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ACADEMY

MODULE 2
Explore Chords And Harmony

The Intersection Between Art and Science

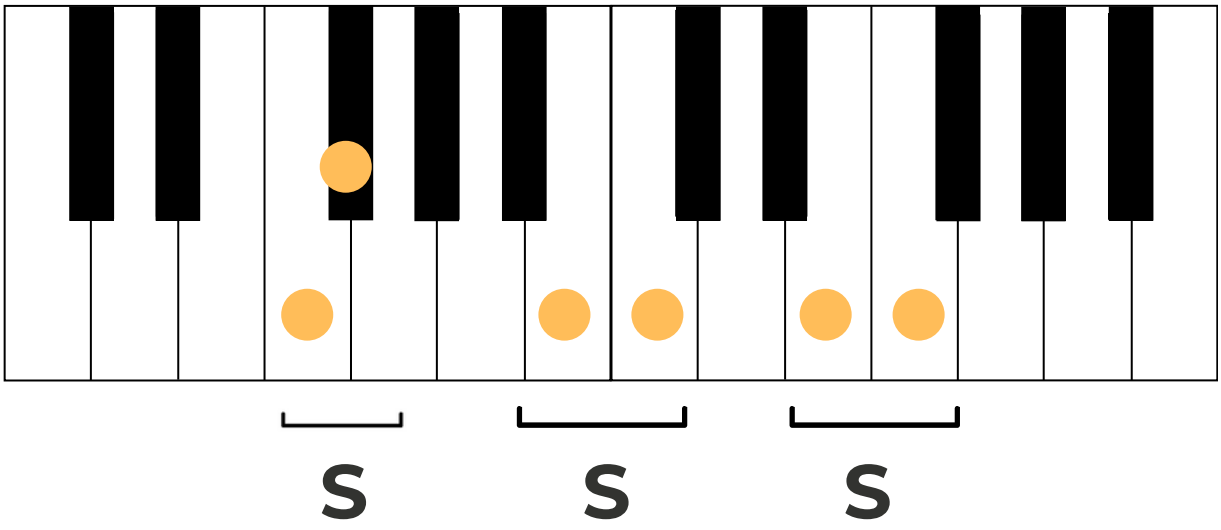
One of the beautiful things about music is that it not only serves us artistically, connecting with our emotions, acting as a vehicle of beauty on which we can hitch a ride, but it is also incredibly quantifiable and mathematical. I believe it's this duality of art and science that makes music such a powerful force in the world.

One of the great constructs within music theory is that of the Major Scale. The Major Scale can be considered the Big Mamma of musical invention and lucky for us, this invention comes with a simple, easy to remember blueprint.

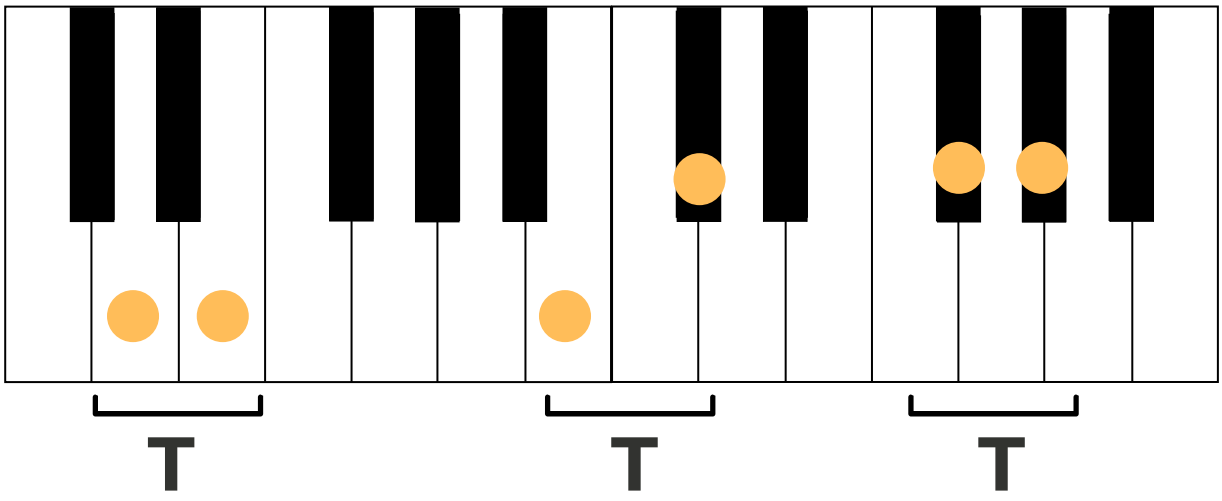
No matter what note you begin with on the piano keyboard, as long as you follow the formula you will always create a major scale.

Tones and Semi-Tones

A ***Semi-Tone*** refers to the distance between two notes directly next to each other on the piano keyboard. This usually looks like a black note to a white note however we also have two 'white note' to 'white note' semitones on the keyboard: B to C and E to F.



A ***Tone*** is the musical distance between two semi-tones stacked together. This often looks like a white to a white key or a black to a black key however we also have a few white to black key tones on the keyboard too: e.g. E to F#, B to C#.

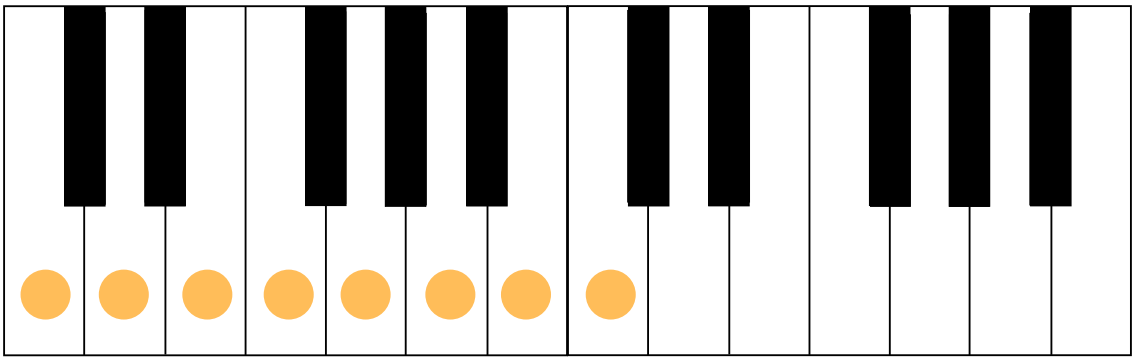


The Major Scale Formula

Using the following code **in ascending order** we can always work out our musical bearings:

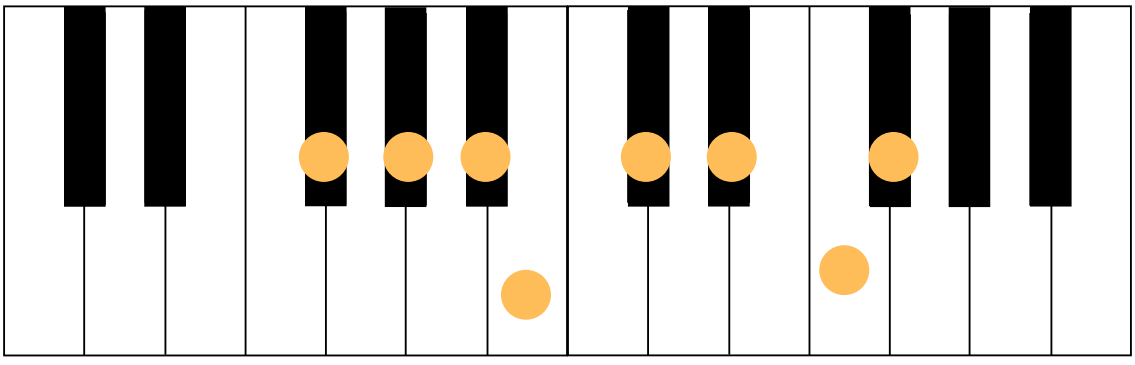
Tone, Tone, Semi-Tone, Tone, Tone, Tone, Semi-Tone
also written as **T, T, S, T, T, T, S**

C Major



T T S T T T S

F# Major



T T S T T T S

Language and Terminology

You will often hear notes within the major scale being referred to as **numbers**.

When we use numbers instead of letters the music theory behind the scale is easily transferable to multiple functions. Consider it the equivalent of using x, y and z in mathematics.

You can substitute the letters for numbers based on the context you are working in.

Exercise

Choose a random note on your instrument and workout its corresponding Major Scale.

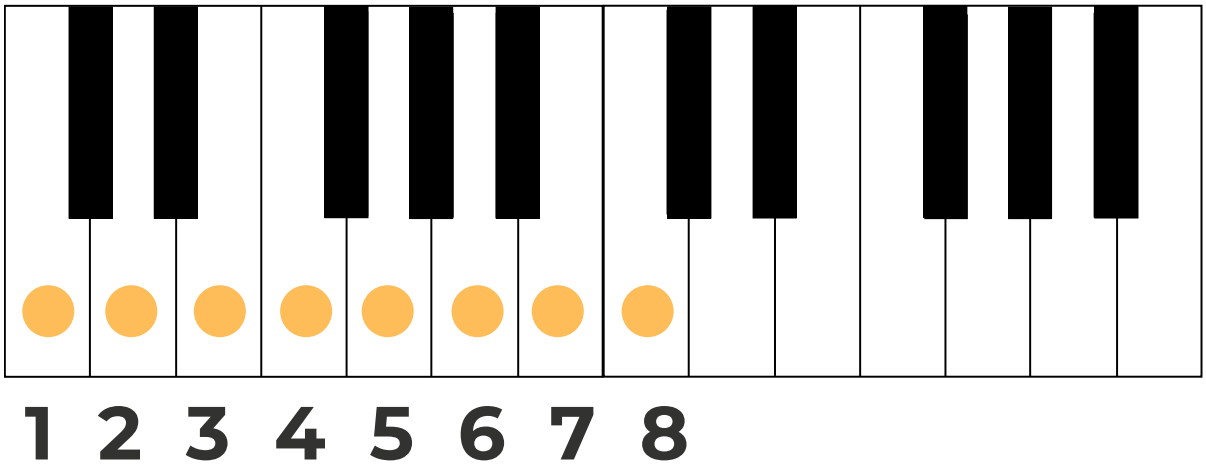
Play the scale whilst also singing each note out loud. Then go on an adventure, improvise, riff and ramble around the scale until you feel comfortable with its note structure and sound.

Choose another note and repeat until you hfeel like you are getting the hang of it.

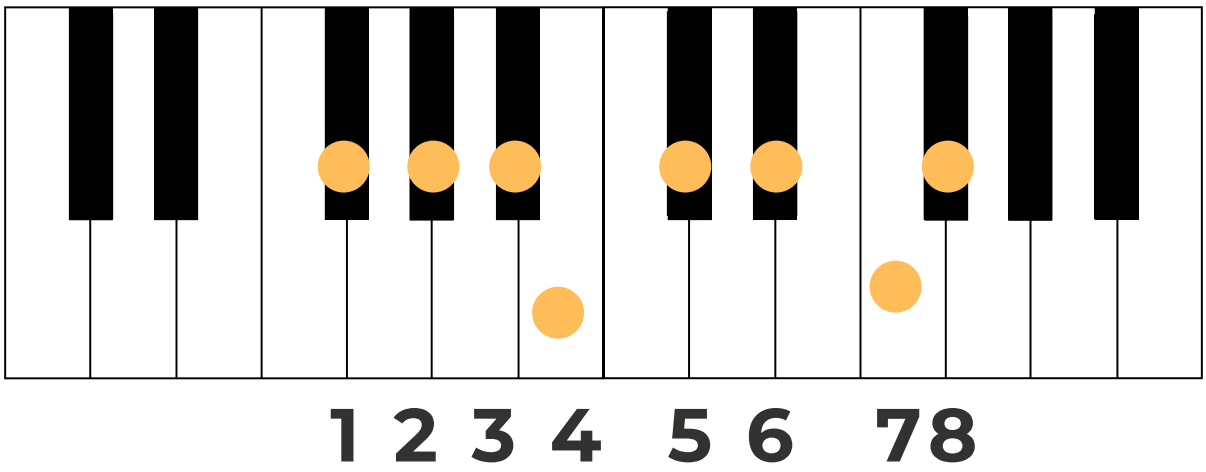
Degrees of the Major Scale

As we move up and down our scales we number each note from one (1) to seven (7). For our exercise purposes we will also call the octave eight (8).

C Major



F# Major



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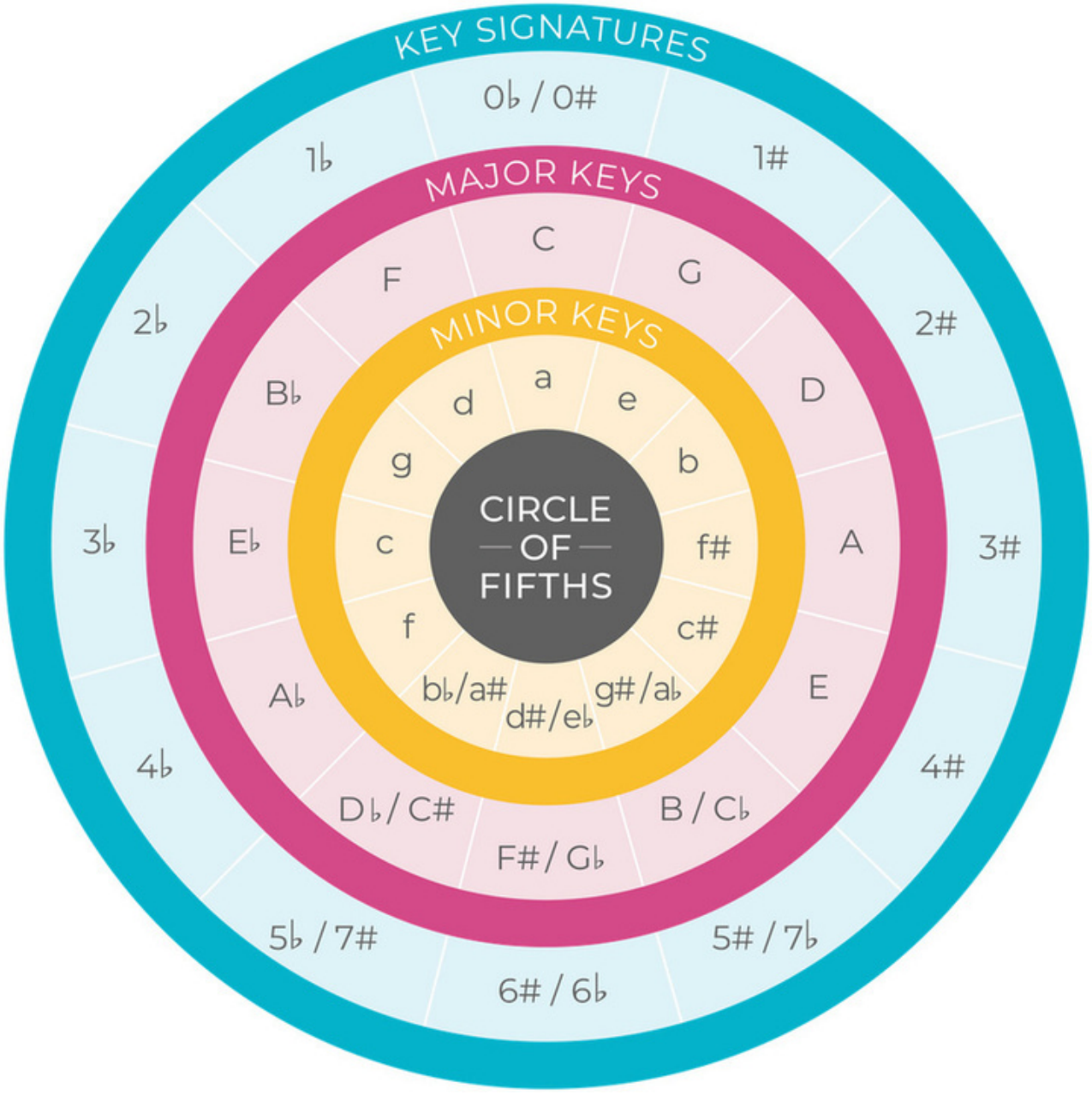
The Circle Of Fifths

The Circle Of Fifths



How To Read The Circle

Print Out The Circle Of Fifths Cheat Sheet Here >>

The Circle of Fifths is a fantastic reference which collects the key signatures and presents them in a visual, structured format.

The Circle of Fifths will help you to remember your key signatures, quickly identify relative minors.

By understanding this theory a little better you have more artistic choice and your intuitive music making can transition into higher level song-craft, where you are in charge and get to make bolder, more interesting artistic decisions.

Allow yourself access to **all the musical colours and shades available -** you really can sing the rainbow if you want to!

The Circle is read like a 'pie'.

From the circumference to the centre, each slice of the pie tells you the Key Signature of the Major Key and its Relative Minor.

Print it out and place it into your ***Songwriter's Handbook*** for reference.

The Order of Sharps and Flats

Music theory does not need to be cloaked in mystery but instead is part of a universal natural order, similar to the geometric patterns found in nature or the laws of physics that bind us to the life we all experience.

Each key signature is connected to all others and we can look at this through the order of Sharps and Flats.

An easy way to remember these is to use the following ***Mnemonic Devices:***

SHARPS (#)

Father
Charles
Goes
Down
And
Ends
Battle

The Order of Sharps and Flats

FLATS (b)

B
E
A
D (use the word BEAD)
Give
Charles
Food

Using the Circle of Fifths plus the above rhymes, you can work ANY key signature.

For example, A Major on the Circle of Fifths has three sharps within the key.

Now we know the rhyme is **F**ather, **C**harles **G**oes... which means the three sharps inside the key of A are F, C and G.

Now you have two different ways to create and identify scales!

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Modes of The Major Scale

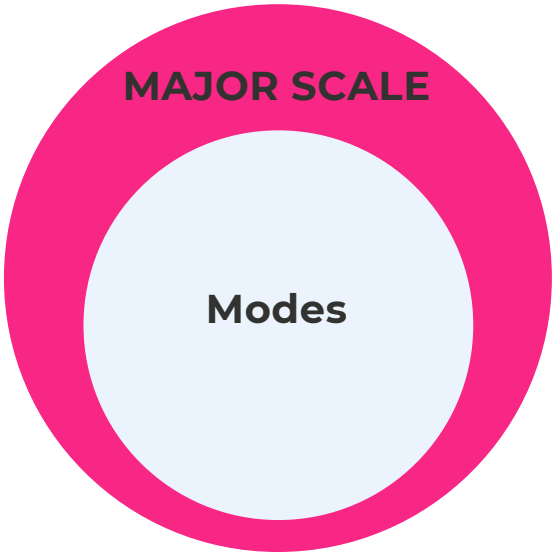
Introducing the Family

So far we have looked at Major Scales and explored their sound. Now we know them and understand their function - let's dig a little deeper.

Within each major scale lives a whole family of other scales and we call this second family the ***Modes of the Major Scale.*** Each mode has its own personality; like an annoying aunt, a cheeky cousin or a sweet grandchild. Some are dark and broody, some are bright and adventurous. It's a wonderfully exciting family!

Meet The Parent

We use the Major Scale as our 'home base', it's the parent scale and the modes live within its key signature. We will always come back to the Major Scale as a reference point, so if you ever feel you have lost your bearings come back home, take a breath and start again.



Exploring the Modes (Cheat Sheet)

Degree of Scale	*Mode Name*
1	Ionian *(AKA the Major Scale)*
2	Dorian
3	Phrygian
4	Lydian
5	Mixolydian
6	Aeolian (*AKA Relative Minor)*
7	Locrian

Mode Formula

Mode	*Formula*
Ionian	T-T-S-T-T-T-S
Dorian	T-S-T-T-T-S-T
Phrygian	S-T-T-T-S-T-T
Lydian	T-T-T-S-T-T-S
Mixolydian	T-T-S-T-T-S-T
Aeolian	T-S-T-T-S-T-T
Locrian	S-T-T-S-T-T-T

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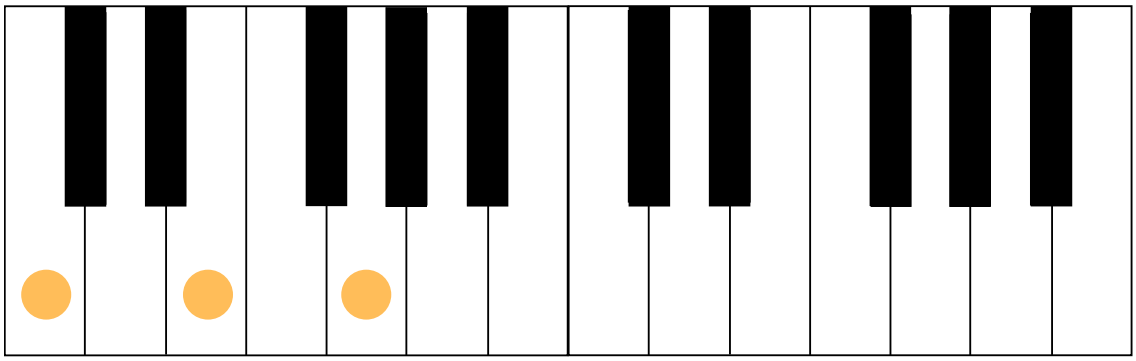
Chords Of The Major Scale

Chords: Triads

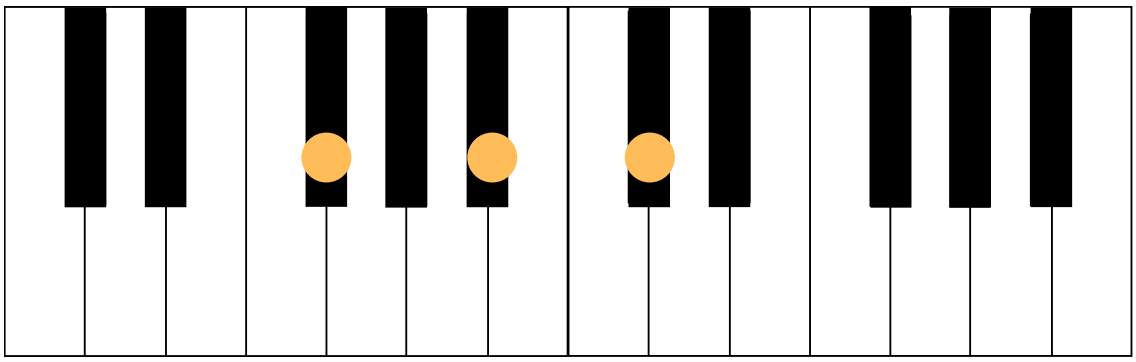
Triads are three note chords and are the basis of chordal harmony. They are created by stacking the first, third and fifth degrees of the scale together.

C Major



1 2 3 4 5 6 7

F# Major



1 2 3 4 5 6 7

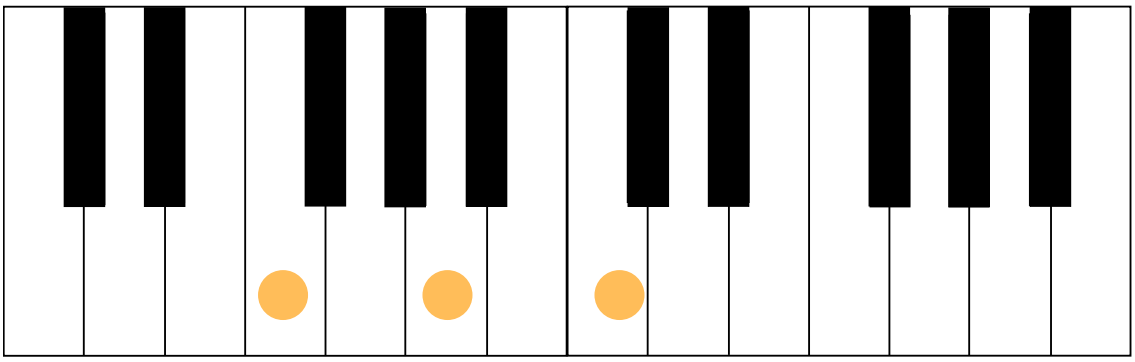
Chords of the Major Scale

Remember we have seven notes inside of the Major scale? We also have seven chords, each relating to each note of the scale.

To work out each chord choose a note of the scale (we have chosen the fourth below) and stack your triad upwards from that note with the same code: one, three, five.

Note: Some chords will be major, minor and dimished, this is normal, don't be worried by any 'weird' chords!

F Major (chord)



Chords Of The Major Scale

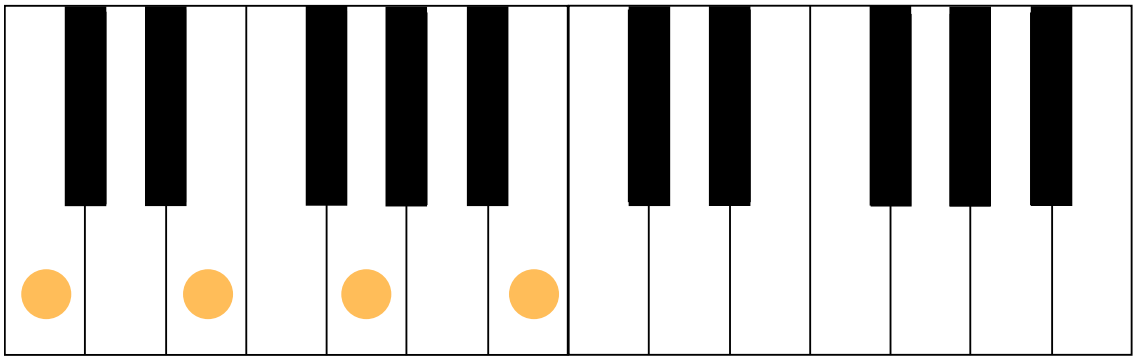
1 Major
2 Minor
3 Minor
4 Major
5 Major
6 Minor
7 Diminished

Chord Extensions

Once the triad is in place we can easily 'extend' them by adding in more notes on top.

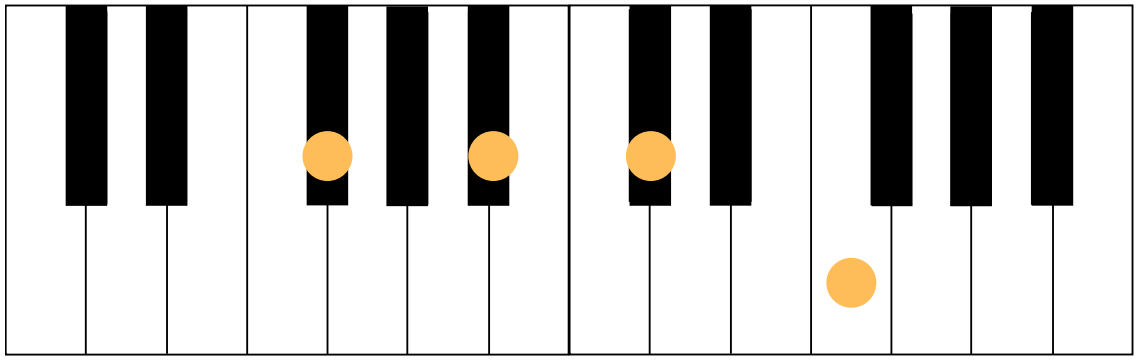
The great thing about extensions is that you can make your chords wide, expansive and really colourful sounding.

C Major 7



1 2 3 4 5 6 7

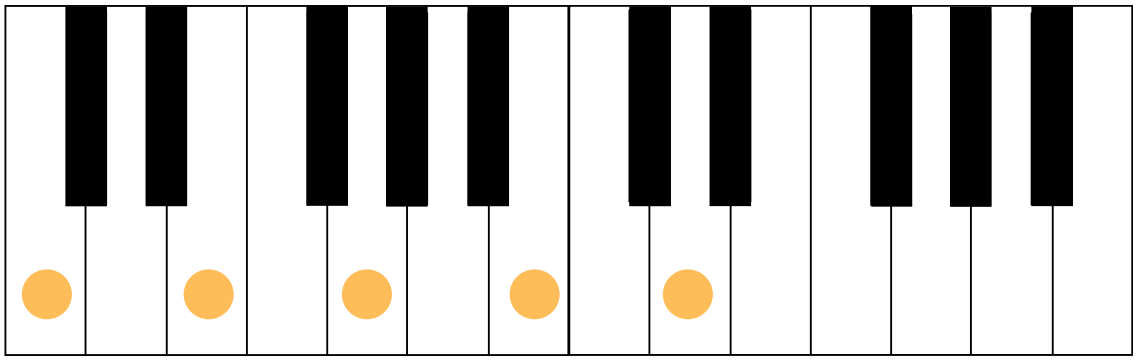
F# Major 7



1 2 3 4 5 6 7

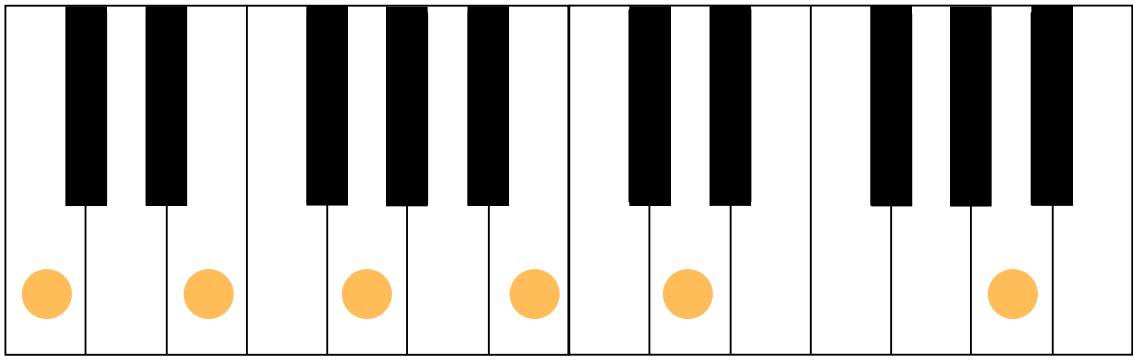
Chords: Extensions

C Major 9



1 2 3 4 5 6 7 8 9 10 11

C Major 13

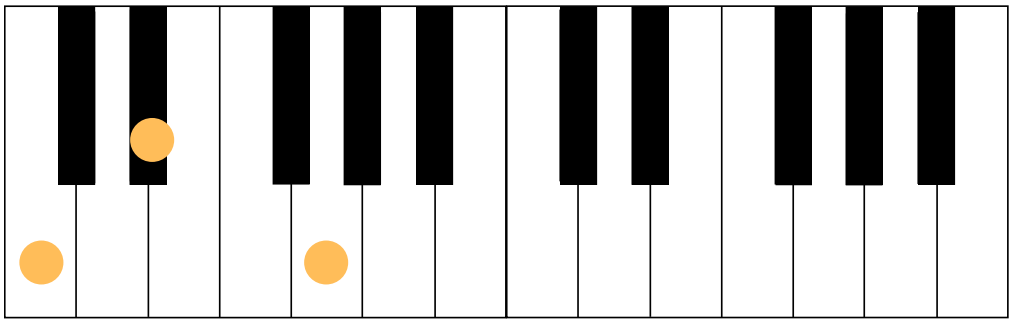


1 2 3 4 5 6 7 8 9 10 11 12 13

Chords: Minor, Diminished and Augmented Chords (Cheat Sheet)

Use the following ‘formulas’ to work out any Minor, Diminished or Augmented Chord.

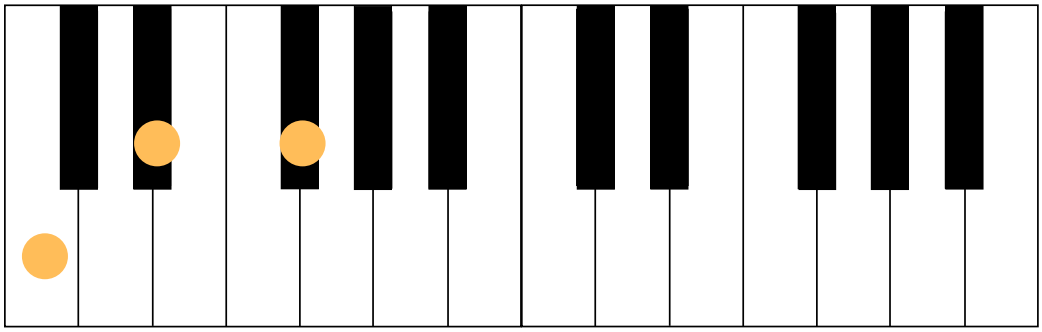
Minor: Root Note (1), Minor Third (3), Fifth (5)



1 2 b3 4 5

Root + 3 Semi-Tones + 4 Semi-Tones ***OR***
Root + Minor 3rd + Fifth

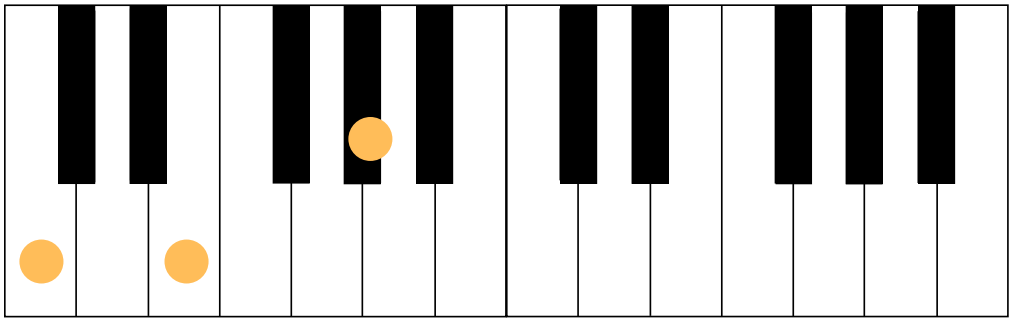
Diminished: Root Note (1), Minor Third (3), Diminished Fifth (5)



1 2 3 4 b5

Root + 3 Semi-Tones + 3 Semi-Tones ***OR***
Root + Minor 3rd + Minor 3rd

Augmented: Root Note (1), Major Third (3), Augmented (5)



1 2 3 4 #5

Root + 4 Semi-Tones + 4 Semi-Tones ***OR***
Root + Major 3rd + Major 3rd

Rule of Thumb

From a Major Chord you can work out a Minor, Diminish or Augmented chord.

Minor: Flatten the Third of a Major Chord

Diminished *(make smaller)*: Flatten the Third and the Fifth of a Major Chord

Augmented *(make bigger)*: Sharpen the Fifth of a Major Chord

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Chord Sequences

Simple (But Effective) Chord Sequences

The following Chord Sequences are simple however incredibly effective and versatile.

Consider using them on their own or start to connect then together in a modular fashion to create longer progressions for your songs.

They are represented using ***Roman Numerals to express the Degree of the Major Scale*** the chord is made from.

This is the most common way of communicating chord structures within the mainstream music industry, with upper case equalling major chords and lower case representing minor chords.

Try them out and see what sounds you like the most, use the list for reference if you are ever stuck and need something to jump off of.

Simple (But Effective) Chord Sequences

IV - V

IV - iii

I - IV - V

vi - IV - V

vi - V - IV

IV - V - vi

IV - V - iii - IV ii - V - I

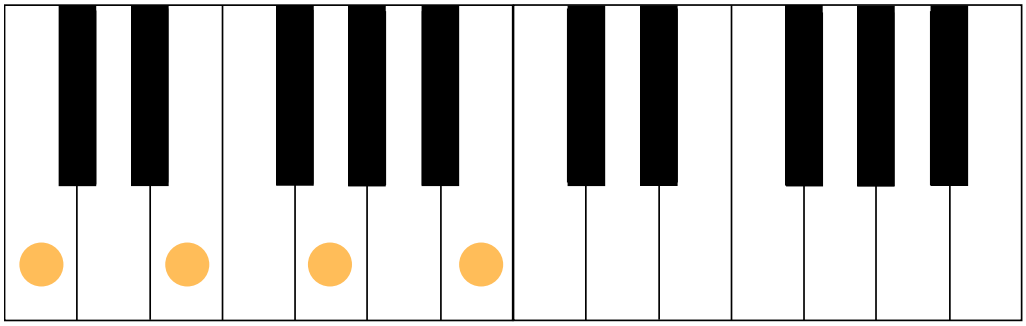
I - vi - IV

Dominant 7 Chords

Transposing between key signatures within your music can add an exciting new element and really elevate the piece. One of the easiest ways to do this is by using a dominant seventh chord as a 'pivot' to go from one key to the next.

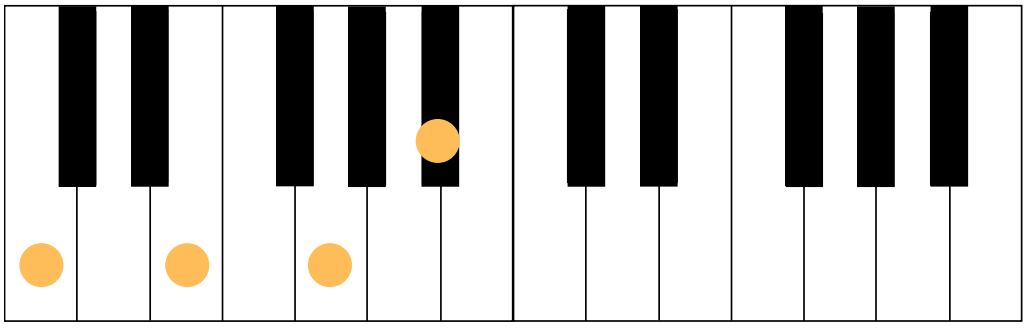
We create these chords by playing a Major Triad and adding on a Minor Seventh (7th) on top of it.

C Major 7



1 2 3 4 5 6 7

C Dominant 7 (simply written as C7)



1 2 3 4 5 6 b7

More Chord Sequences

Sometimes you will hear chord sequences that refer to progressions that 'cycle' through many chords within the key (often - but not always - ending on the ***V*** or the ***I***) as a **circular sequence**.

These sequences can loop around themselves for a while and provide us with long harmonic spaces over which we can compose our melodies.

Use these sequences below to explore a more 'meandering-type' chord structure with some that use every single chord in the key. When practising, sing the root notes out loud to ground yourself within the harmony.

Sequence 1

I -IV-vii-iii-vi-ii-V-I

Sequence 2

vi-IV-V-iii-IV-vii-iii-I

Sequence 3

vi-IV-ii-iii-V-ii-iii-V

Note & Rest Lengths - UK & US

Half step
Semitone

Whole step
Tone

Double-whole rest
Breve rest

Whole Rest
Semibreve Rest

Half Rest
Minim Rest

Quarter
Crotchet

Eighth
Quaver

Sixteenth
Semiquaver

Thirty-second
Demisemiquaver

Sixty-fourth
Hemidemisemiquaver