MUSIC THEORY FUNDAMENTALS

What you need to know as a music composer

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A PREFACE

Thank you so much for downloading this guide. I hold the belief that it is important for every musician to have an understanding of the fundamentals of music theory, in order to bring out the best in their music.

In this guide, I want to cover all the basics of notes, rhythm, pitch, scales, and chords. We'll also discover some simple ways to compose melodies on top of chord progressions to get you up and running. I think these are crucial concepts that will open your eyes to making music in a structured and deliberate way.

Without further ado, let's dive in and learn some music theory!

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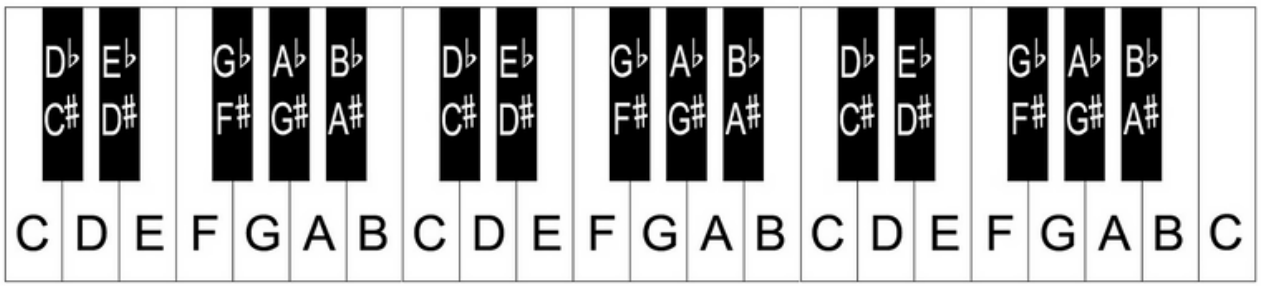
NOTES, PITCH, & RHYTHM

Music as we know it is derived from the 1st 7 letters of the alphabet (A B C D E F G). These letters are arranged into 'notes' on an instrument, and combinations of these notes result in melody and harmony. The resulting sound from each note is called a pitch.

After one set of the alphabet (A-G) is listed, another set follows, then another, etc. In addition, we have raised and lowered notes, labelled sharps (#) and flats (b) respectively.

This is how notes are laid out on a piano:



You'll notice that the sharp (#) notes are one note higher than its regular note, and the flat (b) notes are one note lower than its regular note.

Different combinations of these notes helps us create melody and harmony!

NOTES, PITCH, & RHYTHM

You must also learn that when we play music, notes have different time values. The most standard time measurements are named 'beats', so notes can be as many beats as you like (from 1 to 4, or even longer, or shorter, like 1/2 or 1/4 of a beat long).

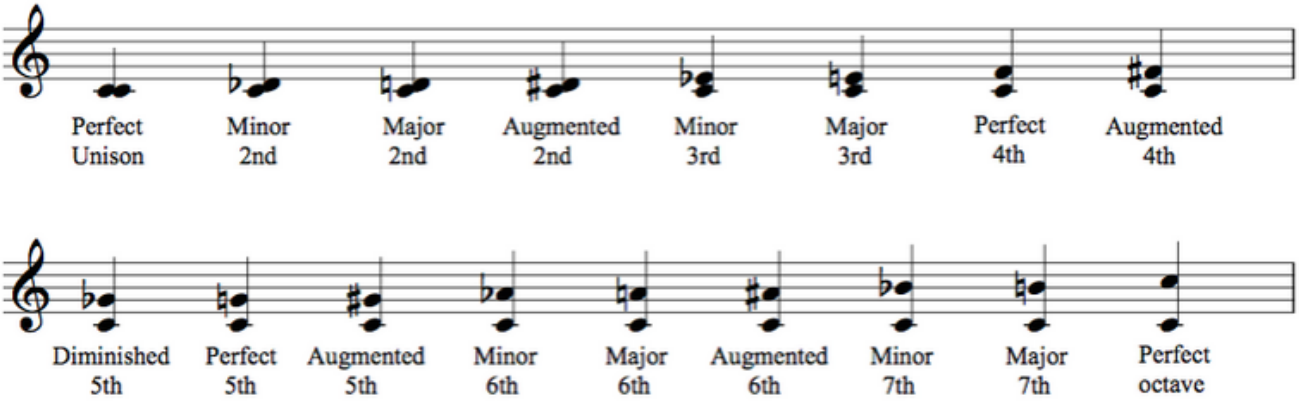
Here is a table displaying common note values:

Notes	Name		Value
	Semibreve	Whole note	4 beats
	Minim	Half note	2 beats
	Crotchet	Quarter note	1 beat
	Quaver	Eighth note	½ beat
	Semi-quaver	Sixteenth note	¼ beat
	2 Quavers	2 Eighth notes	1 beat
	4 Semi-quavers	4 Sixteenth notes	1 beat

It's easiest to think about 'beats' in terms of 'seconds', so if you see a whole note (4 beats), then you'll play it for around 4 seconds. The shorter the amount of beats, the shorter amount of time you play the note. This is the foundation of rhythm.

INTERVALS

An interval is the distance between any 2 notes, and is calculated using letter names. For example, the interval from A up to E is a 5th, because we're counting 5 letters (A B C D E). The most practical intervals are from a 2nd up to an 8th, or an octave. Here's a list of common intervals you should know:



The most important intervals to learn are the minor 2nd (half step), major 2nd (whole step), minor 3rd, major 3rd, and the perfect intervals (unison, 4th, 5th, and octave). However, it's important to become familiar with all of these intervals, as they create distinctive sonorities that you can use in your music.

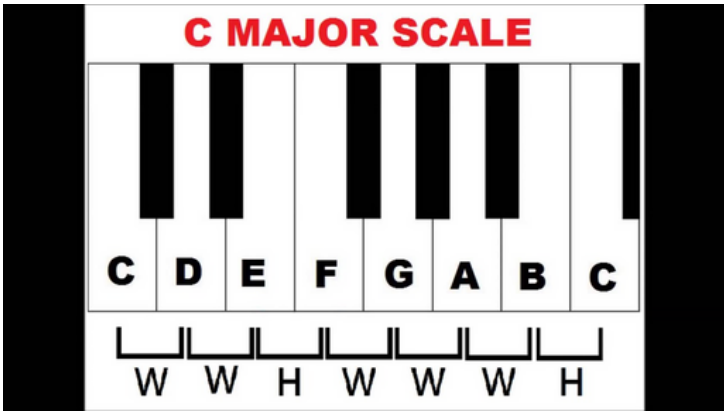
These intervals of 2nds and 3rds will be used to construct scales and chords, which are the building blocks in music. The **perfect** intervals contain an open and almost dreamy quality, useful for songwriting and scoring applications that require those emotions.

SCALES

Scales are built in a series of half and whole steps. We'll learn about the major and minor scales, which sound happy and sad respectively. Here are the formulas for the scales:

Major: W W H W W W H
Minor: W H W W H W W

Remember, a half step is the distance from one note to the very next note, up or down (C to C#/B), and a whole step is 2 half steps (C to D/Bb). Here is the C major scale following its formula:



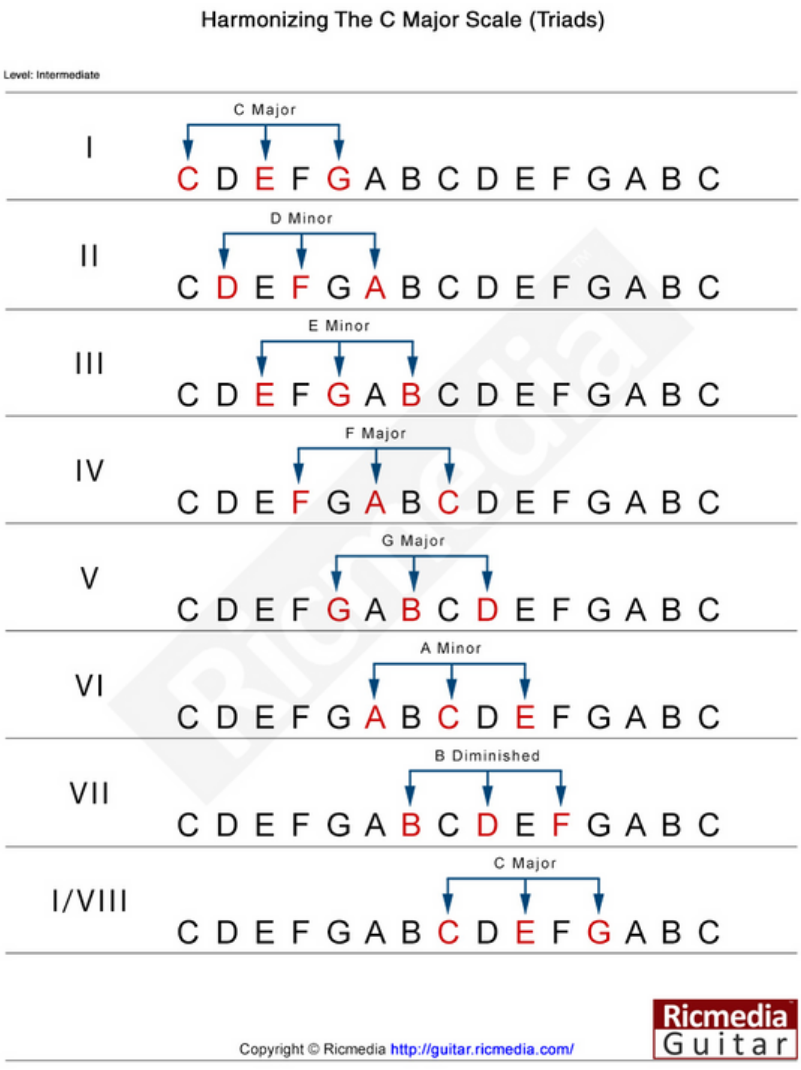
As long as you follow these 2 formulas, you'll be able to create any major and/or minor scale of your choosing, starting on any note on your instrument of choice.

Practice tip: Using these formulas, play the major and minor scales beginning on all 12 notes of the piano (7 white, 5 black), making notes of how many black notes belong in each scale. These are important to recall as you become more familiar with your scales.

CHORDS

Now that we know how scales are built, we can build chords, which are a series of notes played together (3 or more), with the notes stacked in intervals of 3rds. The reason we build chords is because they create the backdrop for our melodies and themes, and deciding which chords to use in any given context is crucial to delivering the intended feelings and emotions.

Here are the basic triads in the C major scale:



CHORDS

What's interesting to note is that the 1, 4, and 5 chords are major chords, while the 2, 3, and 6 chords are minor. Finally, the 7 chord is diminished. Interestingly, this applies for every single major scale, no matter the starting note.

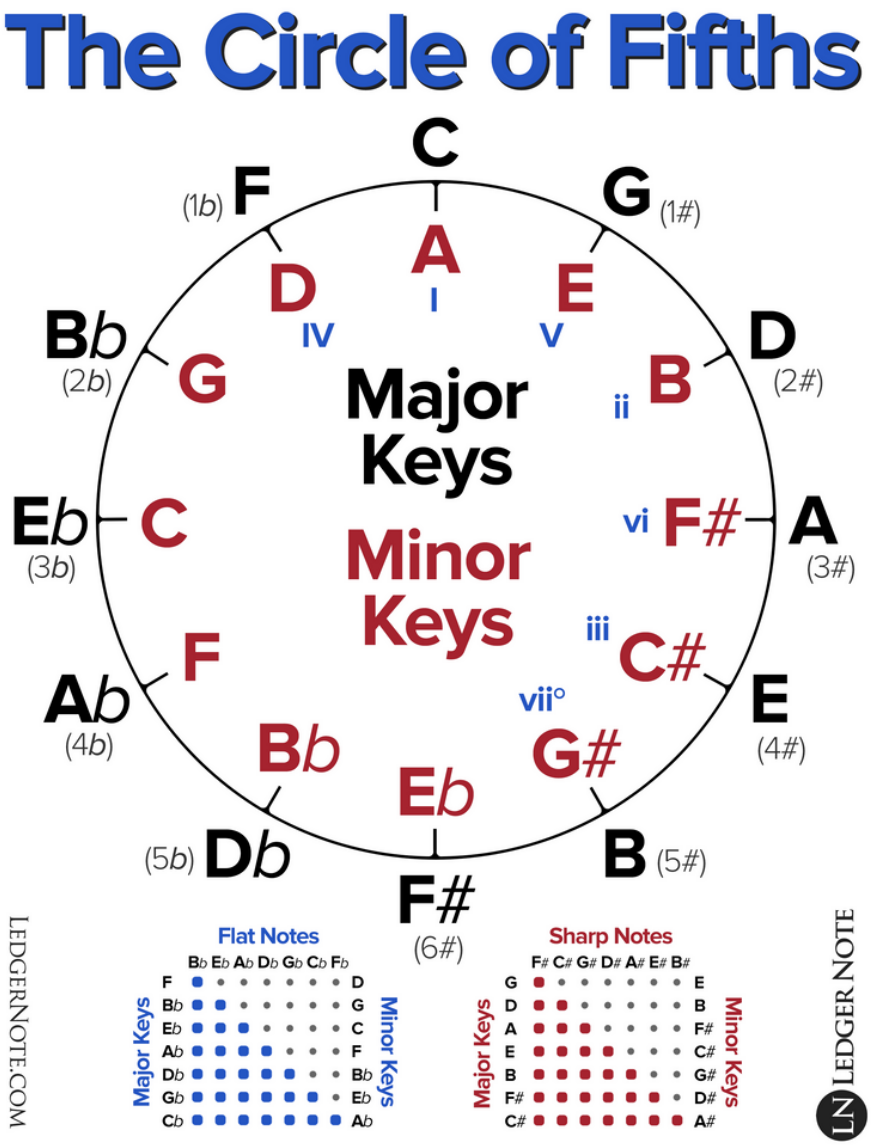
Conversely, in any given minor scale, the 1, 4, and 5 chords are minor, while the 3, 6, and 7 chords are major. The 2 chord is diminished in this case.

Chaining different chords together in a sequence is called a chord progression, which we will touch on a little later. Just keep in mind, the **1, 4, and 5** chords are the **foundation** of every key, or the **primary chords**. You can construct entire songs/pieces just by using these chords.

To add some interest and spice to your triads, you can consider adding an additional note on top of your triad, a 3rd above. Therefore, this creates a **7th chord (1-3-5-7)**, with each note separated by a 3rd. Just remember to keep all the notes within your chosen scale.

THE CIRCLE OF FIFTHS

The circle of fifths is a very visual way to display all 12 major & minor scales, as well as how many sharps or flats each scale contains. As you go further down on each side, the resulting key adds an additional sharp or flat to its scale. The charts at the bottom display which sharps and flats belong to each scale, which I'll further explain on the next page.



THE CIRCLE OF FIFTHS

As shown on the charts above, the sharps and flats appear in a distinctive order. The simplest way to remember the orders is like this:

Sharps: **F**ather **C**harles **G**oes **D**own **A**nd **E**nds **B**attle
Flats: **B**attle **E**nds **A**nd **D**own **G**oes **C**harles **F**ather

So, if you want to play the G major scale, you know from the circle of fifths that it contains one sharp only, and that sharp is F#. If you want to play E major, there are 4 sharps, and those are F#, C#, G#, and D#. Finally, if we want to play Eb major, there are 3 flats, and they are Bb, Eb, and Ab. Make sense?

So, the circle of fifths is an **alternative way for you to think about scales**. It's more visual because you can clearly remember their positions on the circle, and then call to mind the sharps or flats in that scale, based on the charts at the bottom.

Now, you'll also see that the minor keys are in red (or maroon), and are located on the inside of the circle, opposite to each major scale. These are called the RELATIVE minor scales, meaning they contain the same key signature (# of sharps or flats) as their respective major scales. For example, at 12 o' clock, **C major and A minor** are relative scales because they both contain 0 sharps and flats. **G major and E minor** are relative because they both contain F#. To find the relative minor from a major scale, simply go down 3 half steps from the major scale.

HARMONY AND CHORD PROGRESSIONS

As previously discussed in the 'chords' chapter, we can link chords together in order to create chord progressions, which allow a piece of music to flow naturally.

It's important to remember that most Western music centers around the 1 (tonic) and 5 (dominant) chords. You can think of the 1 chord as home, and the 5 chord as being far away from home. Therefore, when you play the chords 5-1, you get a very strong resolution.

Here are some examples of (major) progressions that incorporate various chords from the scale:

Common Keys and Chord Progressions

I	IV	V	I
G	C	D	G
A	D	E	A
C	F	G	C
D	G	A	D
E	A	B	E

I	ii	V	I
G	Am	D	G
A	Bm	E	A
C	Dm	G	C
D	Em	A	D
E	F#m	B	E

I	vi	IV	V
G	Em	C	G
A	F#m	D	E
C	Am	F	G
D	Bm	G	A
E	C#m	A	B

I	vi	ii	V
G	Em	Am	D
A	F#m	Bm	E
C	Am	Dm	G
D	Bm	Em	A
E	C#m	F#m	B

I	IV	vi	V
G	C	Em	D
A	D	F#m	E
C	F	Am	G
D	G	Bm	A
E	A	C#m	B

I	V	vi	IV
G	D	Em	C
A	E	F#m	D
C	G	Am	F
D	A	Bm	G
E	B	C#m	A

HARMONY AND CHORD PROGRESSIONS

As evidenced by the examples above, you'll note a few things:

- The 7 chord is not used, as the diminished chord tends to sound quite distressing on its own.
- Although the 3 chord is not shown, it is perfectly viable (particularly after the 1, 2, or 6 chords.

Here are some general rules of thumb for chord progressions in **major keys**:

- The 1 chord likes to go to any major (4, 5) or minor (2, 3, 6) chord (visiting somewhere away from home)
- The 2 chord likes to go higher (3-6), not back to 1
- The 3 chord likes to go higher (4-6), not lower
- The 4 chord likes to go higher (5, 6), and to 1, 2
- The 5 chord likes to go back to 1, or up to 6
- The 6 chord likes to go lower (2-5), but not to 1
- Generally, avoid the 7 (diminished) chord unless it's resolving up to another chord a half step above

In **minor keys**, the same rules apply, except:

- The 5 chord can be made major (raise the 3rd of the chord) to make its resolution to 1 or 6 stronger
- The 2 (diminished) chord is generally followed by a 5-1 sequence
- The 7 chord is perfectly fair game, with a classic progression being 6-7-1 in minor keys

MELODY WRITING AND COMPOSITION

Finally, let's talk about composing music. I'm sure none of us expect to be the next John Williams (good on you if that's your goal!), but understanding the basics so far will help you by leaps and bounds with your writing.

Let me share a step-by-step process on how I would approach this:

1. Choose a **key** (C major) and a **time signature** (4/4)
2. Create a **chord progression** (1-5-6-4)
3. Write a melody, **using only the notes of each chord**. Stick with basic rhythms (quarter and half notes)
    a. Ex: If I'm on the 1 chord, the melody notes will be C, E, and G.
    b. Attempt to write your melody with a smooth contour, rather than large leaps.
4. Add in **non-chord notes** between your chord notes in order to make your melody more smooth, and easier to sing!

Bonus tip: steps and skips in your melody are easier to sing, while larger intervals (5ths to octaves) require better technique and sound more passionate.

Listen to some of your favourite soundtracks, and try to transcribe the melody and chord progression being performed. This is the best way for you to learn how the music you enjoy really works.

THANK YOU!

My friend, thank you so much for taking the time to read through this guide. I hope it's given you an insight into the fundamentals of music theory, and how useful it can really be for your own writing.

Please note that I do teach theory, piano, and composition through private lessons, so if that interests you, feel free to send me an email at christopher.siu@me.com. Otherwise, if you have any questions, I'm here to help!

If you're looking for more resources to help you along, here are a few channels I can point you to:

Composing Made Simple Discord: https://discord.gg/FYGnpp

Guy Michelmore:
https://www.youtube.com/user/thinkspaceeducation

Alex Moukala:
https://www.youtube.com/channel/UCEKRfoZ5t1VBdWfn9k6UgXw

Ashton Gleckman: https://www.youtube.com/channel/UC9Z0p8W-IvB_2K_cAQdf7bg

Alex Pfeffer: https://www.youtube.com/user/alexpfefferdotnet

Dirk Ehlert: https://www.youtube.com/user/detunede

Orchestral Tools:
https://www.youtube.com/user/HendrikSchwarzer

Cinematic Music Creation (My step-by-step online program):
https://christophersiu.podia.com/cinematic-music-creation