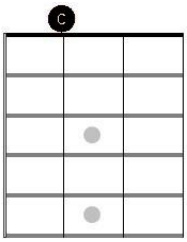
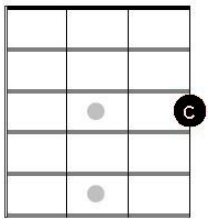
This lesson assumes that you are using a ukulele tuned to the notes G, C, E and A.

Notes

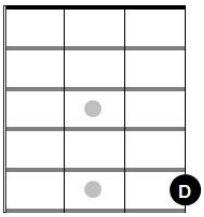
There are only 12 musical **notes**. At least there are only 12 note *names*, which repeat again and again as the notes go higher in pitch. For example, play the open third string, the lowest note on your ukulele.

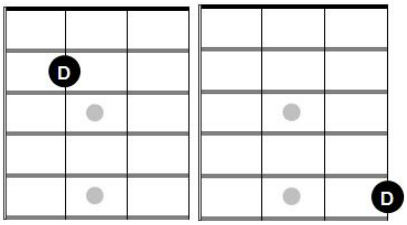




This isn't the only C. If you play the first string at the third fret, that's another C, higher than the first. Listen to them, they definitely sound similar don't they?

If you play the low C and then a different note, like this one, which happens to be called D, they don't sound at all similar.

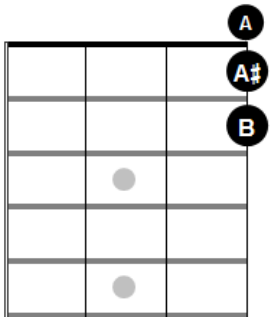


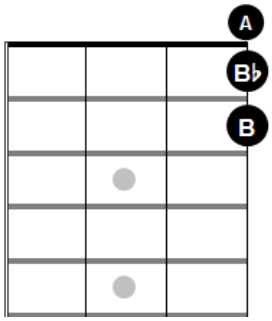


If you play a low D and then a high D, they do sound similar.

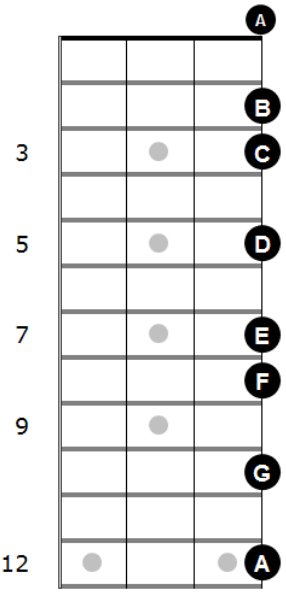
That's why we only need 12 note names, because those 12 notes repeat as you get higher. So we've already seen that some of our note names come from letters of the alphabet. They go from A to G.

The first string is tuned to A. B is played at the second fret. So what about the first fret? Well, that note has two names. It's called A sharp, and it's also called B flat. The word sharp in music means "higher than", and is written with a hashtag symbol (#). The note at the first fret on the first string sounds slightly higher in pitch that the A at the open first string, so that's why it is called A sharp (A#). That same note also sounds slightly lower in pitch than B at the second fret. In music, we use the word flat, which means "lower than". We use a lower-case b as a symbol for flat. So A sharp is also called B flat.



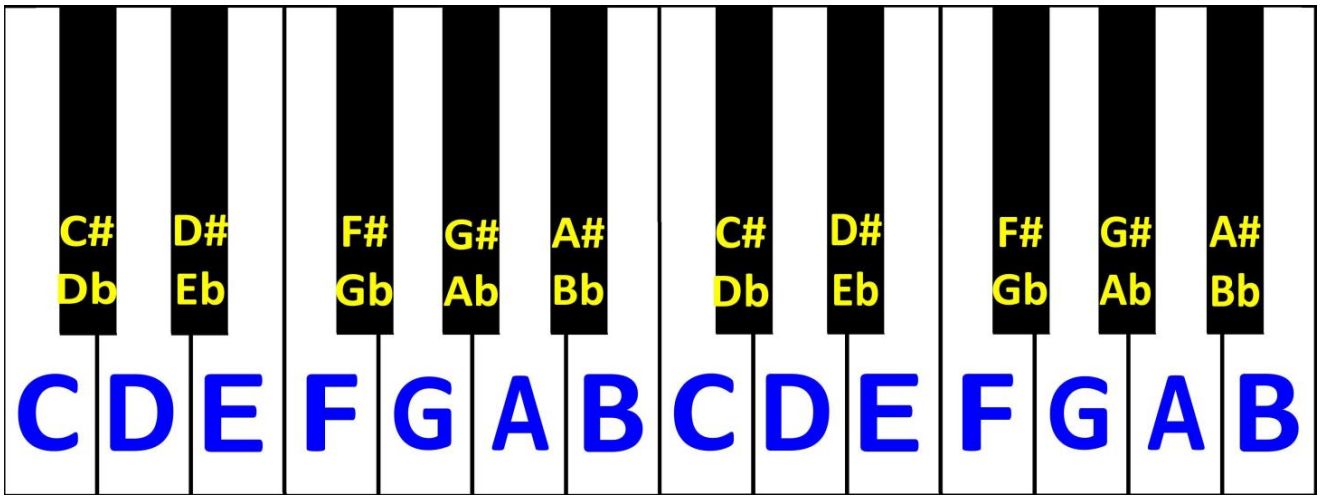


Here's a sequence of notes on the first string, but only the notes named after letters of the alphabet – skipping the sharps and flats. We say that the A at the twelfth fret is one octave higher than the open A. Octave comes from the Latin word for eight. Count the notes (ignoring the sharps and flats) from low A to high A, and you get the number 8.



Can you see that some of these notes are two frets apart, while other are one fret apart? We already know that B is two frets higher than A, because A#/Bb is between them. But look at this – C is one fret higher than B. That means that there is no such note as B# or Cb. Also, The note E at the seventh fret goes straight to F at the eighth fret. Once again, there is no E# or Fb.

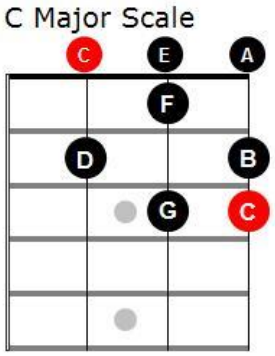
We can see this a lot more clearly on the piano keyboard. The white keys are the notes named after letters of the alphabet, from A to G. The black keys are the sharps and flats. Notice the gap in the black keys between B and C, and also the gap in the black keys between E and F. This gives the piano keyboard a distinctive pattern of a group of two black keys followed by a group of three black keys, and that pattern repeats up and down the octaves.

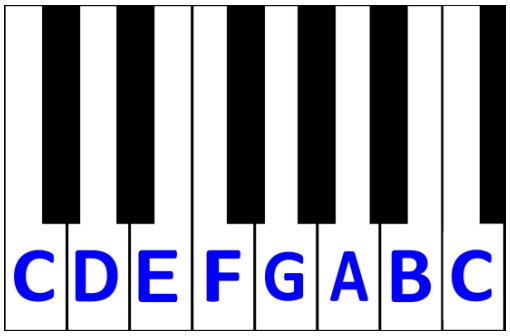


You might have heard the terms **semitone** and **tone**. These are used to describe the difference in pitch between notes. If we take any note as our starting note, then the next note up is one semitone higher than the first note. On the ukulele, this is easy to demonstrate, as you can move up a semitone simply by moving up one fret. Similarly, you can move down a semitone, by moving down one fret. If you move up or down two notes, or two frets on the ukulele, then we say that the second note is a tone higher or lower than the first note. Obviously, a tone is equal to two semitones.

Scales

A scale is quite simply a sequence of musical notes, which rises in pitch. A scale can start on any of our twelve musical notes. By far the most popular scale is the **Major Scale**. Most of our tunes come from this scale. I we start a major scale on the note C, then we call it the C major scale. It so happens that when we play a C major scale, there are no sharps or flats. The note are C – D – E – F – G – A – B and another C. If we were to play these notes on the piano, then we'd only need to play the white keys.

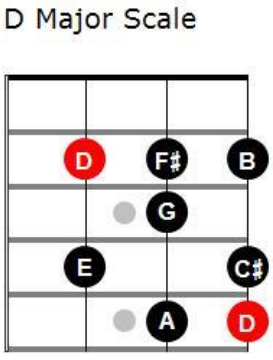


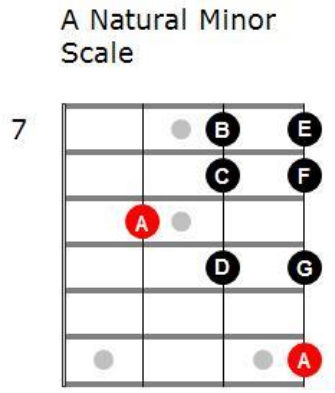


What sets a scale apart from any different kind of scale, is the gaps in between the notes. We measure these gaps in tones and semitones. The gaps between the notes of a major scale go like **this tone tone semitone, tone tone tone semitone**. We can prove this with our C major scale. We start by playing C. A tone above C gives us D. Then another tone above D gives us E. A semitone above E is F. A tone above F is G. A tone above G is A. A tone above A is B. Finally, a semitone above B is C.

So that sequence gives us the major scale formula. To make it easier to remember, many people say **two tones semitone, three tones semitone**.

If we apply this formula to D, then we get the D major scale. We start on D. Then a tone above D is E. A tone above E is F# (remember the gap in the black keys, there is no E# between E and F). A semitone above F# is G. A tone above G is A, a tone above A is B, a tone above B is C# (there's another of those gaps in the sharps and flat there between B and C). Finally a semitone above C# is D, an octave above the D that we started on. So the notes of the D major scale are D – E – F# - G – A – B – C# and D.





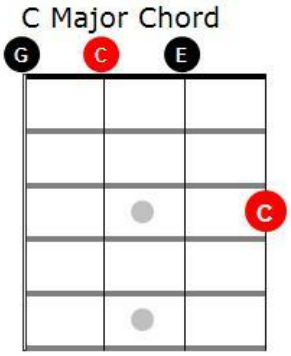
There's another kind of scale that's closely related to the major scale. We call it the **Natural Minor Scale**. All 12 major scales actually have a natural minor scale related to it. We call this the relative minor. To find the relative minor of any major scale, simply find the sixth note. For example the sixth note of the C major scale is A. If we play the exact same notes as the C major scale, but starting on A (remembering not to play any of the sharps or flats), then we get the A natural minor scale, which is the relative minor of C major.

Scales are really important to musicians, because that's where tunes come from, everything from simple nursery rhymes, to popular songs.

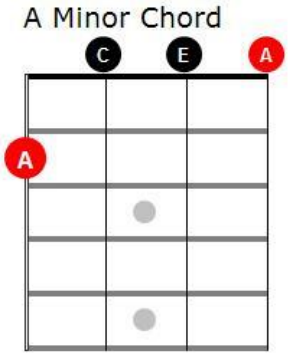
Chords

A chord is a three or more notes that sound good together. On the ukulele we have four strings, so it's an ideal instrument to play chords. Strumming chords is a good way to provide a musical accompaniment for a melody, for example when somebody is singing. The notes that sound good together come from scales.

Here's an example taken from the C major scale. If we take the **first**, **third** and **fifth** notes from the C major scale, that gives us the notes **C**, **E** and **G**. We can also call this the **C major triad**. Those three notes sound nice when played together. Now it doesn't matter how many of each of the three notes we play, and since the ukulele has four strings, we can double up on one of the notes.



To play a chord, you simple hold down whichever strings you need to, to raise the pitch to the required notes. So if we want to play the C major chord, the first string needs to be held down at the third fret, to raise it from A to C. The other three strings are all OK for this chord because when played open, they give us the notes G, C and E. So here is the **C major chord**, which we call C for short.



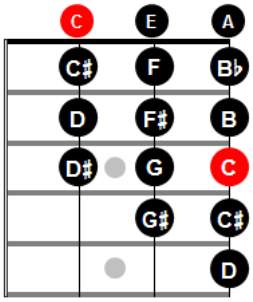
Minor scales also give us chords. Once again, we take the **first**, **third** and **fifth** notes. Let's say we do that to the A natural minor scale. That gives us the **A minor triad,** which is **A**, **C** and **E**. The C, E and A strings are OK to play open, but the fourth string has to be played at the second fret to raise it from G to A. So here is the **A minor chord**.

This lesson assumes that you are using a ukulele tuned to the notes G, C, E and A.

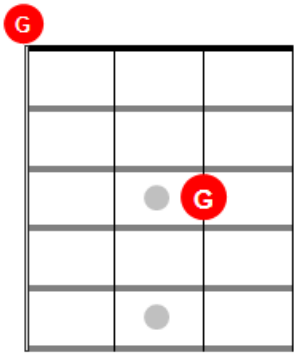
Ukulele Notes

In lesson 1, we introduced the sequence of 12 notes, which repeats up and down the full range of musical notes. Notes with the same name sound similar, like higher and lower versions of the same note. Some notes have two names – these are the sharp (**#**)and flat (***b***) notes.

A	**A# B*b***	**B**	**C**	**C# D*b***	**D**	**D# E*b***	**E**	**F**	**F# G*b***	**G**	**G# A*b***	**A**	**and so on…**



The lowest sounding note on the ukulele is C, the open third string. The next note, on the first fret is C# (also B*b*), then D, and so on until we reach the twelfth note, B on the first string second fret. The next note is a higher version of C, and then the pattern repeats itself.



What about the fourth string? When played open, the note is G, but this is exactly the same note as the G on the second string at the third fret. So the fourth string doesn't actually give us any notes that are not also available elsewhere.

Some ukulele players tune their fourth string an octave lower – this is called low G tuning. That greatly extends the range of notes that can be played on the ukulele, which is very useful for playing melodies, and soloing.

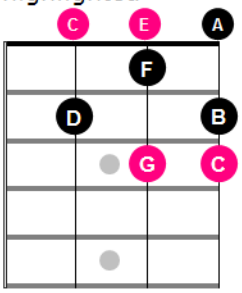
Keys and Transposition

Melodies, for example the tunes of the songs that we sing, come from scales, especially the major scale. A major scale can start on any note. This gives us 12 **keys** in which any piece of music can be played. Any tune can be played in any key. If we know a tune in the key of C Major, then we can play it in the key of C# Major simply by moving everything up one semitone. On the ukulele this is very easy to do – just move all of the notes up by one fret.

If the same tune is moved up a second fret, then the new key is D Major. So any piece of music can be moved to a different key, simple by moving all the notes by the same number of semitones. Musicians call this **transposing** the music.

Chord Families – Harmonising The Major Scale

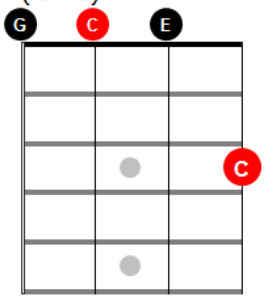
C Major Scale, with C Major triad highlighted



Chords come from scales. For example, the first, third and fifth notes of the C Major Scale (C, E and G) give us the C Major triad, the three notes that are found in the C Major chord.

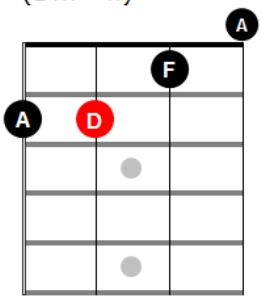
It seems that notes taken from the major scale sound nice together when they are separated by one note. For example we skipped the second and fourth notes (D and F) to build the C chord.

C Major Chord (C - I)



The **C Major** chord, or "**C**" for short is chord 1 in the key of C Major. We use Roman numerals for chord numbers. If the chord is a major chord, then we use upper-case numeral, e.g. **I**. If the chord is not a major chord, then we use lower-case, e.g. ii.

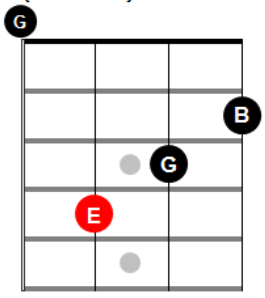
D Minor Chord (Dm - ii)



What if we apply this note-skipping method to the other notes of the scale? We already know that starting on the first note C, leads to the C Major chord. If we start at the second note D, skip the E, play the F, skip the G and play the A, that gives us D, F and A, or the D Minor triad. So chord 2 (**ii**) in the key of D is **D Minor**.

Minor chords are commonly abbreviated with a lower-case "m".

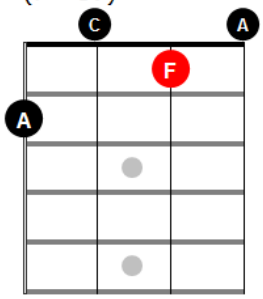
E Minor Chord (Em - iii)



Note 3 of the C Major scale is E. If we start with E, then skip the F, play the G, skip the A and play the B, the resulting triad E, G and B. This gives us chord **iii**, **E Minor**, or Em.

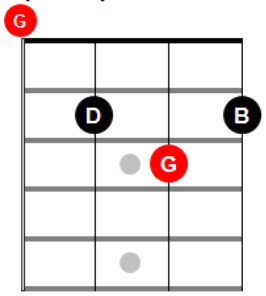
Note 4 of the C Major scale is F. Our note-skipping method results in the triad F, A and C, which is the **F Major** chord, that is chord **IV** in the key of C Major.

F Major Chord
(F - IV)



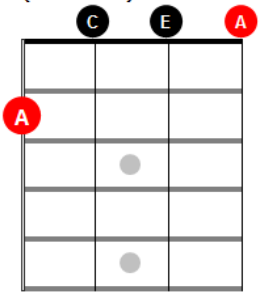
Note 5 of the C Major scale is G. This gives us the triad G, B and D, which is the **G Major** chord, chord **V** in the key of C Major.

G Major Chord
(G - V)



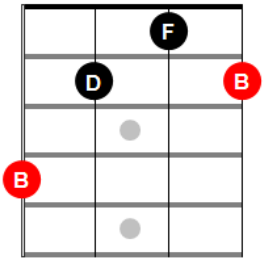
Note 6 of the C Major scale is A. The triad is A, C and E, the **A Minor** chord, chord **vi** in the key of C Major.

A Minor Chord
(Am - vi)



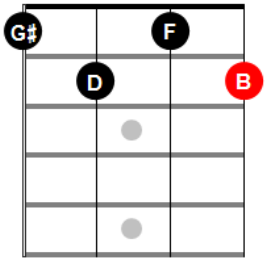
Note 7 of the C Major scale is B. The triad B, D and F is an unusual chord called **B Diminished**. Some call it **B Half Diminished**, to distinguish it from the **B Diminished Seventh** chord. This is a dark, dissonant sounding chord, and it is extremely rare to find it used in pop music. It is chord **vii** in the key of C Major.

B Diminished Chord
(Bdim - vii)



Bdim7

N.B. Don't confuse the **Bdim** chord with **Bdim7**! Bdim7 isn't particularly associated with the key of C Major, or any other specific key. It's a useful, pleasant-sounding "passing" chord, and can be played like this.



This gives us a "family" of chords, that come from the C Major scale. They can be used to harmonize with, or accompany melodies played or sung using the C Major scale.

The chord types from I to vii can be remembered like this:

MAJOR – MINOR – MINOR – MAJOR – MAJOR – MINOR - DIMINISHED

Chords With Four Notes

So far, the chords have all been triads, containing three notes. Why stop at three? What happens when we add a fourth note to the chord. For example with chord 1, C Major, if we start with the triad C, E and G, then skip the next note A, we add the seventh note from the scale B to the chord. This gives us a new chord called C Major Seventh. It sounds like a more sophisticated, *jazzier* version of the C chord. It can be written like this; CM7, or CMaj7.

Chord ii D Minor (Dm), becomes **D Minor Seventh**, or **Dm7** when the fourth note C is added.

Chord iii E Minor (Em), becomes **E Minor Seventh**, or **Em7** when the fourth note D is added.

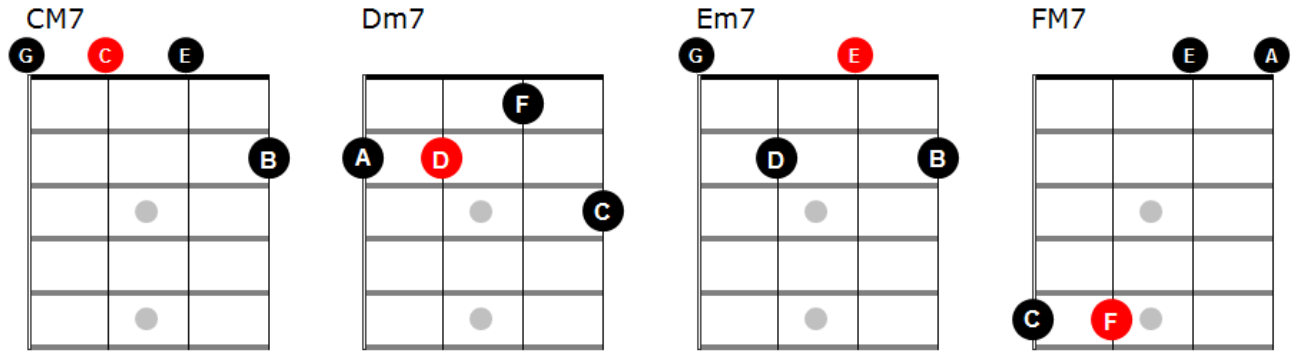
Chord IV F Major (F), becomes **F Major Seventh**, or **FM7** when the fourth note E is added.

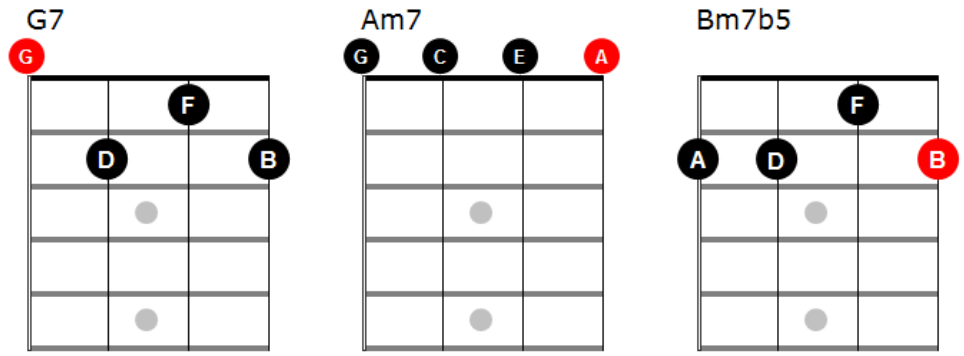
Chord V G Major (G), becomes **G Dominant Seventh**, or **G7** when the fourth note F is added. So now we know that seventh chords are usually (but not always) the fifth chord in a major key.

Chord vi A Minor (Am), becomes **A Minor Seventh**, or **Am7** when the fourth note G is added.

Chord vii, the extremely rare B Diminished (Bdim), becomes **B Minor Seventh Flat Fifth**, or **Bm7b5** when the fourth note A is added. Unlike Bdim, Bm7b5 is a commonly-used chord, for example in George Gershwin's song "Summertime", and Gloria Gaynor's karaoke classic "I Will Survive".

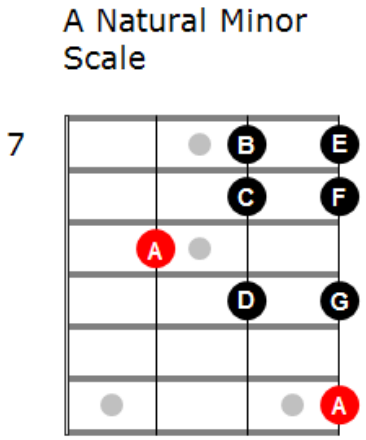
Here are the four-note chords in the key of C Major…





That makes fourteen chords in our family of chords in the key of C major. Any melody that uses only notes from the C Major scale can be harmonised with these chords. Any note of the scale has a choice of chords that will harmonise with it. For example the note D can be found in all of these chords: Dm, Dm7, Em7, G, G7, Bdim and Bm7b5. Making wise choices for which chords to accompany notes is an essential part of the songwriter or composer's skills.

All major scales have a relative minor. The relative minor of C Major is the A Natural Minor scale. This scale has the same notes as C Major, but it starts and ends on A instead of C. That means that the family of chords we built for the key of C Major can also be used to harmonise songs in the key of A Minor.



This method of building a family of chords around a major scale is called **Diatonic Harmony**.

Other Keys

In this lesson, we used C Major as an example of a key. There are actually 12 major keys. The same principles that applied to C Major, apply equally to all of the other keys. Take the key of D Major. If we apply the major scale formula

TONE - TONE - SEMITONE - TONE - TONE - TONE - SEMITONE

to G, this gives us the notes of the D Major scale: D, E, F#, G, A, B, C# and D. Next, we apply our chord type formula

MAJOR – MINOR – MINOR – MAJOR – MAJOR – MINOR – DIMINISHED

And this results in the following triad chords…

D - Em – F#m - G - A - Bm - C#dim

Add the fourth note to each triad, and we get these chords (i.e. the same chord types as with the key of C Major)…

DM7 – Em7 – F#m7 – GM7 – A7 – Bm7 - C#m7b5

Analyse the chords of one of your favourite ukulele songs. Write down the chord numbers. Then, transpose it to a different key, by matching the chords of the new key to the chords of the original key by their number.

For example if a song in the key of C Major contains the chords C, F and G (chords I, IV and V) then the same song would have the chords D, G and A in the key of D Major. An example is "Twist And Shout", originally a hit by the Isley Brothers, and famously covered by the Beatles.

Transposing the chords of a song helps you find a key that suits your singing voice better, so it's a really useful skill to have.

What's Next?

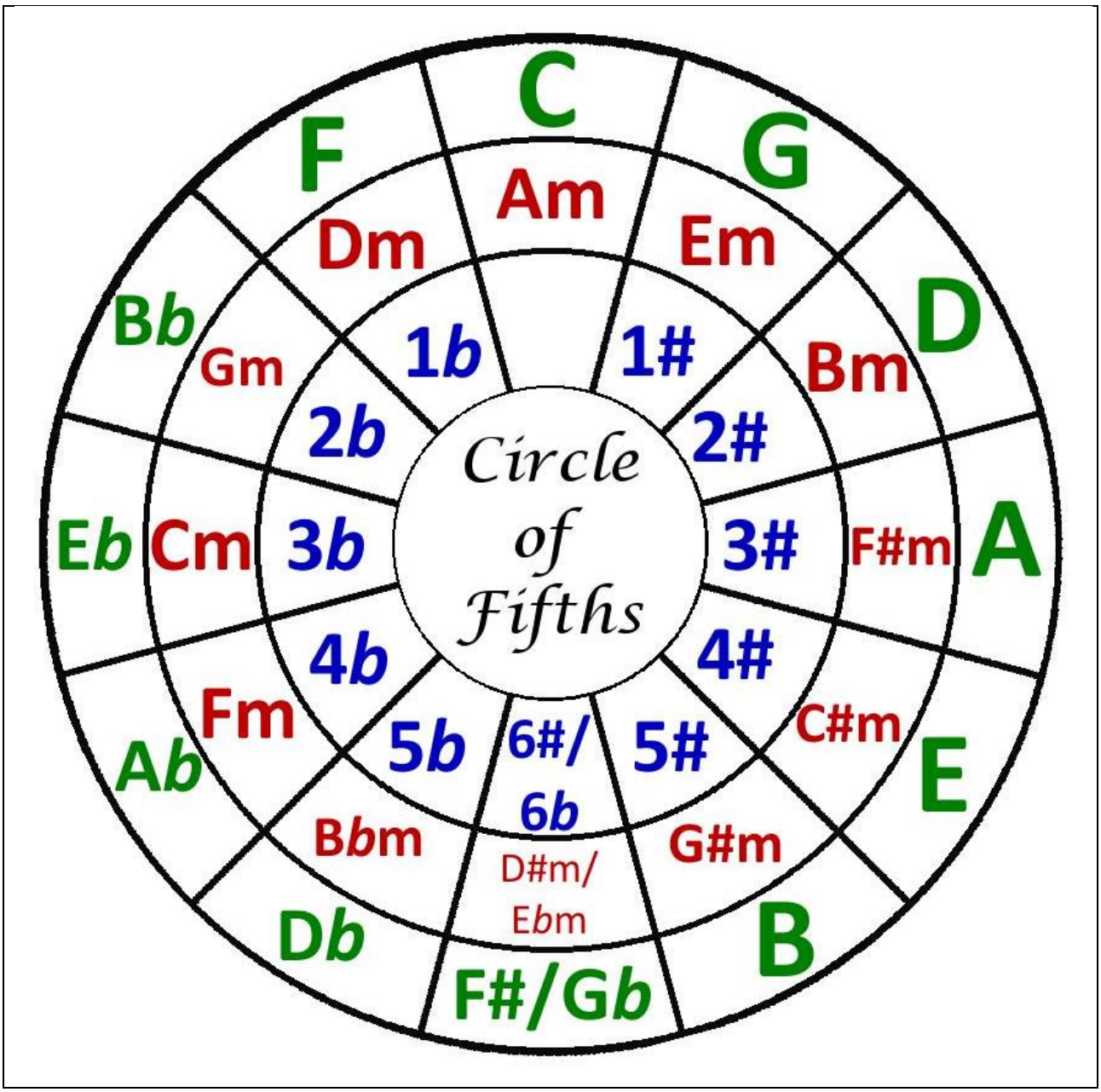
Now it's your turn. Pick a key, work out the major scale, and build the family of chords that goes with it. Perhaps try the key of G Major first?

This lesson assumes that you are using a ukulele tuned to the notes G, C, E and A.

The Circle Of Fifths

In the previous lesson, we introduced the concept of the 12 keys in music. Each key has a major scale, and a relative natural minor scale. As musicians, we need to know the notes and chords that belong to each key.

The circle of fifths is a useful way to remember which sharps or flats to include in each key. It is usually represented as a diagram, like the one below.



In the circle of fifths diagram on the previous page, there are three rings of information, each in a different colour.

The **green** ring shows the major keys, from C to F.

The **red** ring shows the minor keys, from the A minor to D minor.

The **blue** ring shows the number of sharps or flats in each key.

To prove that the information in the circle of fifths is correct, we can use the table below. Each row of the table shows us the notes in a major scale. The scale degrees from 1 to 8 are also given their proper names, tonic, supertonic etc.

TONIC	SUPERTONIC	MEDIANT	SUBDOMINANT	DOMINANT	SUBMEDIANT	LEADING NOTE	TONIC	SHARPS OR FLATS
1	2	3	4	5	6	7	8	
C	D	E	F	G	A	B	C	0
G	A	B	C	D	E	F#	G	1#
D	E	F#	G	A	B	C#	D	2#
A	B	C#	D	E	F#	G#	A	3#
E	F#	G#	A	B	C#	D#	E	4#
B	C#	D#	E	F#	G#	A#	B	5#
F#	G#	A#	B	C#	D#	E#	F#	6#
D*b*	E*b*	F	G*b*	A*b*	B*b*	C	D*b*	5*b*
A*b*	B*b*	C	D*b*	E*b*	F	G	A*b*	4*b*
E*b*	F	G	A*b*	B*b*	C	D	E*b*	3*b*
B*b*	C	D	E*b*	F	G	A	B*b*	2*b*
F	G	A	B*b*	C	D	E	F	1*b*

We can work out the notes of each major scale comes from the major scale formula…

TONE – TONE – SEMITONE – TONE – TONE – TONE - SEMITONE

We start with the C major scale. As you can see, this has no sharps or flats. The two semitone steps in the formula happen to fall on E to F and B to C, which unlike the other alphabetic notes don't have any sharp or flat notes between them.

Next, we go to the dominant (fifth) note of the C major scale, which is G. This becomes our new tonic, and using the major scale formula, we find that the leading (seventh) note is F#. So the key of G major has one sharp.

The dominant note of the G major scale is D, our new tonic. The major scale formula gives us the notes, and we see that the new key has inherited the F# from the previous key, and that it has also gained a new sharp in the leading note position, which is C#. So the key of D major has two sharps.

Once again, we take the dominant note, and make it our new tonic, A. This time, F# and C# are inherited from the previous key, and the new sharp leading note is G#. So the key of A major has three sharps.

The pattern continues. The key of E major has four sharps – F#, C# and G# are inherited from the previous key, and the new sharp leading note is D#.

The key of B major has five sharps – F#, C#, G# and D# are inherited from the previous key, and the new sharp leading note is A#.

The new key's tonic is itself a sharp – F#. F#, C#, G#, D# and A# are inherited from the previous key, and the new sharp leading note is E#.

Hang on! What's this note E#? Up to now, we've always said that that note doesn't exist –on the piano, there is no black key between the white keys E and F, and on the ukulele the note E is followed by the note F . Well, a tone above the sixth note D# is actually F. As this is the key of F# this could get a bit confusing, especially when reading music notation. So the rules of **enharmonic spelling** are invoked. These are…

1 A major scale must rise according to the letters of the alphabet – no letter can be skipped.

2 A single letter of the alphabet cannot occur twice in any major scale.

So we can't call the leading note of the F# major scale F. We have to pretend that it's called E#.

At this point we could remember that all sharp notes actually have another (flat) name. In this case, the key of F# becomes the key of G*b*.

TONIC	SUPERTONIC	MEDIANT	SUBDOMINANT	DOMINANT	SUBMEDIANT	LEADING NOTE	TONIC	SHARPS OR FLATS
1	2	3	4	5	6	7	8	
G*b*	A*b*	B*b*	C*b*	D*b*	E*b*	F	G*b*	6*b*

So the key of G*b* has six flats instead of six sharps. It also contains the odd note C*b*, which is actually B. We can't call it B, because this key already has B*b*.

Things are getting out of hand – what about the next key. Is it C# or D*b*?

TONIC	SUPERTONIC	MEDIANT	SUBDOMINANT	DOMINANT	SUBMEDIANT	LEADING NOTE	TONIC	SHARPS OR FLATS
1	2	3	4	5	6	7	8	
C#	**D#**	**E#**	**F#**	**G#**	**A#**	**B#**	**C#**	**7#**

Now all seven notes are sharps, are two of them, E# and B# are actually really F and C, but we can't call them that!

If we call this new key Db, then instead of gaining a sharp, we're losing a flat. Also, there are no oddly named notes. There are five flats in the key of D*b* major – D*b*, E*b*, G*b*, A*b* and B*b*. So it makes sense to continue with only flat keys.

The dominant of D*b* is A*b*. The leading note G loses its flat, so now there are four flats - D*b*, E*b*, A*b* and B*b.*

The dominant of A*b* is E*b*. The leading note D loses its flat, leaving three flats - E*b*, A*b* and B*b.*

The dominant of E*b* is B*b*. The leading note A loses its flat, leaving two flats - E*b* and B*b.*

The dominant of B*b* is F. The leading note E loses its flat, leaving one flat – B*b*.

The dominant of F is C, which is back where we started.

So, we travelled around all twelve keys in fifths, from C back to C. That's why it's called the circle of fifths.

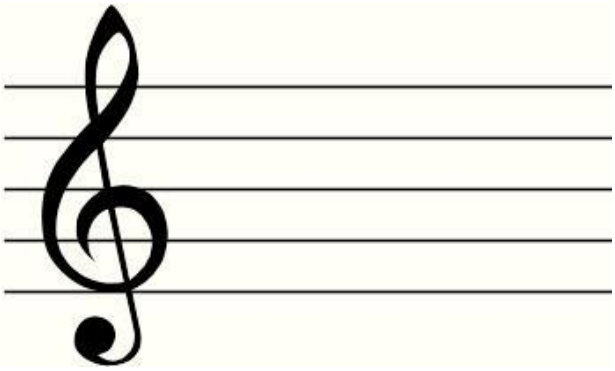
Relative Minor Keys

Each major key has a relative minor key, which contains exactly the same notes. To find the relative minor, go to the submediant (sixth) note of the major scale. For example, the relative minor of C major, is A minor. The circle of fifths diagram on the first page of this document. Includes a ring of minor keys, shown in **red**.

Of course, the number of sharps and flats for any specific major key, is also true of its relative minor key.

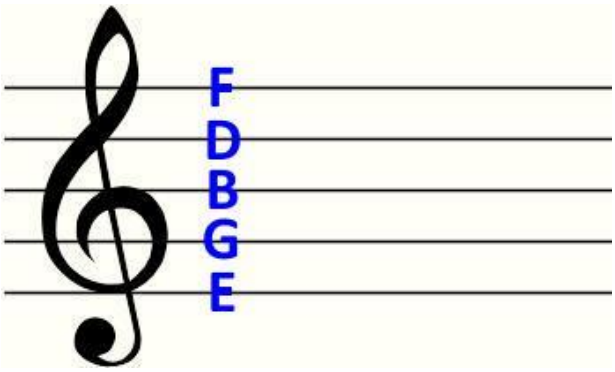
Key Signatures

Music can be written down in standard music notation, on a **stave** or **staff** of 5 lines, together with the spaces in between and above the lines. Ukulele music uses the **treble clef**, written as an ornamental letter **G**.

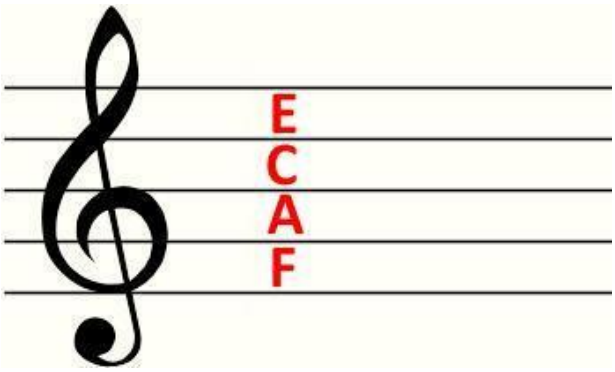


Each line represents a note, which can be either natural, sharp or flat.

From the bottom line, these notes are **E**, **G**, **B**, **D** and **F**. Some people remember this as follows: **E**very **G**ood **B**oy **D**eserves **F**ruit (or **F**avour).

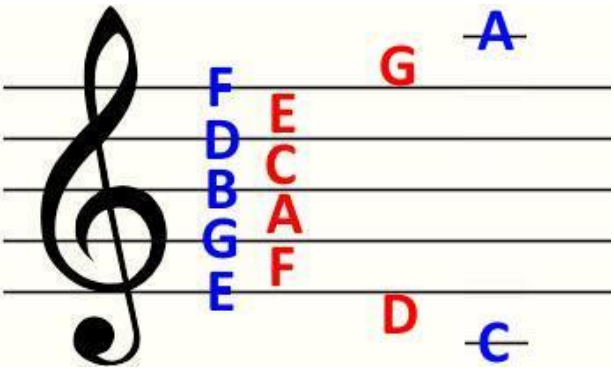


The spaces in between the lines also represent notes. These are **F**, **A**, **C** and **E**. This is course spells **FACE**.

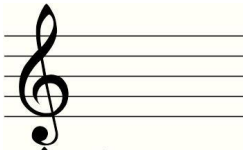


So the notes go up the alphabet sequentially as they go up the stave. **E – F – G –A –B – C – D – E** and **F**.
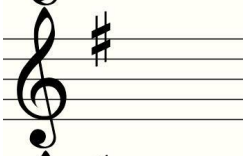
The spaces above and below the stave can also be used to continue the sequence. Small **leger** lines are used in this case.
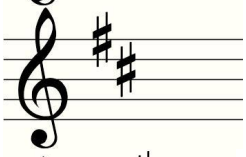


With standard music notation, the first thing we see to the right of the clef, is the **key signature**. This tells us which notes are to be played as sharps or flats, and consequently which key the music is in. Here are the key signatures.
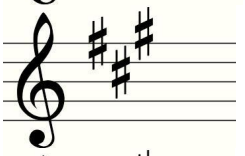


The key of C major (A minor) has no sharps or flats, and therefore has no key signature.
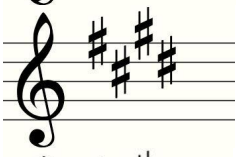


The key of G major (E minor) has one sharp.
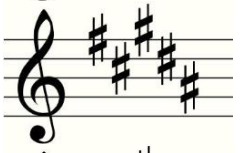


The key of D major (B minor) has two sharps.
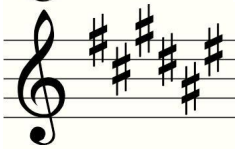


The key of A major (F# minor) has three sharps.



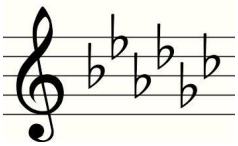
The key of E major (C# minor) has four sharps.
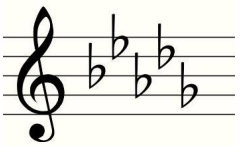


The key of B major (G# minor) has five sharps.

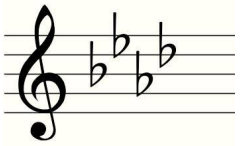


The key of F# major (D# minor) has six sharps. This is equivalent to the key of G*b* major (E*b* minor) which has six flats.

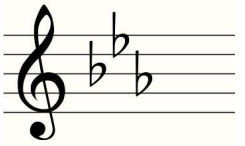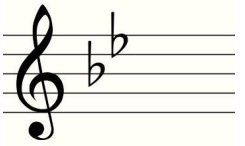




The key of D*b* major (B*b* minor) has five flats.



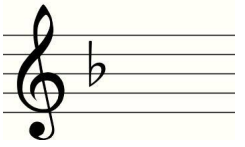
The key of A*b* major (F minor) has four flats.



The key of E*b* major (C minor) has three flats.



The key of B*b* major (G minor) has two flats.

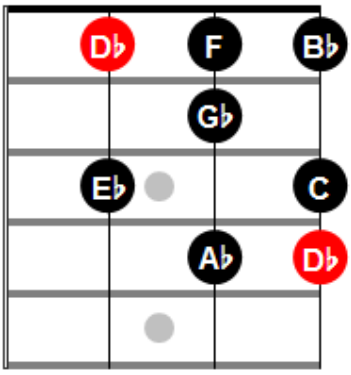


The key of F major (D minor) has one flat.

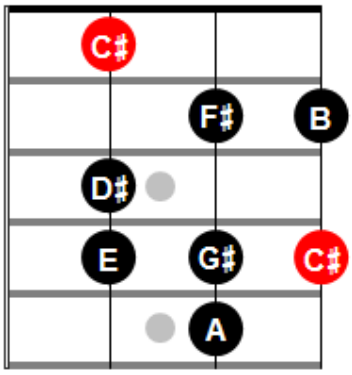
Scale Shapes

Finally, here are two important scales shapes. Both shapes are movable – they have no open strings, and can therefore be transposed into different keys simply by moving up the neck of the ukulele.

Db Major Scale



C# Natural Minor Scale

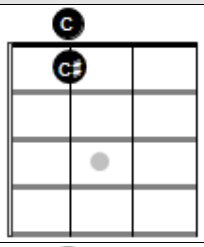
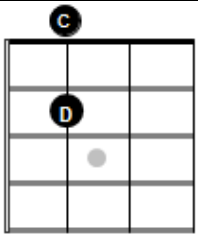
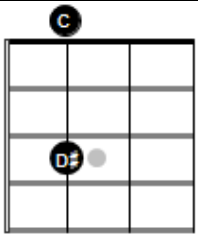
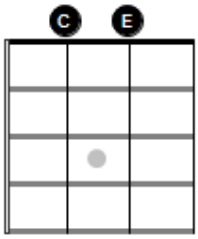
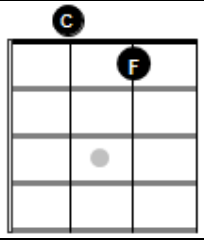


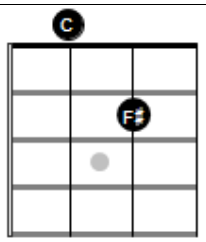
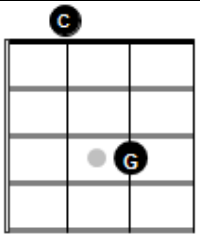
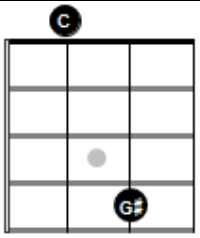
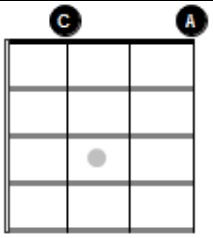
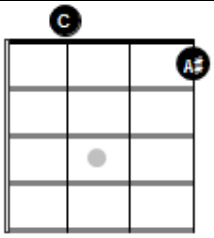
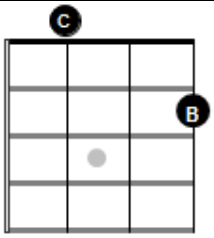
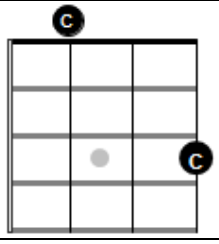
This lesson assumes that you are using a ukulele tuned to the notes G, C, E and A.

Intervals

An interval is a measurement of the difference in pitch between two notes. A study of intervals is useful to musicians, as it helps to develop your musical ear.

Here is a table of intervals, together with songs you can use to help you recognize them. Try playing the notes shown in the Ukulele Example column, and hum or sing the rest of the suggested song or melody.

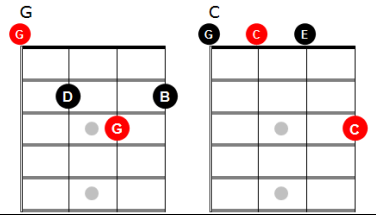
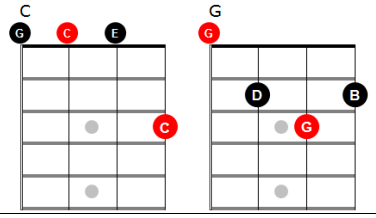
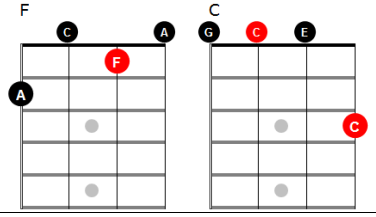
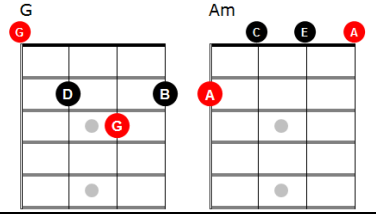
Interval Name(s)	Number of Semitones	Suggested Songs or Melodies	Ukulele Example
Minor Second	1	A Hard Day's Night	
Major Second	2	Frere Jacques Happy Birthday To You	
Minor Third	3	Greensleeves	
Major Third	4	Oh When The Saints While Shepherds Watched	
Perfect Fourth	5	Auld Lang Syne	

Augmented Fourth, or Diminished Fifth, or Tritone	6	Maria (West Side Story) The Simpsons	
Perfect Fifth	7	Twinkle, Twinkle Little Star	
Minor Sixth	8	Baker Street (Sax riff)	
Major Sixth	9	My Bonnie	
Minor Seventh	10	Somewhere (West Side Story)	
Major Seventh	11	Take On Me	
Perfect Octave	12	Somewhere Over The Rainbow	

Cadences

A cadence is a musical punctuation mark, often heard at the end of a phrase or section of the music, such as a verse or chorus. Being able to recognize cadences by ear can help musicians to identify which key a piece of music is in.

There are four main types of cadence, shown in the table below.

Cadence Name	Chord Numbers	Effect of the Cadence on The Music	Ukulele Example in the Key of C Major
Perfect	V - I	The end of the section, or even the end of the whole piece.	
Imperfect	I – V	A temporary respite, before the piece continues, usually with chord I.	
Plagal	IV – I	The end of the section or piece, with a “churchy” or “ecclesiastical” sound (think “Amen”).	
Interrupted	V – vi	A false ending.	

Identifying Keys

In part 2 of this series of lessons, we introduced the concept of the family of chords that belong to each key. For example in the key of C Major, these chords are…

Chord Number	I	ii	iii	IV	V	vi	vii
3 Note Chords	C	Dm	Em	F	G	Am	Bdim
4 Note Chords	CM7	Dm7	Em7	FM7	G7	Am7	Bm7b5

Here is the family of chords in the key of G Major…

Chord Number	I	ii	iii	IV	V	vi	vii
3 Note Chords	G	Am	Bm	C	D	Em	F#dim
4 Note Chords	GM7	Am7	Bm7	CM7	D7	Em7	F#m7b5

So the pattern of chord types is the same, regardless of which key the music is in. The three-note chords have the following types..

MAJOR	MINOR	MINOR	MAJOR	MAJOR	MINOR	DIMINISHED

This is what happens to the three-note chords when a fourth note is added…

MAJOR (I or IV) -> MAJOR SEVENTH

MAJOR (V) -> DOMINANT SEVENTH

MINOR -> MINOR SEVENTH

DIMINISHED -> MINOR SEVENTH FLAT FIFTH

Adjacent Majors

So the adjacent chords IV and V in a major key are always Major chords, except that chord IV can be a Major Seventh, and chord V can be a Dominant Seventh. Look out for adjacent majors in a chord chart. For example…

C / / / | **Am** / / / | **Em** / / / | **C** / / / |
Am / / / | **GM7** / / / | **Em7** / / / | **D7** / / / |

The chord chart above contains the chords C and D7. These are adjacent Majors. If C is chord IV and D7 is chord V, then count backwards five times from D (D, C, B, A, G), and we arrive at chord I, which defines the key – G Major.

In addition to counting down by five, the same result can be achieved by counting upwards by four (D, E, F#, G).

Adjacent Minors

The adjacent ii and iii chords in a major key are always Minor chords, but they can also be Minor Sevenths. Consider the chord chart below…

Dm	/	/	/	**C**	/	/	/	**Am**	/	/	/	**Bb**	/	/	/
F	/	/	/	**Gm**	/	/	/	**Am**	/	/	/	**C7**	/	/	/

Even if you didn't spot the adjacent Major chords Bb and C, then Gm and Am are adjacent Minor chords, meaning that they are chords ii and iii. Simply count backwards, and we arrive at the key of F Major.

Minor Keys

Remember that all Major keys have a relative Minor key. The keys of the examples above could also be A Minor for the first one, and D Minor for the second. In addition to the chord chart, you should also consider the cadences, melody and bass line (if there is one!) when deciding which key the piece is in.

This lesson assumes that you are using a ukulele tuned to the notes G, C, E and A.

Blues Harmony

Blues is a hybrid of traditional West European harmony with melodic and rhythmic influences from Africa. It gives us permission to play three **blue notes** in addition to the usual notes of the major scale. All three of these blue notes are flattened by one semitone from notes in the major scale. In the key of C major, these are…

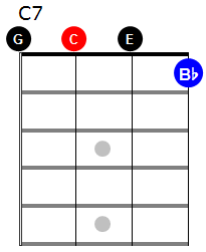
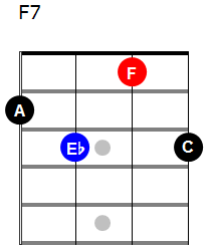
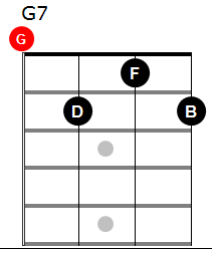
E*b*, the minor third

G*b*, the diminished fifth, and

B*b*, the minor seventh

Any or all of these notes are commonly found in blues melodies, as well as in the melodies of all genres of music that are influenced by blues, including, gospel, jazz, r'n'b, rockabilly, rock'n'roll, soul, funk, and blues-rock.

These notes also have an effect on the types of chords that we can play to accompany blues melodies. In the key of C major, the most commonly used chords are chords **I**, **IV** and **V**: C Major, F Major and G Major.

Blues harmony gives us permission to add the minor seventh **B*b*** to the C Major chord (chord **I**), making it a C Dominant Seventh chord, **C7**.	
The minor third in the key **E*b*** can be added to the F Major chord (chord **IV**), making it an F Dominant Seventh chord, or **F7**.	
As with traditional (diatonic) harmony, chord **V** can be extended with a fourth note from the key to make it a dominant seventh chord, in this case **G7**.	

So a blues chord progression in the key of C often contains C7, F7 and G7 – all dominant seventh chords. Blues often follows a 12-bar structure (you have probably heard the expression **12-bar blues**), for example…

C7 / / /	F7 / / /	C7 / / /	C7 / / /
F7 / / /	F7 / / /	C7 / / /	C7 / / /
G7 / / /	F7 / / /	C7 / / /	G7 / / /

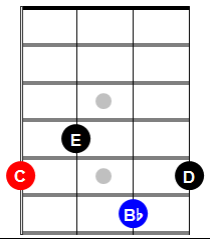
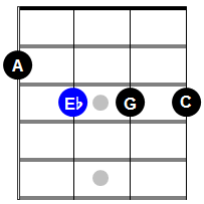
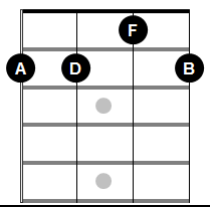
Any of those three seventh chords can also optionally be played as normal major chords, especially in types of music that are influenced by blues, without actually being blues. There are many possible variations on the 12-bar blues pattern.

Dominant Ninth Chords

Dominant seventh chords are made up of four notes. They can be played easily on the ukulele, because it has four strings. What about chords made up of five notes, for example dominant ninths? For example C9 consists of five notes…

C9 (C Ninth)	
The root note	C
The major third	E
The perfect fifth	G
The minor seventh	B*b*
The major ninth	D

Clearly we can't play all of these notes at the same time on a ukulele. So, we have to compromise and lose one of the notes. The notes that can be omitted from these chords are the root note, and the perfect fifth. So here are three dominant ninth chords, for a blues in the key of C.

This shape for **C9** omits the perfect fifth, G.	C9 
This version of **F9** omits the root note F. Another possible name for this chord is **Am7*b*5**.	F9 
This version of **G9** omits the root note G. Another possible name for this chord is **Bm7*b*5**.	G9 

So these chords can be used wherever you would otherwise use a dominant seventh. For example in a 12-bar blues.

Major And Minor Sixth Chords

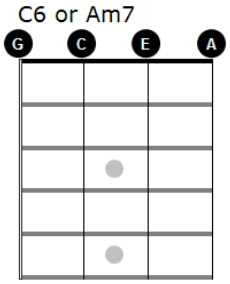
A major sixth can be added to both major and minor triads, to produce major sixth and minor sixth chords. For example…

C6 (C Major Sixth)	
The root note	C
The major third	E
The perfect fifth	G
The major sixth	A

Notice that these are exactly the same notes that we play in an A Minor Seventh chord (**Am7**), albeit inverted…

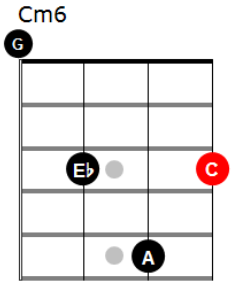
C6 (C Major Sixth)	
The root note	A
The minor third	C
The perfect fifth	E
The minor seventh	G

And these notes also happen to be the tuning notes for the ukulele in standard G – C – E – A tuning. So this is the easiest chord to play on the ukulele, as you don't need to press any of the strings down.



A minor sixth chord adds the same major sixth note to a minor triad, for example…

Cm6 (C Minor Sixth)	
The root note	C
The minor third	E*b*
The perfect fifth	G
The major sixth	A

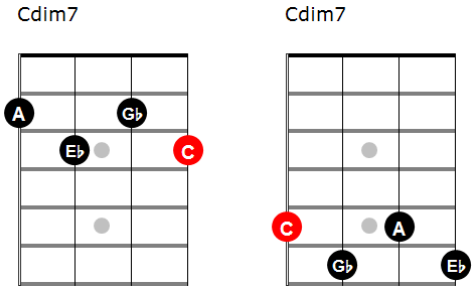


Diminished Seventh Chords

These chords are *harmonically unstable*, because the notes don't all come from any one major scale. They are used to create a moment of *tension*, which set up an expectation of *resolution* in the ears of the listener. The four individual notes in a diminished seventh chord are all a minor third (three semitones) apart. For this reason the chord can be named after any one of the four individual notes. For example…

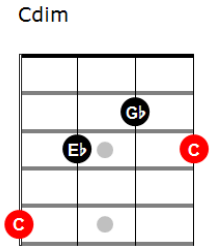
Cdim7 (C Diminished Seventh)	
The root note	C
The minor third	E*b*
The diminished fifth	G*b*
The diminished seventh (major sixth)	A

A common playing technique on both the ukulele and the guitar is to exploit the characteristics of this chord by moving it up by three frets, which forms a higher version of the exact same chord. For example…

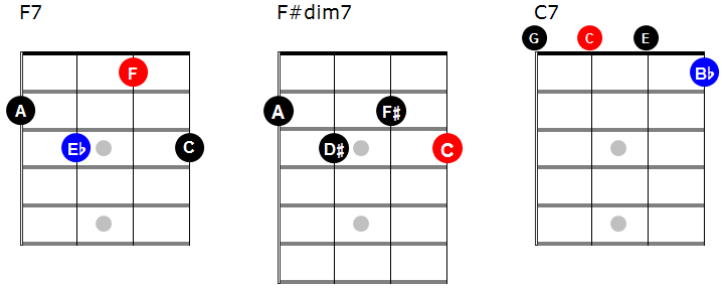


Also, note that (depending on context, such as which key the music is in) it is perfectly acceptable to call the chord **Cdim7** after any of the other notes, including their *enharmonic* equivalents: **E*b*dim7** (**D#dim7**), **G*b*dim7** (**F#dim7**) and **Adim7**.

N.B. don't confused this chord with the triad (three-note chord) **C diminished** (called by some people **C half-diminished**) which consists of the notes C, E*b* and G*b*. This is chord **VII** in the key of D*b* major.



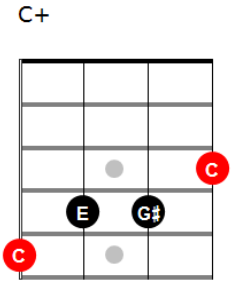
In a blues, a diminished seventh chord built on the augmented fourth note of the key is often used following chord **IV** to add a moment of tension which is beautifully resolved by a return to chord **I**. For example, in the key of C…



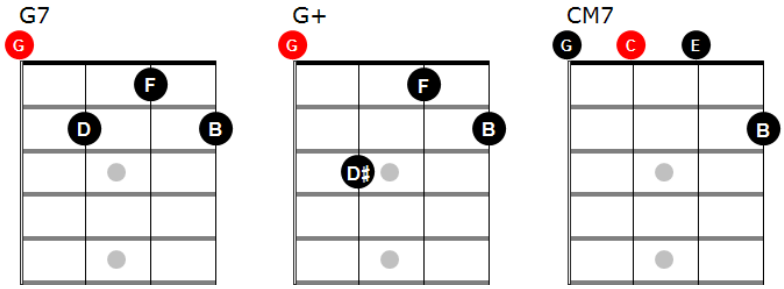
Augmented Fifth Chords

Like the diminished seventh, the augmented fifth is another harmonically unstable chord, using for creating tension before a resolution.

C+ (C Augmented Fifth, also C+5, Caug, Caug5)	
The root note	C
The major third	E
The augmented fifth	G#

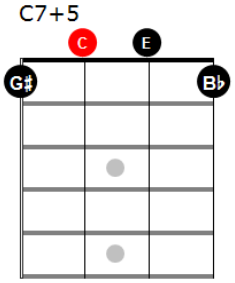


In blues and jazz, an augmented fifth chord often follows a dominant seventh, to momentarily increase the tension before the tonic chord **I** provides resolution. For example…



The augmented fifth interval can also be added to a dominant seventh chord, for example…

C7+5 (or C7#5, or C7aug etc.)	
The root note	C
The major third	E
The augmented fifth	G#
The minor seventh	B*b*



12-Bar Blues With "Jazz" Chords

Finally, let's put all of these ideas together, with the following chord chart. This is a typical 12-bar blues as played by jazz musicians, with a mixture of traditional diatonic harmony, blues harmony, extended chords and substitute chords.

CM7 / Dm7 /	Em7 / Dm7 /	CM7 / / /	C7 / C7#5 /
F7 / / /	F#dim7 / / /	CM7 / Dm7 /	A7 / / /
Dm7 / / /	G9 / / /	CM7 / A7 /	Dm7 / G7 G+

