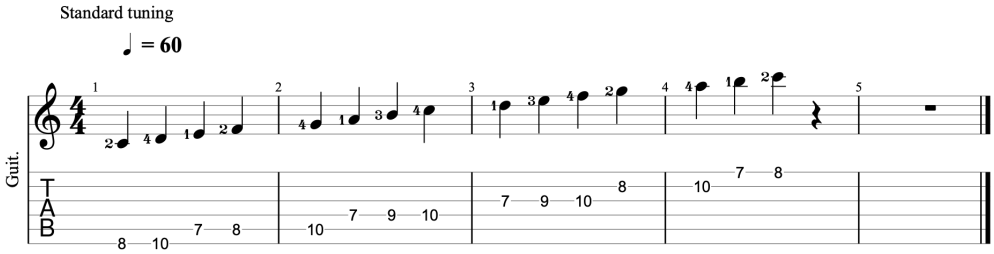
Ascending and Descending

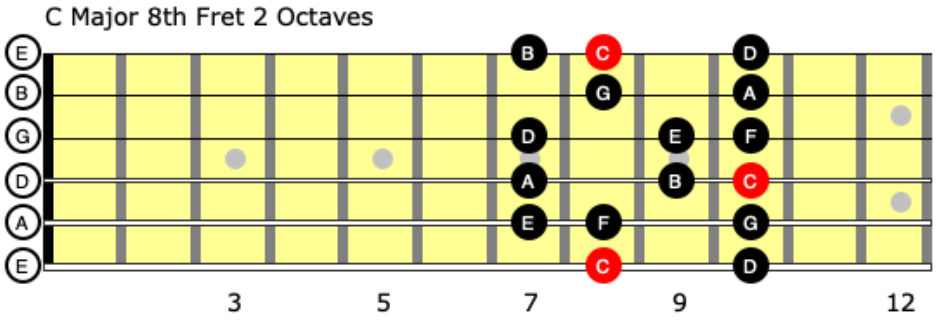


C Major 8th Fret Two Octaves. For major scales whose root note is on the 6th string. The fingerings given are the most common.

C Major 8th Fret

2 Octaves





C Major On Each String.

It's important to know the notes and intervals on the fretboard. Visualizing the fretboard horizontally is of great value. It helps in memorizing notes, intervals, scales, positions, and horizontal motion.

The following is the C major scale starting on each of the open strings. Since ach of the open string notes is part of the C major scale, you can start the scale at the open note on any string and follow the sequence of notes. C – D – E – F – G – A – B – C. Notice that the pattern of whole steps and half steps starts and repeats on the root C. W – W – H – W – W – W – H.