Learn How to Play

Piano / Keyboard

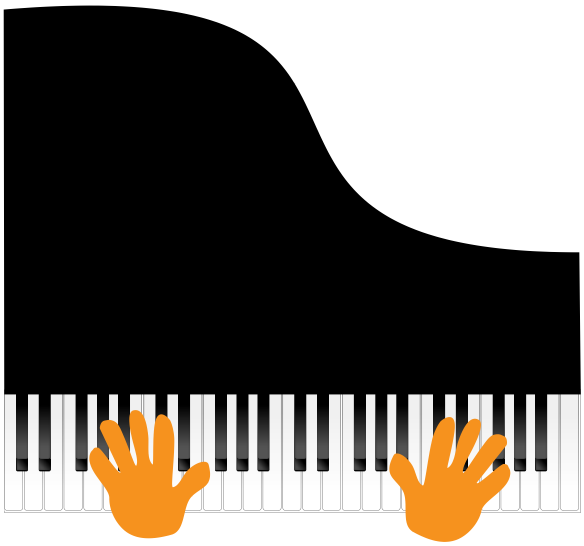
BY EAR!

Without Reading Music

Everything Shown in

Keyboard View

Chords - Scales - Arpeggios etc.



Martin Woodward

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Introduction

Back in the 60's I toured Europe extensively as a musician and during this time I worked with several world class guitarists - superb musicians. But one thing that they all had in common was that none of them could read music.

Ironically, I could read music having had a fairly extensive classical training, yet these guys were teaching me stuff that I'd never heard of.

Since those times I've written a few books on keyboard tuition, mainly geared around learning to read music and playing techniques. But then I got thinking; during my time as a touring soul / funk / prog rock musician, although I could read music, I never actually needed to. When I first joined one particular backing band I was presented with some chord lines to follow, but that's as close as it ever got.

So I can emphatically say that learning to read music won't improve your technical playing ability one iota! How can it? - one is theory, the other practice!

So learning to read music is a total waste of time then?

No, actually I think it's a very good idea. I'm just saying it won't improve your playing technique. It will help you *copy* other people and in some cases this can help you learn. But ultimately *copying* other people is not what it's all about; - great musicians *create!*

"You can't copy anybody and end with anything. If you copy, it means you're working without any real feeling. No two people on earth are alike, and it's got to be that way in music or it isn't music."

Billie Holiday - (Jazz / Blues Legend)

Comment: - Be Yourself - there will only ever be one you!

In short you can become a great musician without reading music, but not without a certain amount of theoretical understanding and a hell of a lot of practice.

One thing that every good musician has in common is that they all have an understanding of scales, chords, harmony and rhythm (which will be covered herein), and would have all spent several hours a day practicing finger techniques. Clearly they were motivated!

In this book you'll find superb exercises to give you a great technique as well as all the theoretical information that you need - all *without* reading music.

This book is unique and very comprehensive, you'll not find anything like it anywhere else.

Items included are:

- Unique 5 finger exercise which will you teach you every major and minor chord as well as begin to teach you the scales;
- An explanation of intervals and scale construction;
- Every major and minor scale (melodic, harmonic and natural) in keyboard view with left and right hand fingering;
- Major and minor pentatonic scales in the most used keys in keyboard view with fingering;
- Blues scales in the most used keys in keyboard view;
- Scale modes;
- An explanation of arpeggios and broken chords;
- Major and minor arpeggios in every key in keyboard view with left and right hand fingering;
- Arpeggio and broken chords exercises;
- Audio links for all of the examples and exercises;
- Chord construction explained in detail;
- Chord fingering;
- Diatonic chords;
- Charts with every chord that you will ever need;
- How to play from a fake book without reading music;
- How to play by ear;
- Plus more!

All in all this is probably the most extensive book of its kind available, in fact probably the only book of its kind.

"If you play music with passion and love and honesty, then it will nourish your soul, heal your wounds and make your life worth living. Music is its own reward!"

Sting

*Comment: And this is true at **any** level of playing ability!*

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Get the Best from this Book

Writing a book which is suitable for every different device is nigh on impossible especially when using music graphics; certainly the ePub and Mobi versions are not ideal for these although I believe that I have succeeded to a great degree and probably better than most. But obviously I want you to get the very best from this book so with this in mind I recommend that you download the pdf version which can be found towards the end of the book - to get there quickly just click here. This can be printed out (for your own use) as and when required.

There are audio links throughout the book which can be accessed two ways:

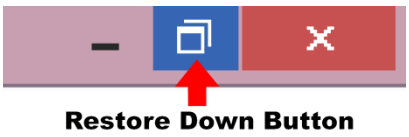
- by using the free external link: http://www.learn-keyboard.co.uk/mobile/by_ear_links.html which gives access to all the links in the order in which they appear in each chapter; or
- by using the links throughout the book which will work best in the pdf version.

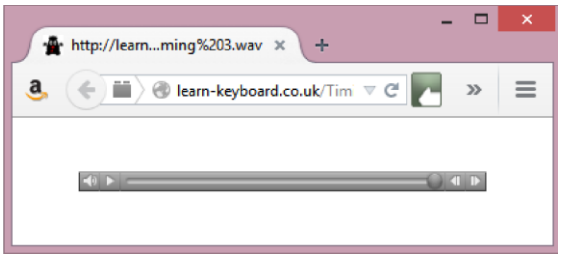
Even if you have the printed version, you may still wish to download the included pdf version in order to gain easy access to the links as they appear in the book.

Using the *in Book* Links

Quite probably you may only need to listen to some of the audio links, but several are included for your convenience.

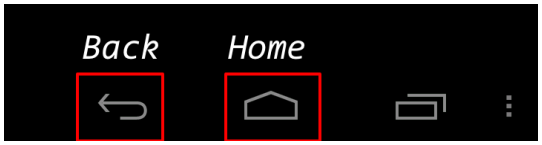
To access the links easily, if you are viewing this on a laptop or PC first of all go to your browser and click the restore down button in order to reduce the view size to something like the image below to the right (by dragging the bottom and sides).



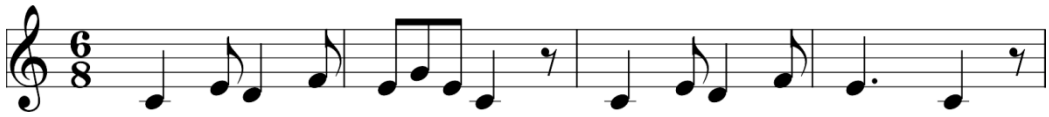


Then click on the link which should then appear in front of the document enabling you to move it out of the way of anything that you may wish to see at the same time.

If you are viewing this on an Android tablet as soon as you click on the link you will lose the book view until you push the 'Back' button (shown below).



If you want to you can have a trial run now by clicking on the following graphic which actually is ‘Pop Goes the Weasel’!



Note that the links may not work if you are viewing this in a Google or Amazon sample. Please go to http://learn-keyboard.co.uk/learn_by_ear.html for a free *working* pdf sample.

Note also that each link will open a new page in your browser, so you will eventually need to cancel them (or just close the browser).

In addition to the external links, there are also numerous internal links to help you navigate to certain reference points in the book and return including the arrows either side of the chapter headings. Clicking the right hand one will take you instantly to the next chapter and the left hand arrow to the beginning of the last chapter.

Also throughout the book I have included a few of my favourite keyboards, please be assured that I am not on commission or anything and certainly would not accept any payment for any inclusions. Links for *all* the major manufacturers can be found on my website so that you can get all the up-to-date relevant information in order to make up your own mind as to what suits your needs either now or in the future!

The Legendary Hammond B3

I had the very great pleasure of owning one of these beasts.
A great machine, but no fun humping them into basement or attic venues!

Many digital keyboards get close to reproducing the sound of this beast with only a fraction of the weight. The Nords and the Korg Kronos in my opinion get closest.

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The Notes of the Keyboard

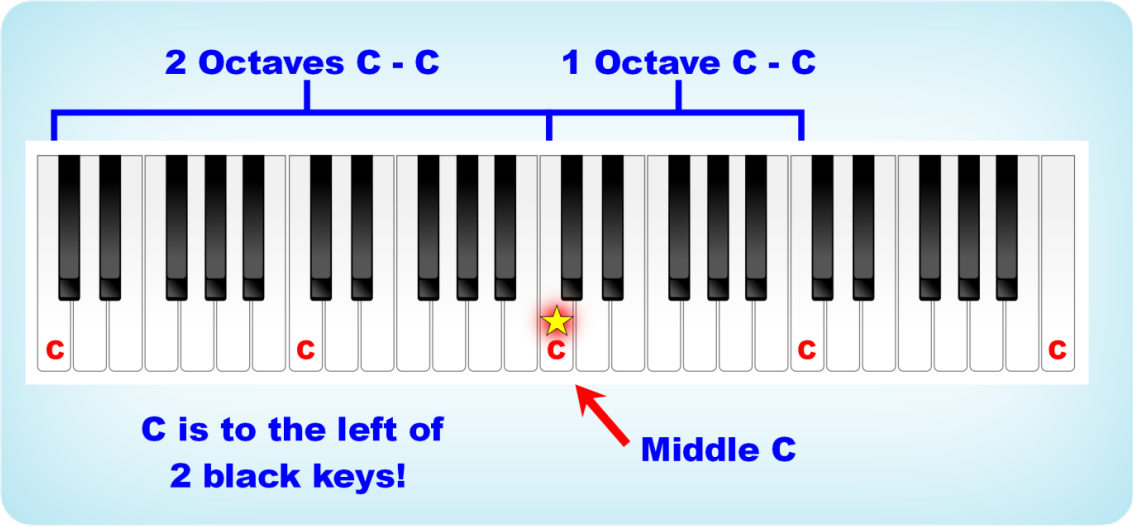
Firstly we'll look at the notes of the keyboard and how to identify them.

Some keyboards / pianos have more keys than others, but this makes no difference in relation to understanding how to play them, as they all have the same basic arrangement of black and white keys.

If you look closely you will see that the black keys are in groups of two then three.

This enables us to find every single note easily. And the first one that you must learn is **'C'** which can be found just to the left of two black keys.

The diagram below shows a four octave span revealing five **C's** each of which are eight notes apart - hence octave - as in octagon - eight!



Probably the most important note on the keyboard is **middle C** which is the **'C'** that is more or less in the middle of the keyboard and because it is so important, we are going to put a star on ours as shown.

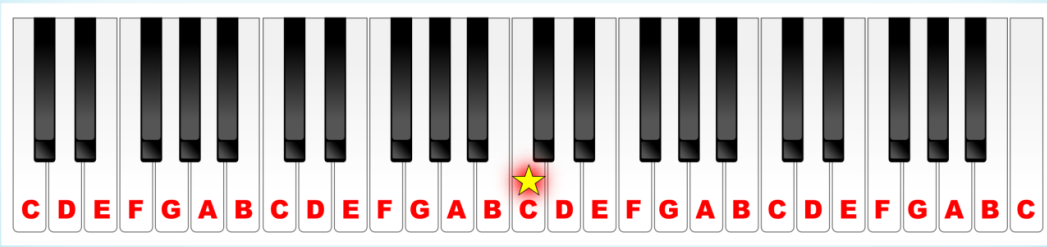
Now all the notes to the left of **middle C** get gradually lower in pitch and all the notes to the right gradually get higher. And usually you will use your right hand for the higher notes and your left hand for the lower notes.

*So which hand plays **middle C**?*

There's no cut off point. **Middle C** and the notes just either side of it are often used by either hand. Just like when you are driving a car, you generally keep to your side of the road, but occasionally you have to move across the centre to go round things!

Now I'll show you what all the other notes are called, but I don't want you to get too confused about all this at the moment. We will be taking it all slowly step by step.

Here's the other notes!



This is mind boggling, how am I going to remember this lot?

Easy, if you split them up into two main groups according to the number of black notes as shown below:

Notes around the Two Black Keys!

C is to the left of 2 Black Keys

E is to the right of 2 Black Keys

D is in between 2 Black Keys

Notes around the Three Black Keys!

F is to the left of 3 Black Keys

B is to the right of 3 Black Keys

G & A are in between 3 Black Keys

And if you can't remember which comes first **G** or **A** you're probably going Gaga - get it? - GA - GA!!

They also progress in alphabetical order from **A** to **G**.

What about the black ones, what are they called?

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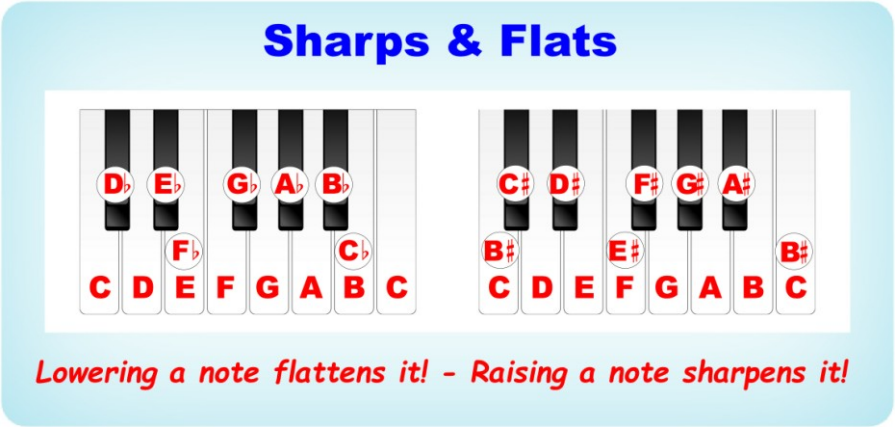
Sharps & Flats

We've already learnt that the interval from one **C** to the next is an *octave*. And indeed this is the same interval from **B - B** or **G - G** etc.

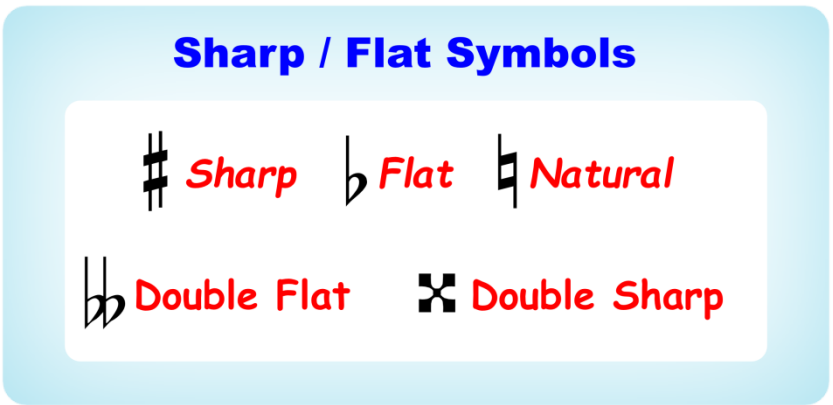
Now the smallest interval in Western music is a semitone which is the interval from any note on the keyboard to its nearest neighbour be it black or white.

So the interval between **C** and **B** is a semitone, and also the interval between **E** and **F** as in both cases there are no black notes in-between. In all the other cases there *are* black notes in-between, so the semitone interval will be to the black note above or below. And as you can see by the diagram below the first black note after **C** is called **C sharp** *or* **D flat**. Note that in some circumstances **B** could also be known as ***C flat*** (as there are no black notes in between) and **C** could also be known as ***B sharp*** - but actually this is very rare.



To *'sharpen'* a note is to raise the pitch and to *'flatten'* one is to lower the pitch.

There are also *double sharps* and *double flats* where the pitch of a note is raised or lowered twice as much (2 semi-tones). But as these only occur occasionally in keys heavily endowed in sharps or flats we're not going to get involved with these here; and it may be years before you come across any.



Whether a particular note is known as a sharp or a flat depends on the key signature which will be dealt with later.

Sharps and flats occur in music in two different ways:

- as accidentals; or
- within key signatures (which could also include accidentals).

I'll explain more about this later.

Why do the black notes have two names? Why not just call them flats or sharps but not both?

Yes, I can see the confusion, but this is because there are flat keys and sharp keys which we'll be learning about later, along with key signatures. If you ask me this question after we've covered these, you may understand better. But actually the only thing that really matters is that you understand that **C sharp** *is* **D flat** etc. Whatever you decide to call them will make no difference to your playing ability, which is what's most important.

But first we'll deal with timing.

Yamaha Clavinova CVP-609GP

If you're looking for a great digital piano as well as a lovely piece of furniture then Yamaha do some great ones. Not cheap, but nice!

If I had the space, I'd have a different keyboard in every room!

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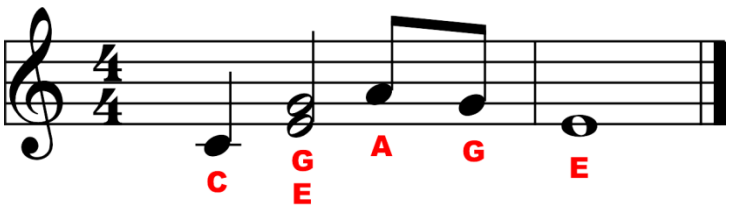
Timing Part 1

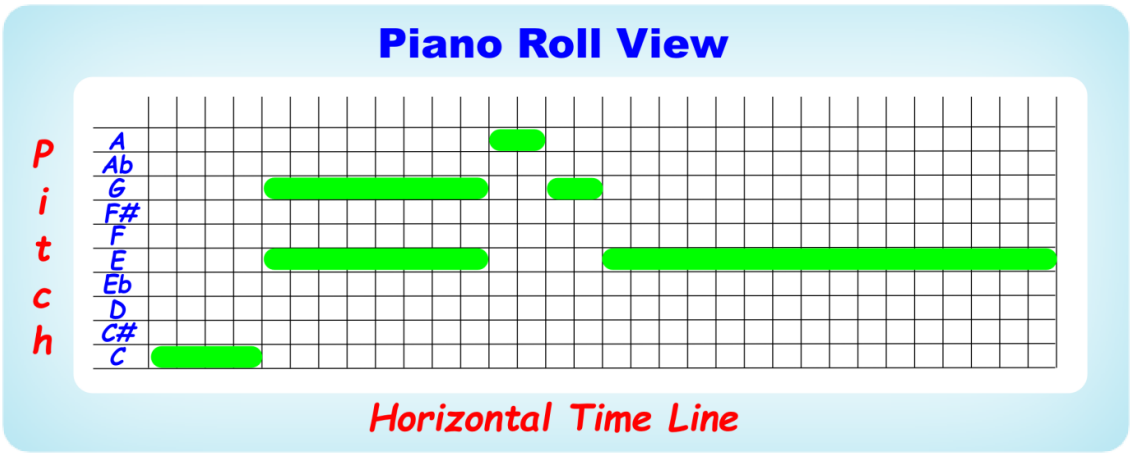
Now although we are not going to deal with music notation in this book, you will need to know about certain aspects of it, i.e. *'timing'*. But don't worry, it's not too complicated.

Music notation is basically a glorified *graph* using groups of lines called staves or staffs, with the 'time line' being the horizontal axis from left to right and the pitch being the vertical axis. How long a note is played for is determined by the time element of the note i.e. crotchet, quaver, minim etc. *When* it is played is determined by how far along the time line it's placed. The pitch of the note is determined by how high or low it's placed on the vertical axis (the stave). Simple - easy peasy - in theory!

As an example in the diagram below, the first note to be played is **C** which is the lowest pitched note of the phrase and is a crotchet (don't worry I'll explain all this shortly), followed by **E** and **G** which are higher pitched and played together. They are both minims which are sustained for twice as long a crotchet. Then we have **A** which is the highest note of the phrase followed by **G** again both of which are quavers being timed half the value of a crotchet. And finally the last note of the phrase is **E** which is a semibreve (notice that it has no stem) which is 4 times the time value of a crotchet.



The next diagram shows exactly the same phrase in graph form or *Piano Roll* form as used in music recording software. Click on either to hear the phrase, if you want to.



Can you recognise the similarities between the two diagrams?

Undoubtedly any untrained musician would find the piano roll view simpler to understand, and it certainly has its uses when editing recorded music. But look at how much space it takes up compared to the first diagram. And remember this is a very short, one hand phrase. So this is why learning conventional music notation is considered very convenient for most musicians. As I've said earlier, learning notation won't make you play any better - this simply requires lots of practice! But understanding the timing aspect is *essential* if you want to make any progress at all. And this we'll begin now.

Time Signatures and Bars

The horizontal axis - the time line; consists of: time signatures, bars and note values.

Each group of notes is separated into 'bars' or 'measures', which are the vertical lines separating the various notes or groups of notes. The time signature, determines how many notes of what length are to be played to each bar, the first beat of which is often slightly or heavily accented.

The most common time signatures are:

- **4/4** - four quarter notes to each bar. Think or repeat '**1 & 2 & 3 & 4 & 1 & 2 & 3 & 4**' etc., and with your right hand tap with the '**1 2 3 4**' beats but not the 'ands'. With your left hand tap on the '**1** and **3**' beats;
- **3/4** - three quarter notes to each bar (Waltz time). Think or repeat '**1 & 2 & 3 & 1 & 2 & 3**' etc., and with your left hand tap on the '**1**' beats and with your right hand on the '**2 / 3**' beats;
- **2/4** - two quarter notes to each bar (March time). Think or repeat '**1 & 2 & 1 & 2**' etc., and with your left hand tap on the '**1**' beats and with your right hand on the '**2**' beats;
- **6/8** - six eighth notes to each bar (two set of three - Jazz Waltz). Think or repeat '**1 2 3, 2 2 3 - 1 2 3, 2 2 3**' etc., (no 'ands' this time) and tap all the

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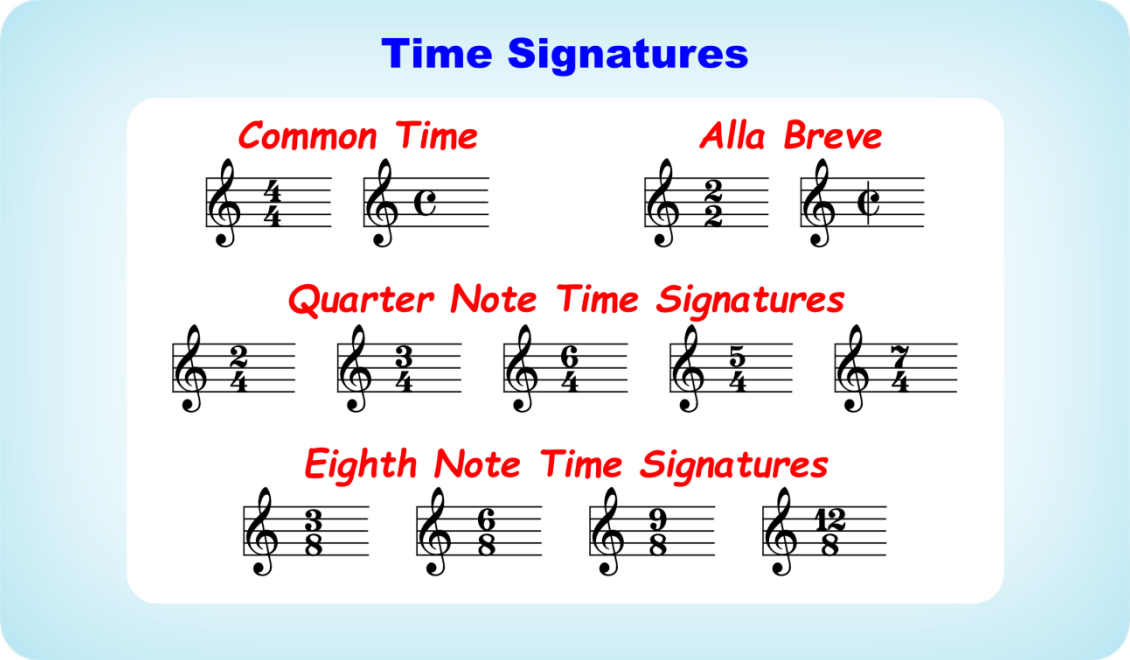
beats with your right hand and the '**1**' and '**2**' beats with your left hand but giving more emphasis on the first '**1**' beat of each pattern. This may seem similar to **3/4** time, but it's generally much faster.

The time signature is always given at the beginning of each piece, and will remain the same throughout unless information is given to the contrary.

The most common time signature without doubt is **4/4** which is also known as *'common time'* and this also has an alternative symbol as shown below as does the **2/2** time signature which is known as *'cut common time'* or *'alla breve'*.



There are other time signatures which we're not going to deal with here, but by the time you come to need them you will understand them perfectly.

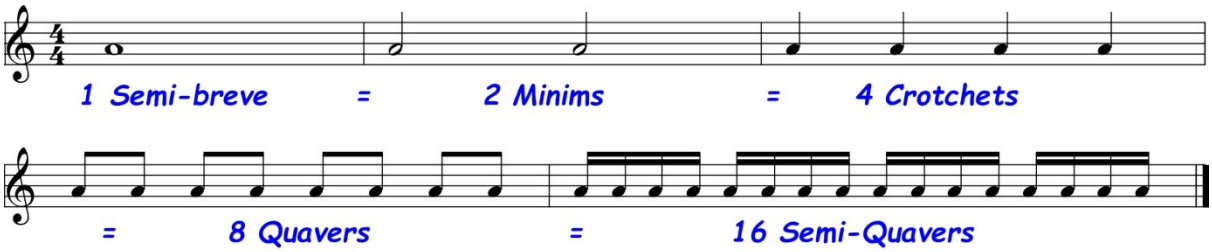
"I think music in itself is healing. It's an explosive expression of humanity. It's something we are all touched by. No matter what culture we're from, everyone loves music!"

Billy Joel

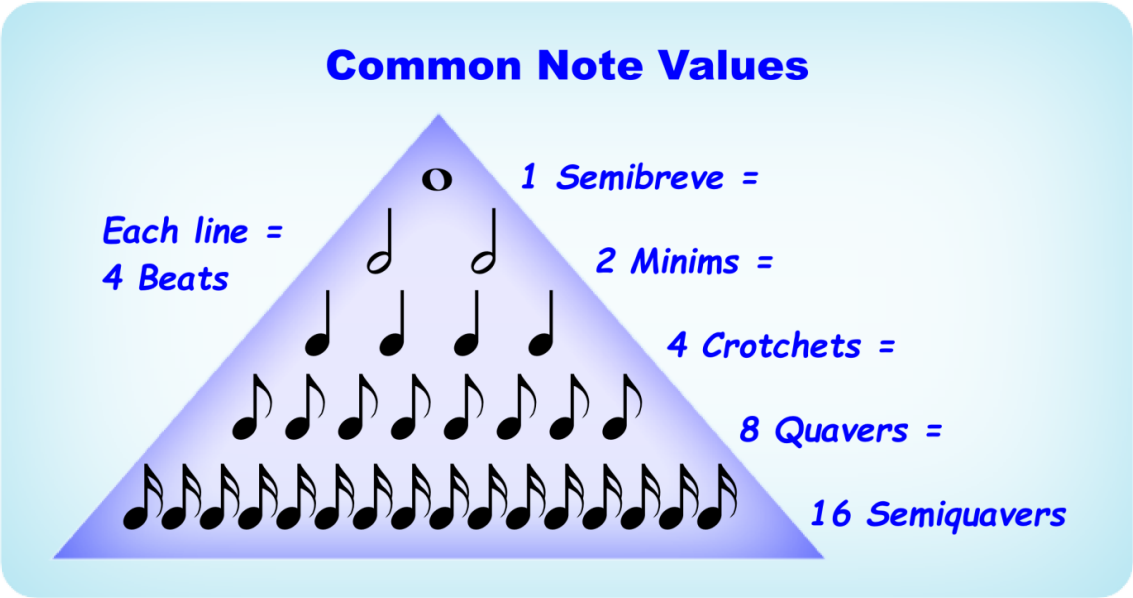
Comment: - And aint that just the truth?!

Note Values

The most important note values that you are likely to come across for a while are as follows:



- The ‘semibreve’ also known as a ‘whole note’ counts as 4 beats (therefore taking up the whole of a **4/4** bar);
- The ‘minim’ also known as a ‘half note’ counts as 2 beats (therefore taking up half of a **4/4** bar);
- The ‘crotchet’ also known as a ‘quarter note’ counts as 1 beat (therefore taking up a quarter of a **4/4** bar);
- The ‘quaver’ also known as an ‘eighth note’ counts as half a beat (therefore taking up an eighth of a **4/4** bar);
- The ‘semiquaver’ also known as a ‘sixteenth note’ counts as a quarter of a beat (therefore taking up a sixteenth of a **4/4** bar). As more *‘tails’* are added to the quaver family the note values halve. So four tails will create a 64th note, but we are not going to go into these here.



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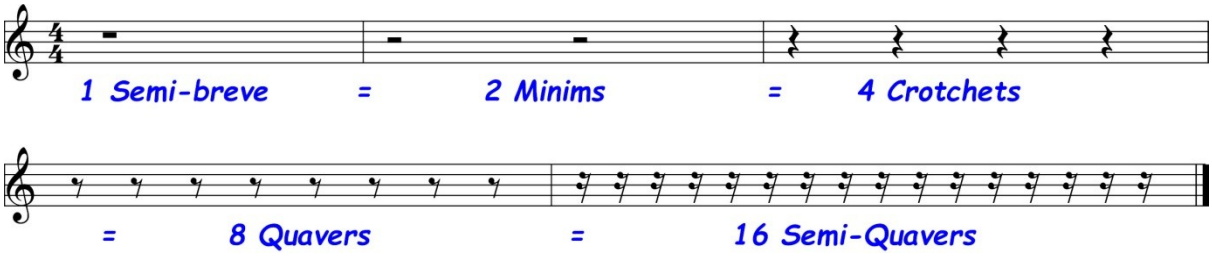
Rests

Each bar must always compute to the correct value except when 'lead in' notes are used in the first bar (shown shortly). Therefore any space where no note is sounded is taken up by a 'rest(s)' which have similar values to the notes.



Note the similarity between the minim and semibreve rests. Although they look similar they are rarely confused as the semibreve takes up the whole bar. I always remember these as a minim *'rests'* and a semibreve *'hangs'!*

*Sorry, I don't get any of this. Could you just explain again exactly what **4/4** timing means?*

Ok, the top '**4**' of the '**4/4**' symbol means that there are four beats to the bar and the bottom '**4**' tells us the value of the beats, and as a crotchet is a quarter of a semibreve, this means that there are four quarter notes (crotchets) to each bar.

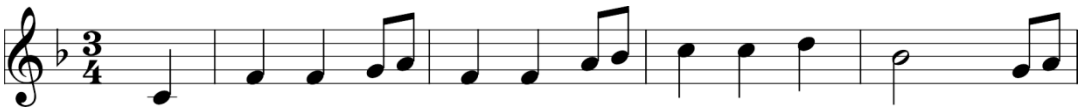
In the case of **3/4** this means that there are three quarter notes (crotchets) to a bar and **2/4**, two quarter notes to a bar.

In the case of **6/8** the there are six 'eighth' notes (quavers) to a bar.

Being totally ridiculous, if the time signature was **19/16** there would be nineteen sixteenth notes (semiquavers) to a bar, but such a time signature does not exist in practice - (maybe on another planet). However, time signatures such as **11/8** and **7/4** etc., although a little unusual *do* exist! - I love both of them and use them frequently!

Lead in Notes

Some tunes don't start on the first beat of a bar, in which case 'lead in' note(s) are used which will make the first bar shorter than the normal bar time. Sometimes (but not always) this is adjusted by also making the last bar a different length to make up the difference. An example of this is shown below which is in fact the first few bars of 'Away in a Manger'.



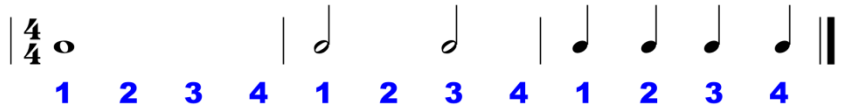
4/4 Timing

Now, looking at the example below, I want you to count out loud or in your head: **1 - 2 - 3 - 4 - 1 - 2 - 3 - 4 - 1 - 2 - 3 - 4** and clap your hands on the beats with the notes. Then you'll be clapping the rhythm.

Notice the **4/4** sign at the beginning and also the '**bar lines**' between each four beats.

4/4 Timing Example

Count evenly and clap on the notes!



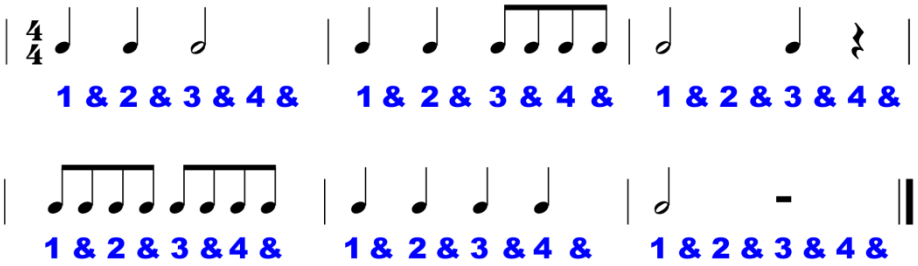
That should have been fairly simple.

Now I'd like you to count **1 & 2 & 3 & 4 & 1 & 2 & 3 & 4 &** etc., as in the next example we're going to include some quavers and also a couple of rests.

If you like, instead of clapping you can tap a steady four beats with your left hand and tap on the notes with your right hand, but don't forget to think the '**&s**' in your head!

4/4 Timing Example 2

Count evenly and clap on the notes!



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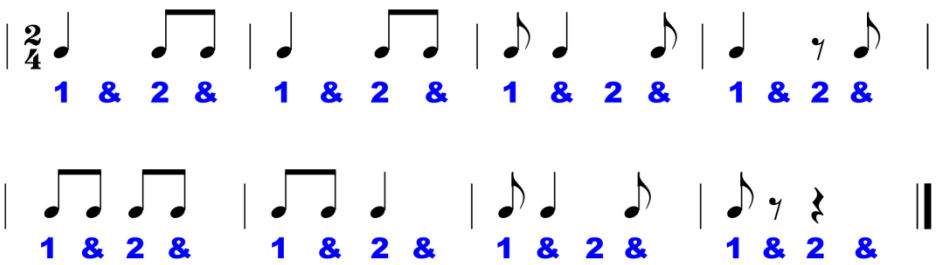
2/4 Timing

2/4, as I mentioned only a short while ago, means that there are two quarter notes (crotchets) to each bar. And this is just like 'marching' time. So when counting as we have done previously, you need to count **1 - 2 - 1 - 2** etc., or **1 & 2 & 1 & 2 &** etc. if there are quavers involved (which there are).

And accent should be given to both first and second beats.

2/4 Timing Example

Count evenly and clap on the notes!



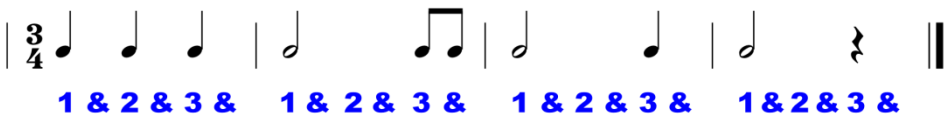
Just about all military music is written in **2/4** timing. If you've ever seen our glorious U.K. Queen's 'Trooping the Colour', you will have heard many! But **2/4** timing is also extensively used in all types of music, including folk and classical.

3/4 Timing

3/4 timing is Waltz timing and should be counted: **1 - 2 - 3 - 1 - 2 - 3** etc., or if there are quavers involved: **1 & 2 & 3 & 1 & 2 & 3 &** etc., with accent on the first beat only.

3/4 Timing Example

Count evenly and clap on the notes!



So exactly how long in time is a crotchet?

There is no set time, but they are always equal unless the tempo changes during the piece. The tempo for every piece of music is generally indicated at the beginning by showing how many crotchets there are per minute or in classical music the following *Italian* terms are used:

Italian		Translation		Beats per Minute
Grave	-	*Very Slow / Solemn*	-	*40 - 44*
Largo	-	*Slow*	-	*46 - 48*
Lento	-	*Slow*	-	*50 -52*
Adagio	-	*Leisurely*	-	*54 - 56*
Andante	-	*Easily*	-	*58 - 63*
Andantino	-	*Slightly Faster*	-	*64 - 72*
Moderato	-	*Moderately*	-	*74 -92*
Allegretto	-	*Fairly Quick*	-	*96 - 108*
Allegro	-	*Quick / Lively*	-	*112 - 116*
Vivace	-	*Briskly*	-	*120 - 132*
Presto	-	*Fast*	-	*138 - 168*
Prestissimo	-	*Fast as Possible*	-	*176 - 208*

So why are all these terms in Italian?

Because many of the most important composers from the Renaissance to the Baroque period were *Italian*. That's just about all the composers who eat spaghetti and who's names end in *'i'!*

If you can't access the links direct (by clicking on the graphics), the web page link for this chapter is: http://learn-keyboard.co.uk/timing_2.html .

Korg SV-1 Stage Piano (88 notes)

If you're looking for a great looking and great sounding, no gimmick portable piano, this could be the one for you, but you will need an external amp and speaker.

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Using a Metronome

If you have a modern electronic piano or keyboard there will almost certainly be a built in metronome which can be altered to any specific time value. Note that as well as setting the timing you will also need to set how many beats there are to a bar and the metronome will then 'ding' on the first beat of every bar and 'tick' on the others.

If you've listened to any of the links so far, you'll notice that I've added a metronome to them - with the 'ding' at the first beat of each bar (or measure).

If you are using an acoustic instrument, you will need an external metronome. Electronic versions are widely available and are very inexpensive, but there's something really special about the old fashioned traditional clockwork versions which unfortunately are more expensive. I love them - they come in the same category as cuckoo clocks for me - a touch of nostalgia! - But all they do is tick, tock and ding - no cuckoos!

What about when a piece slows down or speeds up?

In this event the no metronome (electronic or mechanical) would be able to cope with the infinite possibilities, but in these events the following terms are used in the music notation:

Italian		Translations
Accelerando	-	*Increase speed*
Rallentando	-	*Slow down*
Ritardando	-	*Slow down*
a tempo	-	*Resume original tempo*

That's it for timing and rhythm for the time being. I'll show an example of **6/8** timing a little later, as this requires the need for dotted notes which we haven't dealt with yet.

Let's Begin

Hopefully you now understand a little of the theory explained so far which obviously is important. But having understood this of course you also need the physical technical ability to hit the right notes with the correct velocity in the right order at the right time. This may take months of intense practice to become reasonably proficient and years to become superb. But make no mistake about it *anyone* can do it - at any age. Don't let anyone ever tell you that you are too old or too anything else to do this - I repeat - ***anyone can do it!*** And if you're knocking on a bit like me, it could give you a new lease of life!

In short the more you put into it - practice - the more pleasure you will get out of it. The satisfaction achieved is totally immense. And there are some wonderful pieces of music available that are relatively easy to play. But it's never worth going beyond your capabilities as this will just cause anxiety. Take it one step at a time!

"After silence, that which comes nearest to expressing the inexpressible is music!"

Unknown

Correct Hand and Seating Positioning

Firstly it's a good idea to make sure that your hands are clean and warm. You can achieve this by soaking them in warm water for a while, but then dry them thoroughly. Alternatively, sit on them to warm them up; but if you happen to be sitting on a cold marble slab, nestle your right hand under your left armpit and your left hand under your right armpit for a while which is a method that I used regularly whilst gigging around Europe during the cold winters of the 60's.

The next thing is to be sure that you adopt a correct seating position so that you can achieve the correct hand position. If your seating is incorrect (too low or too high) then your hand positioning will never be correct. I recommend using a height adjustable piano stool so that you can experiment in order to get comfortable. Or of course you may have an adjustable keyboard stand.

Do also take into account the fact that you may need to use the pedals, or at least the sustain pedal. So both feet should be comfortably flat on the floor to begin with.

And of course your stool should be positioned so that you are seated more or less in the centre of the keyboard - belly button opposite **middle C**!

The next pictures illustrate the correct and incorrect hand positions.

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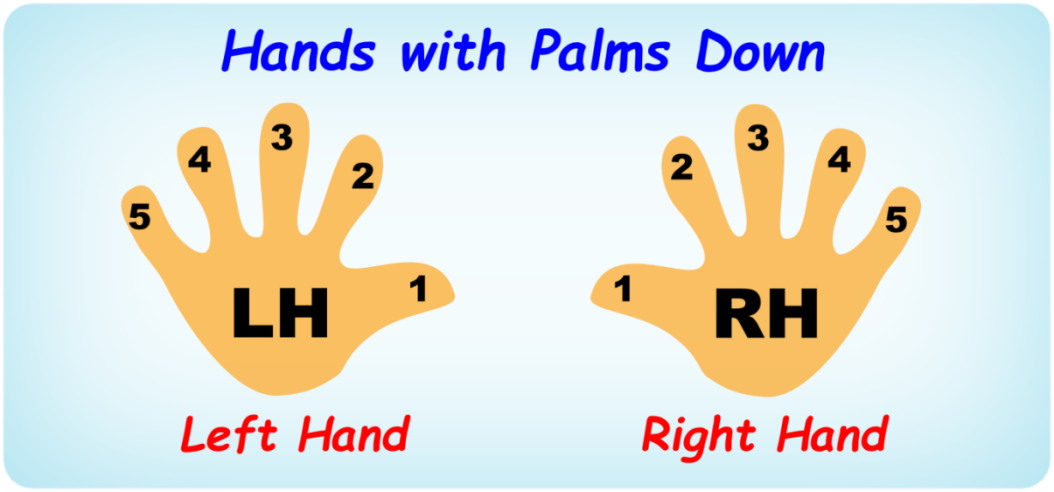
Fingering

As far as music is concerned what most people will call their 'first' finger is their 'second' finger as in music the 'first' finger is always your thumb (on both hands).



Your First Exercises

The first exercises that I am going to show you are simple but extensive and of course require no music reading skills. But don't be mislead into thinking that you can learn these and then forget about them - they are superb ongoing exercises which I still use now.

They are great for the following reasons:

- They will create strength and flexibility in your fingers;
- They will effortlessly teach you the first half of the major and minor scales in every key;
- They will (indirectly) teach you every major and minor triad chord in every key;
- They're easy and fun!

To perform these exercises we'll be using a series of patterns with lots of segments, the first of which is shown below.

Pattern 1 - Right Hand

1 - 2 - 3 - 4 - 5 - 4 - 3 - 2 - 1 - 3 - 5 - 3 - 1

C Major

C Minor

Begin by resting the fingers of your right hand lightly on the five notes shown in the first diagram (above left) in a relaxed claw like position; then when you are ready begin depressing the keys in the order shown in *Pattern 1* in a piston type motion using the tips of your fingers and the side of your thumb. Make sure that you release each note before playing the next except for the last note which can be sustained a little longer. And try to play each note with equal pressure, which I know is not easy at first.

Hopefully to make this perfectly clear - your first finger (thumb) starts on middle **C** in the first segment and in *pattern 1* each note (from **C** to **G**) is played in order up and down until the last five notes where the **1 - 3 - 5 - 3 - 1** pattern kicks in which is the major triad in the first segment and the minor triad in the second (right hand diagram above).

Most importantly keep to a strict rhythm which can be as slow as you like, ideally use a metronome set to a comfortable speed. Each exercise should be repeated several times and speed can be increased only as you gain experience.

"I started out with nothing and I've still got most of it left!"

Seasick Steve

Comment: Rock on Steve, we all love you!

All of the exercises can be heard by clicking on the hyperlinks (the *pattern buttons* at the top and bottom of each page in part 2) or by downloading them from the website.

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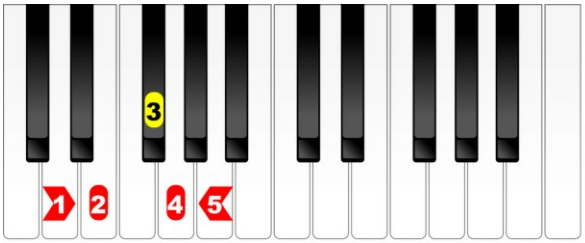
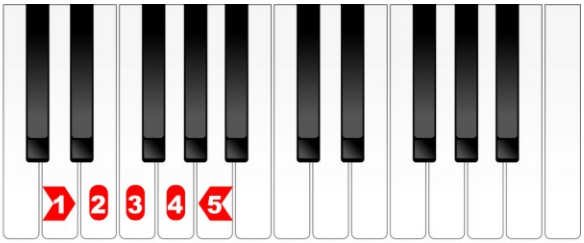
Having completed the first segment, move your fingers up a notch to the next segment as shown next and repeat the same pattern with the new notes, which will show different *'part scales'* and triads. Continue through all the segments.



D Major



D Minor

What do you mean by 'part scales'?

The five notes of each segment are the first five notes of the respective major and minor scales. You will see the rest of each scale later as we deal with them, but because these have *five* notes don't get them confused with *pentatonic scales* which are something completely different which we'll also be dealing with shortly.

Having completed each segment, you'll see at the bottom of each page that there is a *mirror version* for each pattern. In this case, as you should see it's the same pattern the other way round, which starts with your 5th finger (on **G** on the first segment).

Pattern 1 - Right Hand - (mirror)
5 - 4 - 3 - 2 - 1 - 2 - 3 - 4 - 5 - 3 - 1 - 3 - 5

Using the mirror pattern ensures that each finger benefits equally in each pattern.

Before progressing to *pattern 2*, do the same again with your left hand starting an octave below **middle C** and then practice with both hands together. When you feel ready, progress through the remaining four patterns using the same technique.

Ideally these should be practiced in three ways:

- Legato - which is smooth and connected;
- Staccato - where each note is detached; and
- Swing - in swing feel.

Examples of these can be heard by clicking the links below.

Legato **Staccato** **Swing**

All of these exercises are in part 2. What I'd like you to do now is go there and begin practicing, then return here to read on, but keep practicing these as you read through the rest of the book. These exercises alone should give you plenty to do for a while.

If you can't access the links direct (by clicking on the graphics), the web page link for this chapter is: http://learn-keyboard.co.uk/lets_begin_2.html .

Quick link to exercises in part 2.

"I'm trying to get people to see that we are our brothers' keeper, I still work on it. Red, white, black, brown, yellow, rich, poor, we all have the blues!"

B.B. King - (Blues King!)

Comment: His recent demise was a sad loss to the music world!

Clavia Nord Stage Piano (88 notes)

Clavia Nord arguably make the very best stage pianos.
I have to agree that they sound and feel superb, but can be pricey!
But don't get them mixed up as there's lots of different models that look similar:
- the piano, the stage, the electro and the synth - all great keyboards!

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Timing Part 2

In the last timing section, we dealt with the main time signatures as well as the note values. Now we're going to look at dotted notes, triplets, tied notes and grace notes, which will enable us to create far more interesting rhythms.

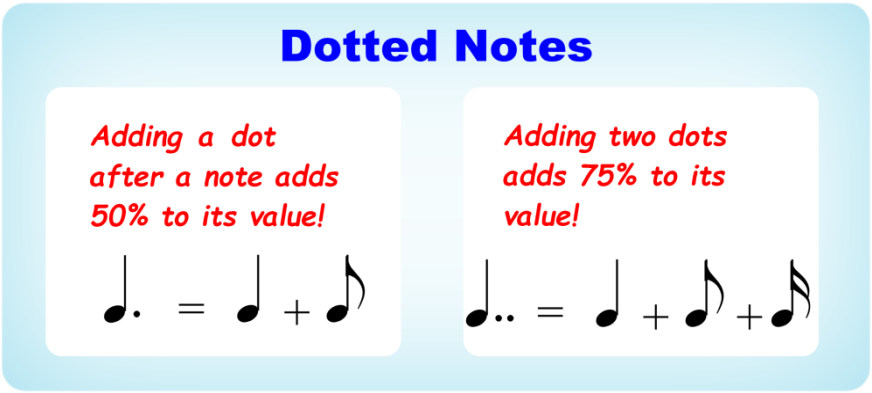
So just to re-cap so far we have covered:

- Semibreve = 4 beats (often referred to as a whole note);
- Minim = 2 beats (often referred to as a half note);
- Crotchet = 1 beat (often referred to as a quarter note);
- Quaver = half a beat (often referred to as an eighth note);
- Semiquaver = a quarter of a beat (often referred to as a sixteenth note);
- **4/4 - 3/4 - 2/4** timing & **6/8** timing (briefly).

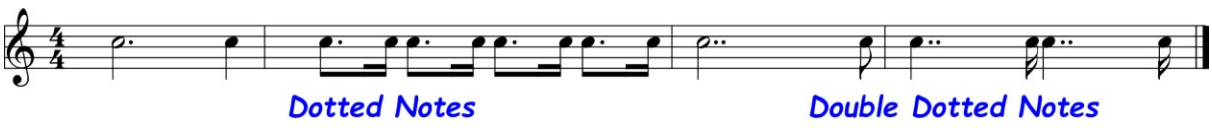
If you are at all unsure about any of the above, please refer back to the previous timing and rhythm chapter (click the red arrow twice to get there quickly).

Dotted Notes

A single dot after (not over) a note or rest increases its length by 50%. Therefore a dotted minim for instance would then count as 3 beats instead of 2. Two dots after a note increases its value by 75%, making a double dotted minim count as 3.5 beats.



The next diagram shows examples of how these fit into **4/4** bars.



And what about dotted rests?

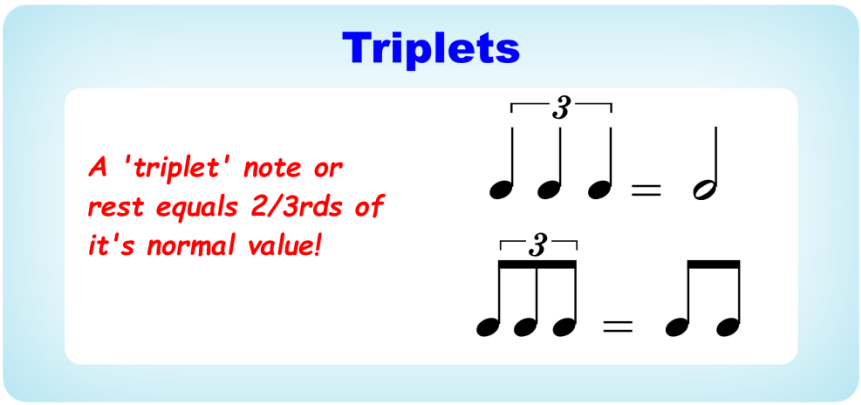
Yes, there are also dotted rests which work exactly the same.

And what about dots above or below notes?

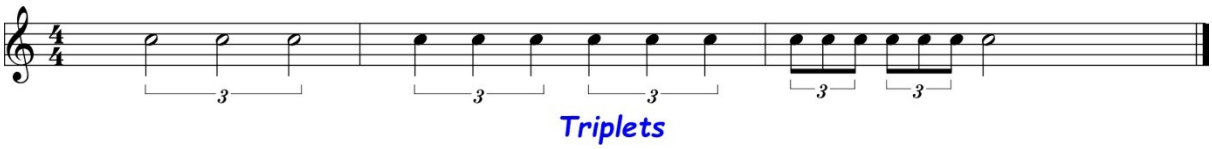
That means the notes should be played 'Staccato', but this is not a *time* element, so doesn't concern us here.

Triplets

Triplets are used when the timing of a group of three notes is divided equally between a beat (or combination of beats). For instance a 'triplet' of three crotchets would take up the space of only two and of course the timing of these would change accordingly. Similarly, a 'triplet' of three quavers would take up 1 beat and not 1.5.



And the next diagram shows how they fit into **4/4** bars.



At first playing two beats with one hand (in the bass) and three with the other is a bit tricky, but actually you will have heard triplets in many songs and will have sung or hummed along quite easily and naturally.

One well known song with lots of triplets that comes to mind is 'Fool on the Hill' by the Beatles which is in **4/4** timing.

If converting a complicated solo into music notation it will often be found that groups of 5 or 7 or more notes are divided into a single beat. In this case the appropriate numeral will be seen instead of the '3'. This is often seen in classical music as well as pop and jazz etc.

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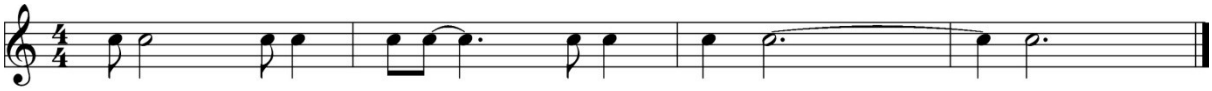
Tied Notes

Generally notes are written in a way which allows each beat to be identified easily. In order to achieve this, where necessary certain notes are tied together. In this event only the first note is played, but is held for the length of both 'tied' notes.



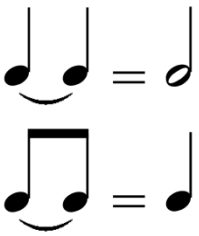
Tied Notes

Notice that bars 1 and 2 of the above are identical and could be written either way whereas the tied notes in bars 3 and 4 have to be written as shown as they cross the bar lines - remember each bar must compute to the correct value, you can't have leftovers!

However please don't get these symbols mixed up with phrase marks (or slurs) which look similar but have a totally different meaning.

Tried Notes

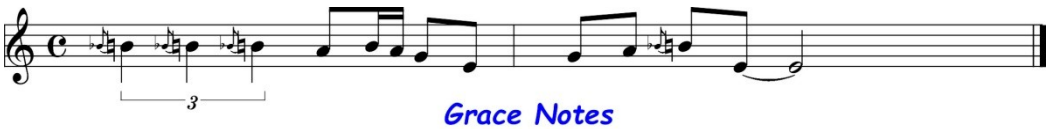
When two or more notes are tied together only the first one is played for the timing of both or all of the notes!



Grace Notes

A grace note which is written as a very small quaver usually a semitone above or below the following note, is a very quick slurred note and takes up 'no time' in the bar time calculation. Again these are used in all types of music, but extensively in jazz and blues.

The following example shows grace notes, triplets and tied notes.



Grace Notes

Notice that in the last example I've used the 'common time' '**C**' symbol instead of the **4/4** symbol (as shown earlier). Note that this, as well as the **2/2** *alla breve* symbol are purely optional alternatives.

Grace Notes

A grace note takes up 'no time' in the bar calculation These are usually a semi-tone below or above the 'main' note!

"The beautiful thing about learning is that nobody can take it away from you."

BB King - (King of the Blues)

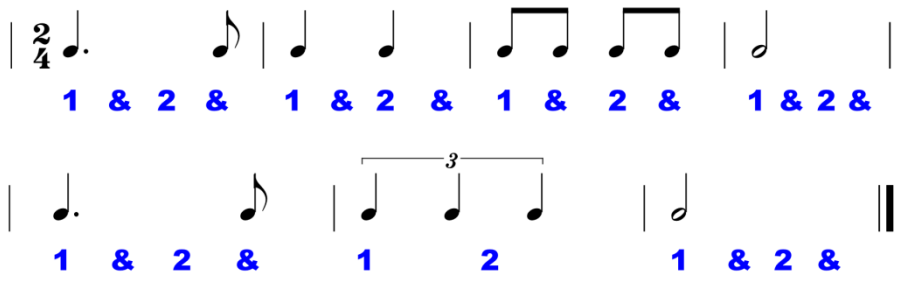
2/4 Timing with Triplets

Here's an example of **2/4** timing with triplets and dotted notes.

As before, count **1 & 2 & 1 & 2 &** etc. until you come to the triplets, then just count **1 - 2** and clap or tap on the notes.

2/4 Timing with Triplets

Count evenly and clap on the notes!



Click on any of the graphics to hear these and notice how the triplets go *across* the beats!

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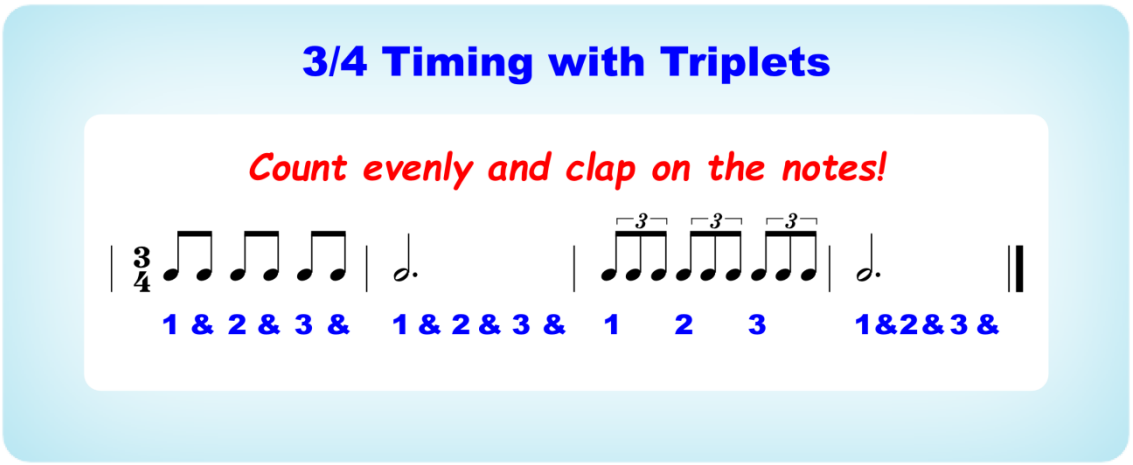
3/4 Timing with Triplets

And the same with **3/4** timing, just count **1 - 2 - 3** when you come to the triplets. But notice here that they are triplet quavers as against the crotchets above!

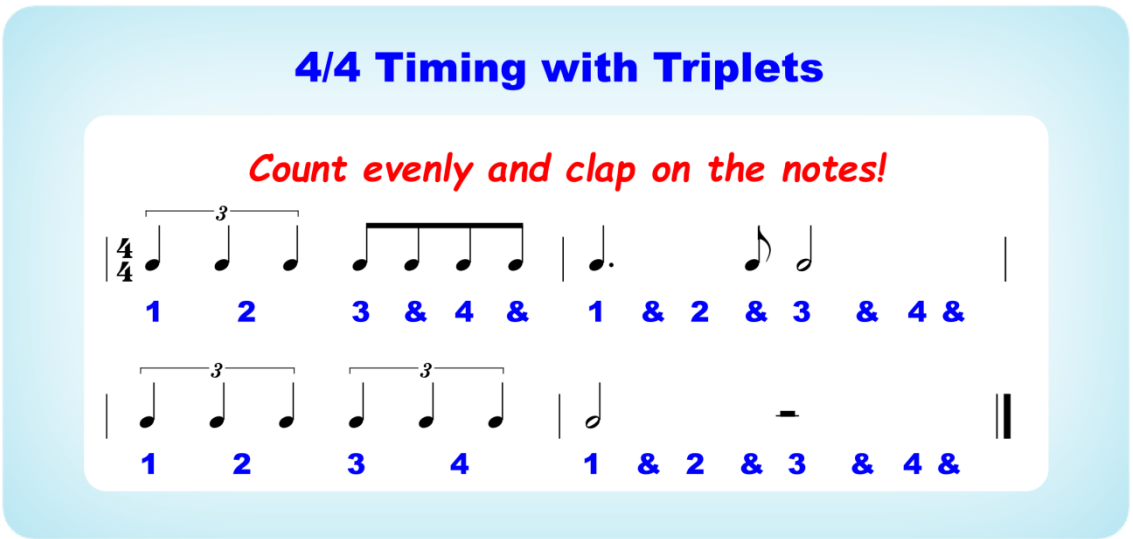


"It's a great thing about being a musician; you don't stop until the day you die, you can improve. So it's a wonderful thing to do."

Marcus Miller (Jazz composer)

4/4 Timing with Triplets

And finally a triplet example with **4/4** timing, but this time there are triplet crotchets and normal quavers in the same bar, so count **1 - 2 - 3 & 4 &** for that bar!



And now on to **6/8** timing which we only touched on briefly previously.

6/8 Timing

6/8 is different to all the previously mentioned time signatures. This means that there are six eighth notes (quavers) to each bar, and these are always two groups of three quavers. So for this you will need to count: **1 - 2 - 3 - 2 - 2 - 3, 1 - 2 - 3 - 2 - 2 - 3** etc. At first you may think that this is similar to **3/4**, but it's not, as the quavers in **3/4** would be three sets of two rather than two sets of three.

So really **6/8** timing is *natural triplet timing,* **9/8** and **12/8** are similar.

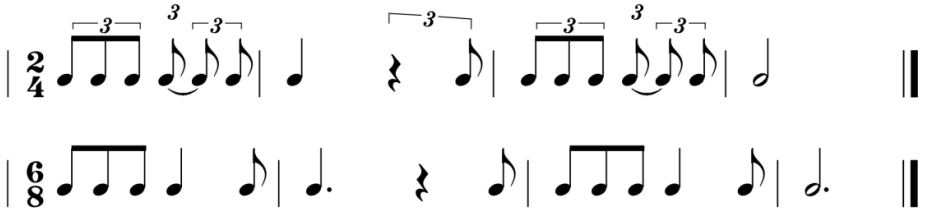
6/8 Timing Example with Tied Notes

Count evenly and clap on the notes!

Now if you look at the next example, you should see what I mean about **6/8** being a natural triplet timing. The two examples are the same, one written in **2/4** and one in **6/8**.

2/4 with Triplets vs. 6/8 Timing

Both examples are the same!



Clearly 6/8 is more correct!

*Ok, so why bother with triplets at all? Why not just use **6/8** timing instead?*

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In the case of an entire piece being in triplets you would do so, but this is not always the case, as in the **4/4** example above where part of a bar is in triplets followed by normal quavers which would not compute to **6/8** timing.

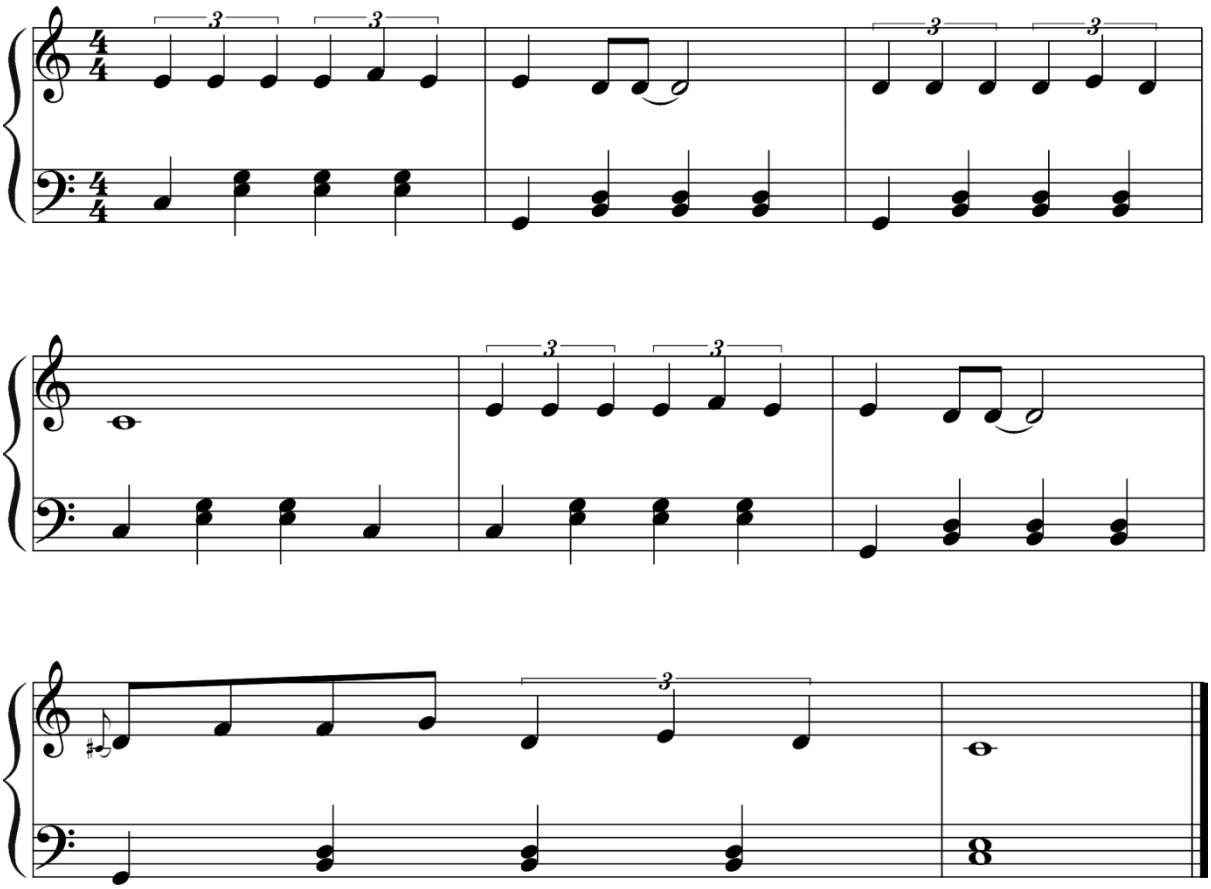
All sorts of music is written in **6/8** timing including many jigs, jazz, funk etc., and even ballads (when the tempo is slower).

Triplet Example

This example uses triplets in the right hand against straight quarter notes in the left hand, which at first can be tricky (like patting your head and rubbing your tummy at the same time), but it's a very important that you are able to do this. It also uses tied notes in bars 2 and 6 and a grace note in bar 7.

Why are you showing me this when you know I can't read music notation?

Because I want you to notice how the triplets in the right hand (upper staff) correspond with the straight quarter notes of the left hand (lower staff). It's only necessary for you to understand the timing element. Try tapping triplets with your right hand and straight fours with your left hand.



The web page link for this chapter is http://learn-keyboard.co.uk/timing_3.html .

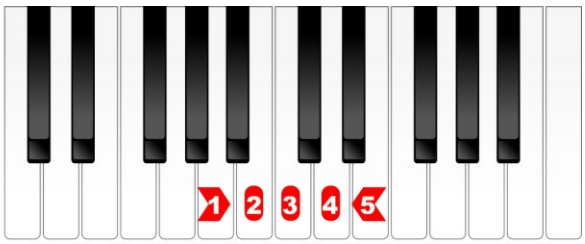
Creating Your Own Patterns

As well as learning the timing that's just been covered, hopefully you've been making progress with the 5 finger exercises in part 2.

What I want you to do now is an extension of these previous exercises, but using the right hand only.

Previously, I've given you the set patterns, fingering and timing. But now I want you to create some of your own using just the **C major** and **A minor** *5 note part scales* as shown below.

C Major



A Minor

For this, you can use exactly the same fingering as before (shown above) but now you can:

- choose which notes to hit in what order;
- choose the time length of each note;
- repeat any notes as required;
- use only some or all of the notes;
- start and finish anywhere you choose.

Due to the possible timing variations alone there are only about 500 billion possible combinations even with just with these five notes, so there's a fair bit to go at!

"Anyone who has never made a mistake has never tried anything new!"

Albert Einstein

Comment: - I still remember my first gig when we were booed off stage!

To begin with I recommend that you start and finish on the root note (**C** or **A** respectively).

Why?

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Because if using these notes as suggested, you will be in the key of **C major** or **A minor** and doing so will simply make it work better. As you gain a bit of experience, you can perhaps start on another note, but still end on the root. But having said this - do what the hell you like!

The following link buttons will give you a few audio examples.

Notice that each example has too phrases; the first sort asks a question and the second answers it - or resolves it! This technique is common in all sorts of music.

In all of the examples I've added the metronome as example 3 in particular starts off the beat!

Example 1 **Example 2** **Example 3**

Example 4 **Example 5**

Notice also the difference between doing this in the minor key as against the major key - examples 4 and 5 are in **A minor**. You may also find that you can figure out how to play some simple tunes that you know just with these five notes.

As we progress you will see all the major and minor scales in full as well as the penatonic and blues scales and arpeggios. Then this exercise can be repeated using a combination of all of them enabling you to improvise easily as well as compose and play just about every simple tune by ear! - *Wow!*

The link for this chapter is http://www.learn-keyboard.co.uk/own_patterns.html .

Casio Privia PX-350

If you're looking for a low priced portable keyboard with a great piano feel, great sounds, auto accompaniment and built in speakers - this is hard to beat!
In fact, for the price this is currently impossible to beat!

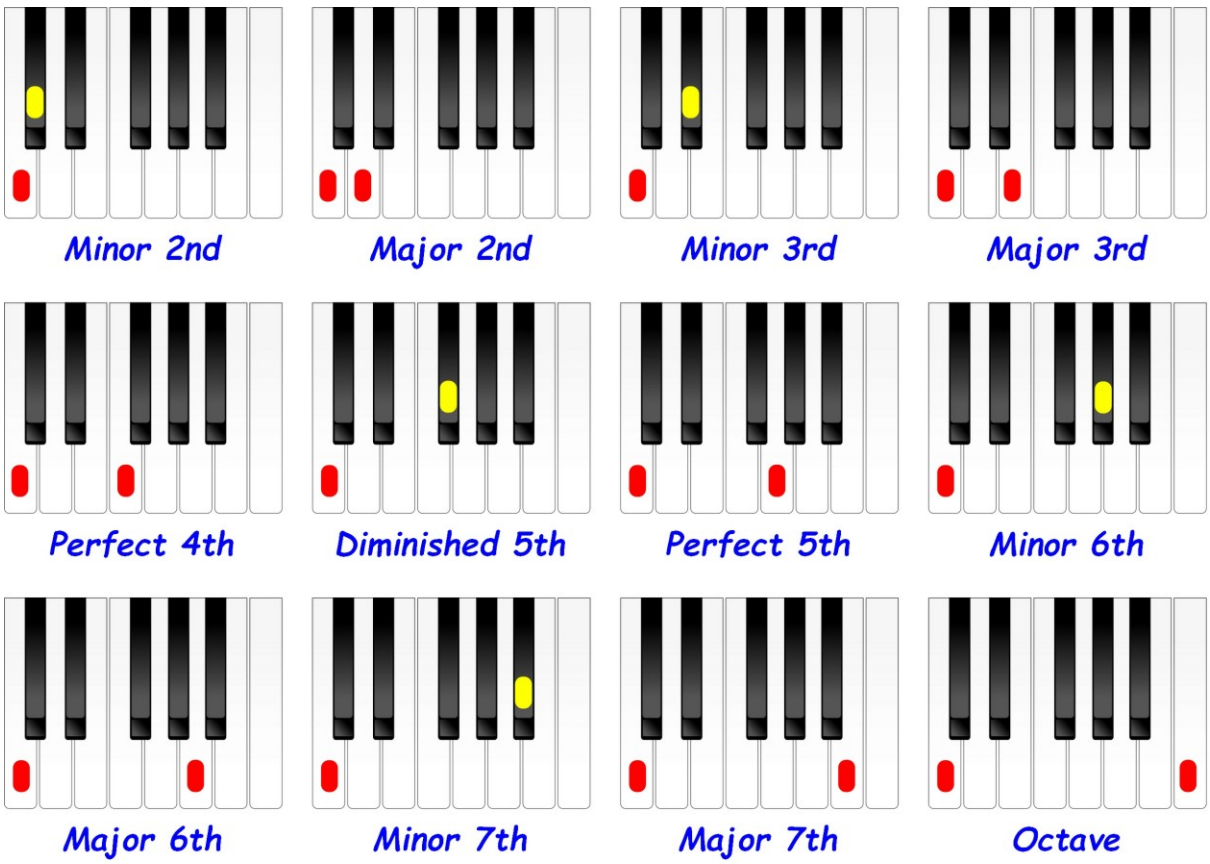
Intervals

We've already learnt that the smallest interval in Western music is the 'semi-tone' and this is the interval from **C - C sharp** (the first black note up from **C**) and going the other way from **C - B** (as there is no black note between **C** and **B**, but the *interval* is just the same). Playing a progression of semitones for one octave or more, starting on any note and returning to the same note is known as the 'chromatic' scale which you'll see later.

Two or more semi-tones create larger intervals. The interval between **C** and **D** is a tone (two semitones) as there is a black note in-between. The interval between **F sharp** and **G sharp** is also a tone, as there is a white note in-between. And the interval between **E** and **F sharp** is also a tone as in this case there is a white note in-between.

Then as more gaps are left in-between the *intervals* become greater and are named as shown below. All the intervals up to an octave are shown here starting on **C**. Continuing beyond the octave the 2nd plus an octave is known as a 9th, the 4th an 11th and the 6th a 13th. Interestingly every interval can be found more than once in every major and minor scale.

Intervals from C



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Note that the Minor 6th is also sometimes called an augmented 5th, and a diminished 5th could also be called an augmented 4th.

You are advised to learn how these intervals sound played one note at a time from high to low and vice versa and also how they sound played together. There is an audio link on the above graphic, but you should also play these yourself and really get to know them.

Notice how the same notes occur in the minor 3rd and the major 6th; the major 3rd and the minor 6th; the perfect 4th and perfect 5th; the minor 2nd and the major 7th etc.

Interval Chart

Minor 2nd	C - C# - D - Eb - E - F - F#	1 Semitone
	F# - G - Ab - A - Bb - B - C	
Major 2nd	C - D - E - F# - Ab - Bb - C	2 Semitones
	C# - Eb - F - G - A - B - C#	
Minor 3rd	C - Eb - F# - A - C	3 Semitones
	C# - E - G - Bb - C#	
	D - F - Ab - B - D	
Major 3rd	C - E - Ab - C	4 Semitones
	C# - F - A - C#	
	D - F# - Bb - D	
	Eb - G - B - Eb	
Perfect 4th	C - F - Bb - Eb - Ab - C# - F#	5 Semitones
	F# - B - E - A - D - G - C	
Diminished 5th	C - F# - C	6 Semitones (Tritone)
	C# - G - C#	
	D - Ab - D	
	Eb - A - Eb	
	E - Bb - E	
	F - B - F	
Perfect 5th	C - G - D - A - E - B - F#	7 Semitones
	F# - C# - Ab - Eb - Bb - F - C	
Minor 6th	C - Ab - E - C	8 Semitones
	C# - A - F - C#	
	D - Bb - F# - D	
	Eb - B - G - Eb	
Major 6th	C - A - F# - Eb - C	9 Semitones
	C# - Bb - G - E - C#	
	D - B - Ab - F - D	
Minor 7th	C - Bb - Ab - F# - E - D - C	10 Semitones
	C# - B - A - G - F - Eb - C#	
Major 7th	C - B - Bb - A - Ab - G - F#	11 Semitones
	F# - F - E - Eb - D - C# - C	

So why are intervals so important?

Because different intervals form different scales, and different chords etc., and understanding them is essential for composition as well as good theoretical understanding. They are also extremely useful in order to play by ear, which you'll see later.

The previous chart shows every interval within an octave, in all cases from the lowest note upwards. You may find it useful to print out both charts from this section.

For convenience I've used **C sharp** instead of **D flat** etc.

The link for this chapter is: http://learn-keyboard.co.uk/intervals.html .

Casio Privia PX-5S

If you fancy a fillet steak for the price of a beefburger, you'll love this little beastie! And before you ask, no it doesn't come with an altimeter or a compass, but it does have a superb piano sound and one of the best hammer action key beds out there; as well as other great sounds, an arpeggiator and recording features.
Don't be put off by the 'Casio' name, this keyboard is up with the best - and can be carried with one arm by a weakling, weighing in at just over 11kg.

I was so impressed that I bought one!

Roland KC110 Keyboard Amp

Add this amp to the above keyboard and you could be making a fortune busking outside your local tube station - as both work on batteries!

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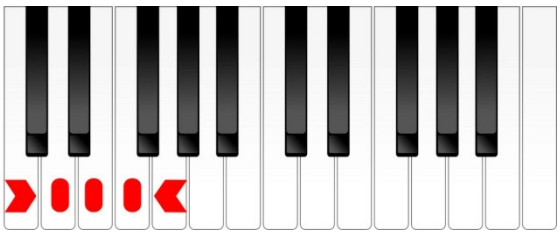
Keys, Key Signatures & Transposition

The word ‘key’ has two meanings in music, one being the physical ‘keys’ of the instrument and the other being the ‘key’ in relation to the ‘key signatures’ and which ‘key’ you are playing in.

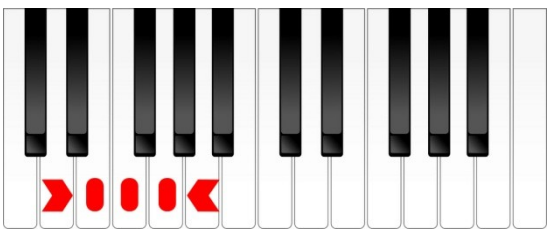
There are 12 major ‘keys’ in Western music (one for each black and white note), each of which has a relative minor. With the exception of **C major** (and **A minor**) each key has a ‘key signature’ which shows how many sharps or flats it has.

C major is the only major key without any sharps or flats and therefore has no key signature.

To hopefully explain this clearly we’re going to use a few diagrams showing a simple musical phrase as shown below. This phrase is in the key of **C major**.

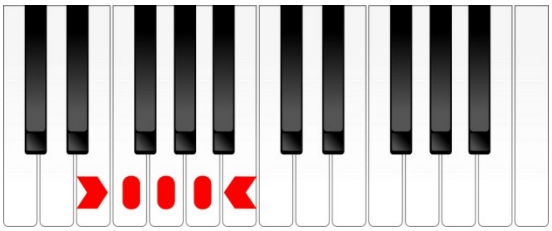


The intervals between each note in this phrase are **< 2 < 2 < 1 < 2 > 2 > 1 > 2 > 2** (each **‘1’** being a semitone and each **‘2’** being a tone). Now if we stay in **C major** and begin the phrase a tone higher by starting on **D** instead of **C** (as shown next) this would create a *diatonic* progression as against a transposition and the intervals will be: **< 2 < 1 < 2 < 2 > 2 > 2 > 1 > 2**. And the phrase would sound completely different due to the different intervals. Play these or use the audio links and hear the difference.



You may think that the second phrase is a **D minor** scale as we’ve been using this in the five finger exercises previously. And yes it is (partially), but it’s also a mode of the C major scale which you’ll see later when we deal with modes.

If we shove up another degree and start on **E** we'll get the next mode or *diatonic progression* which has different intervals again **< 1 < 2 < 2 < 2 > 2 > 2 > 2 > 1**.

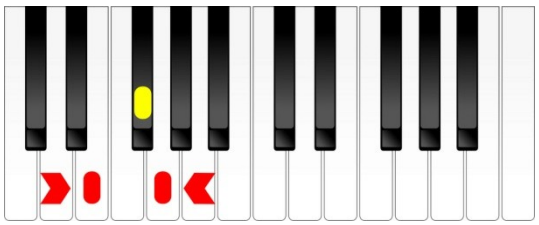


And of course because of the different intervals it sounds different again!

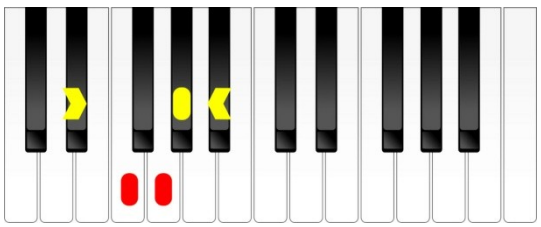
What does 'diatonic' mean?

Basically it means using the notes only found in the scale of the key that you're in (**C major** in this case). I'll explain more about this shortly when we talk about chords.

Now if we moved the phrase up a tone from the first phrase but also kept all of the intervals the same (as the first phrase), the phrase would sound the same but at a higher pitch and would be *transposed* one tone higher from the key of **C major** into **D major** which contains some sharps (**F#** in the phrase but also **C#** which you'll find out about shortly).



And if we moved this phrase up another semitone (again keeping all the intervals the same) it would be transposed into **E flat** major as shown below.



The reason for transposition is often due to a piece being more comfortable for a singer's particular range or the range of an instrument, and certainly some pieces are easier to play in certain keys, and some just sound better. It's also often used as an embellishment half way through a piece to give it a lift for the finale. An example of this can be heard in 'Beary Glen' on the front page of my site at http://learn-

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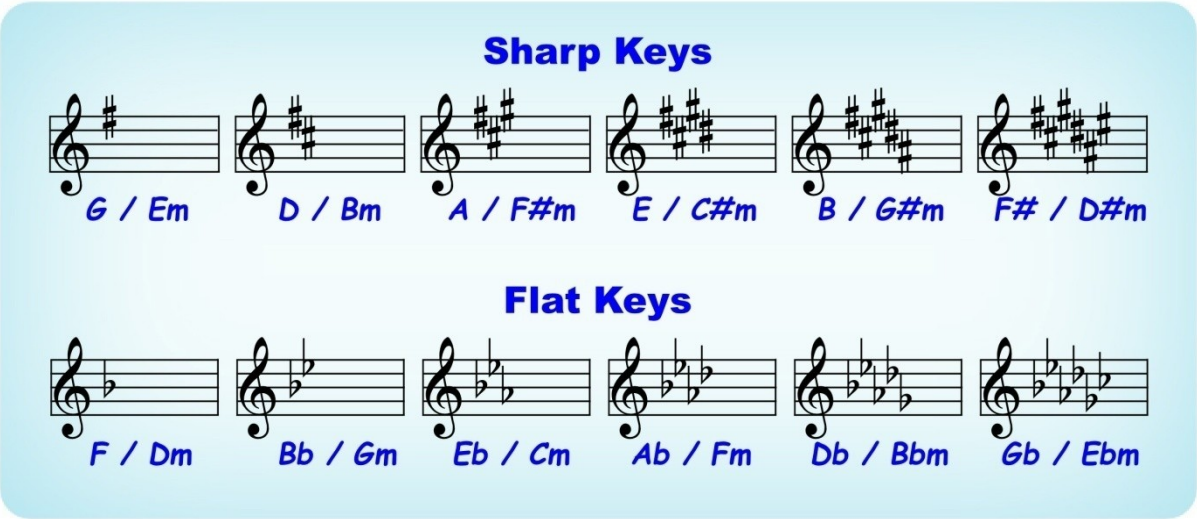
keyboard.co.uk . This piece starts in **G major** and transposes to **A major** halfway through.

All of the key signatures are shown in the following chart.



Note that **F sharp major** and **G flat major** (and the relative minors) are the same keys but simply written differently. **C major** and **A minor** are not included in the above chart as they are neither flat keys nor sharp keys.

Why do I need to know all this?

Because later I'm going to show you how to play from a fake book without reading music and you will need this information. Right now it doesn't matter *which* sharps or flats are in which key signature; you just need to know for instance that if there's four sharps in the key signature then you'll be in the key of **E major** or **C# minor** etc., and the above chart shows this. As we cover all the scales it will become self evident *which* sharps and flats are included in which key.

I recommend that you learn all the scales in order of how many sharps and flats that they have, which is the order in which they are taught in classical music schools. If you find the thought of this too daunting, don't continue further than you feel comfortable.

Curiously the French word for 'key' is 'clef'. Whether this has any significance I don't know - probably not!

"That's all drugs and alcohol do, they cut off your emotions in the end!"

Ringo Starr

Comment: - Wise words from Ringo!

minor 3rds and tones.

End of Preview

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