Learn How to Play Electronic

KEYBOARD OR PIANO

In a week!

Martin Woodward
Acknowledgements

To all the fantastic musicians who I’ve had the privilege of working with back in the 1960s / 70s including: Pip Williams (guitarist / record producer); Tex Marsh (drummer); Roger Flavell (bassist); Kevan Fogarty (guitarist); Ralph Denyer (singer / songwriter); Phil Childs (bassist); Jim Smith (drums); George Lee (saxophonist); Ron Thomas (bassist); Emile Ford (UK No. 1 singer / songwriter).

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Ok, first let me make it clear that by ‘learn in a week’ I’m not suggesting that you’re going to be a virtuoso at the end of this period - especially if you an absolute beginner - it’s simply not realistic! However, I assure you that the methods included herein will show you the fastest and easiest way to learn finger dexterity and genuine music notation. And furthermore, are geared towards all styles of music and applicable to both piano and electronic keyboard.

The key points to learning quickly and effectively are as follows:

- The right type of regular practice, spaced according to your ability;
- A high level of motivation;
- Being assured that it has nothing to do with age, talent or being gifted even to a professional level.

Let’s look at the above in a little more detail.

**The Right Practice**

To be effective your practice should be short (initially) but regular. Three 20-minute sessions a day is ideal to begin with, which could be and should be extended as you gain more ability and finger strength. Having no practice for several days and then trying to make up for what you’ve missed by having a blitz, simply won’t work, in fact this would more likely be a backward step. If you can’t manage three sessions, then one 20 / 30-minute session per day is the absolute minimum to begin with, any less and you’d be basically wasting your time.

With the right practice, good progress will occur but it’s normal for this to be in fits and jerks - good days and bad days - so don’t get disappointed when it appears to be going wrong. In order to experience the peaks, you must also have the troughs! Keep doing it *every day* and it will happen!

Included herein are some superb 5 finger exercises, plus all the scales and arpeggios that you need to know. In order to be successful these *must* be practiced, but they can be fun as shown later.

**Motivation**

There’s absolutely no doubt about it that your willingness to practice regularly is in a direct ratio to your degree of motivation. Clearly if you’re not motivated you’ll not bother. If you look at all really successful players, the one thing that they have in common is a high level of motivation - the greater the motivation - the greater the success! Jazz pianist Jamie Cullum has a keyboard in every room of his house - even
the kitchen - so that he can ‘have a twiddle’ any time he feels like it - even when he’s boiling his eggs!

Before I turned professional I practiced about 4 hours a day every day. Having said this, you can attain a reasonable skill and have much fulfilment with as little as 20 / 30 minutes practice a day. The choice is yours - you’re in charge of your life - as long as your wife approves!

**Talent / Gift**

Successful keyboard playing has nothing to do with age, talent or being gifted. Most of the so called ‘talented / gifted’ musicians were simply born into the right environment where they were encouraged and taught from a very early age. So sure, maybe they were privileged - but not gifted. And this is the same with everything from being a ‘gifted’ artist to a ‘gifted’ motor mechanic! - Think about it! Do you think Mozart would have achieved what he did if his parents were Eskimos?

And look at Michael Jackson, perhaps you think he was born talented, yet it’s widely known that he was *groomed* virtually from birth to be what he turned into at the expense of any form of normal childhood. And clearly this is the fate of many child ‘prodigies’ - they’re simply *forced* to accomplish what their parents couldn’t!

Anyone who is motivated and practices as instructed can be a superb player in a direct proportion to the amount of effort put in. But don’t get hung up on wanting to be ‘better’ than someone else. Music is not a competition, it’s *creative*. Just compete with *yourself* and you will achieve the greatest fulfilment.

**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](http://learn-keyboard.co.uk/keyboard_links.html) - there’s another link to whiz straight back! 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 at: [http://learn-keyboard.co.uk/keyboard_links.html](http://learn-keyboard.co.uk/keyboard_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_in_a_week.html](http://learn-keyboard.co.uk/learn_in_a_week.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 green right-hand one will take you instantly to the next chapter and the red left-hand arrow to the beginning of the last chapter. There are also links to and from the coinciding chapters in Parts 1 & 2.
Choosing Your First Keyboard

If you haven’t already bought a keyboard or if you are perhaps thinking of changing, you may find the following information useful.

Firstly, just in case you’re wondering, there is no such thing as a ‘left handed’ keyboard and if you ever come across one, it will have been created by an idiot just for a laugh! It makes no difference whether you are right or left handed for playing the keyboard as both are equally important (more or less). On all keyboards of every type, the high-pitched notes are to the right and generally played with the right hand and the low notes are to the left and generally played with the left hand.

There are many different types of keyboards - all have black and white keys and to the uninitiated all look the same. But they can be vastly different and which one will be right for you will be determined by:

- Your present needs;
- Available space;
- Your ultimate needs; and of course
- Your budget.

Prices can vary from as little as £50 to many thousands of pounds. The chances of buying one that is absolutely right for your initial and ultimate needs is about nil, but you can at least try!

Keyboards basically fall into the following categories:

a) Synthesizers (hi tech);
b) Workstations (hi tech);
c) Electronic digital pianos (hi tech / low tech);
d) Arranger keyboards (hi tech / low tech);
e) Organs (hi tech / low tech);
f) Controller keyboards with modules (hi tech);
g) A mixed combination of any of the above;
h) Acoustic pianos (low tech).

And of course, all of the above could be purchased either new or second-hand.

Now, you may have noticed that I’ve put in brackets ‘hi tech’ - ‘low tech’ or both. This is because there are two types of retail music shops - hi tech and low tech and it’s
very rare that you’ll find the two combined in one shop. And by ‘low tech’, please don’t think that I mean cheap or low quality or low price - quite the contrary - it’s just a different market.

The typical low-tech shops are aimed at the home users and will sell:

- Pianos (acoustic and electronic);
- Organs for home use (low tech);
- Arranger keyboards (low tech);
- Sheet music;
- Possibly a small selection of guitars etc.

The typical hi-tech shops are primarily aimed at professional working musicians and will sell:

- Portable electronic stage pianos;
- Synths and workstations;
- Modules and controller keyboards;
- Hi tech (and expensive) arranger keyboards;
- Guitars (large selection);
- Amplifiers;
- Drum kits etc.

Ok, so let’s look at what all these keyboards do.

**Synths and Workstations**

As both of these are hi tech and primarily used for music production / recording, I’m going to write these off as being unsuitable for your needs right now. After having gained some experience at playing perhaps one of these may suit your needs later - but these are not a good choice for a beginner, unless they also include the functions that you will need, which actually more and more now do - just to confuse things!

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**Nord Stage 3 Synth / Piano / Organ (73 keys) - very Hi Tech**
Electronic Pianos

These are available as either low tech home pianos in glossy cabinets (and usually very expensive) to hi tech portable stage pianos and everything in between.

Most electronic pianos have graduated hammer action keys which simulate the feel and action of a real acoustic piano - this can be good or bad depending on your preferences. Most also have a full 88 key (7 octave plus) keyboard.

The low-tech home pianos tend to have their own amplification and speakers built in, whereas hi tech stage pianos tend not to. All can be used with headphones.

Now, **most importantly** some in both categories have ‘auto accompaniment’ features (which we’ll deal with later) whereas some will be just simply pianos - now doubt with other sounds as well.

If it is your intention to play classical or jazz seriously, I would suggest that an electronic digital piano with a good hammer action keybed could be a good choice for you. But if you are an absolute beginner then consider one that also has auto accompaniment which in **no way** prevents the instrument from being used as a normal complete piano. A few years ago, I had a Korg SP500 which I used with and without the auto accompaniment for home and professional use. Now I have the Casio PX-560 (below) which is also an arranger / workstation and synth.

Casio, Korg, Roland, Yamaha, Nord, Kawai and Kurzweil all do a good range of hi-tech / low-tech portables, some with and some without auto accompaniment, and some with or without internal amplification. All have their strong and weak points, but all are worth considering.
Acoustic Pianos

I would never discourage anyone from getting one of these if this is what they want, but the clear disadvantages are:

- They need periodic tuning;
- They are space greedy;
- They can be very expensive;
- They’re not suitable for gigging;
- You will drive your family and neighbours nuts when you practice as these of course don’t work too good with headphones.

On the plus side, when the world eventually runs out of electricity, everyone will want one!

But unless you are an absolute ‘purist’, you could never tell the difference between an acoustic and a good quality digital piano unless you pulled the plug out!

Organs

Again, these come in both hi and low tech, and both tend to be very expensive. The low-tech varieties tend to come with auto accompaniment as well as just about every gadget imaginable. I’ve personally only used hi tech (no gadget) instruments including the early Vox Continental, the Hammond M102 and Hammond B3 all of which I used for gigging around Europe. I still love these instruments (especially the B3), but the downside with these is that they take up a huge amount of space and the B3’s require four people to move them - no fun when working basement or attic venues! Although the sounds of these instruments can never be simulated exactly, some of the modern lightweight keyboards get pretty close.

Arranger Keyboards

In my opinion, this is probably the best choice for anyone who just wants to have fun but also retain the option for getting serious and possibly professional. But the variation in quality, features and prices is vast.

Whereas most electronic pianos come with 88 weighted keys, the arranger keyboards tend to come with either 61 keys (5 octaves) or 76 keys (6 octaves +) and the keys may be un-weighted, semi weighted or occasionally fully weighted.

In addition:

- All have auto accompaniment, but quality and features vary considerably;
- Some have built in speakers / amplification;
- Some have built in sequencers;
- Some have built in samplers.
Casio MZ-X500 Arranger Keyboard (61 notes)

Pricewise, the Casios are excellent value and impossible to beat, but mainly at the top end of their range.

Personally, I wouldn’t consider less than 6 octaves which then enables the instrument to be played as a standard piano as an alternative to splitting the keyboard and using the auto accompaniment features. But having said this, the 5 octave Casio MZ-X500 is totally stunning and sells at far less than half the price of anything comparable. This I would consider as a top level to a full-length board - this works well with the PX-5S or the PX-560.

Casio WK 7600 Arranger with internal Amp & Speakers

Arranger keyboards that I’ve personally owned (all 6 octaves+) include:

- Early Yamaha PSR1;
- Technics (can’t remember which);
- Korg i2;
- Roland G70;
- Korg PA-2X;
- Korg SP-500 (fully weighted);
- Casio Privia PX-560 which also has a fully weighted keybed and a synth.

The majority of the above do not have internal speakers / amplification which is the norm for professional equipment. In this event you would also need to purchase an external keyboard amplifier and speaker(s), which needn’t have to be an expensive item.
**Modules / Controller Keyboards**

There are basically two types of modules:

- Sound modules; and
- Backing modules - with sounds.

Sound modules can be connected via midi to enhance the sounds of any midi compatible keyboard or controller. Roland do a good range of these with stunning sounds but they can be expensive.

Backing modules enable any midi keyboard to be used with auto accompaniment. These are ideal for accordionists or any keyboard without on-board auto accompaniment features.

Currently the only backing modules on the market are the Roland BK-7m and a few made by Ketron and Orla. In the past Yamaha have made them and also Korg (the i40m), but these are now only available second-hand - if you can find one.

**Roland BK-7m Backing Module**

Controller keyboards are generally low priced and light in weight (as they don’t actually do anything on their own) and are available with 61, 76 or 88 keys with un-weighted, semi weighted or fully weighted key options. When connected to a sound module they can potentially do and become anything from a superb piano to the best synths etc. But of course, the sounds produced would be no better than the modules used.

Another possible use for a controller would be if you have a good 61 key un-weighted keyboard like a Yamaha Tyros and want the option of a longer or weighted keyboard. In this instance, you would also need a double stand. In fact, a tailor-made stand is available for this specific purpose. You could then have a good arranger keyboard, a fully weighted piano and a two-manual organ all in one, and if you’re into organs, you could even add a pedal board.

Probably initially you wouldn’t want to go down the controller keyboard route, but it’s certainly worth knowing about for future reference.
Auto Accompaniment

All arranger keyboards and some pianos / organs have the facility to either use the instrument as a full keyboard (in piano mode) or to split the keyboard at a chosen point and use the upper half for the right-hand melody work and the lower portion with an alternative sound / instrument for bass etc., or auto accompaniment. But note that you’d be struggling in full piano mode with less than 73 keys.

In the auto accompaniment mode, a particular rhythm and style can be selected which will play bass, drums and other instrumentation as soon as a chord is played in the lower portion of the keyboard. As the chord is changed, the instrumentation will follow automatically. In most cases, intros, endings and fill-ins can also be activated at the touch of a button.

This results in the player being in control of a complete multi instrument band / orchestra. Clearly using this option enables even a novice to produce professional sounding work easily. And as a result, many would call this ‘cheating’! Well I suppose if you set the instrument up to do the lot, go off and make a cup of tea and return to take your applause, I suppose it is. My view on this is that if it gives pleasure - so bloody what!

BUT, I would strongly recommend that you learn to play both with and without the auto accompaniment then you will get the best of both worlds. And the exercises and information herein teaches exactly this - for your greatest fulfilment.

Some of what I do personally involves using the auto accompaniment which effectively enables me to play with a band without having the commitment of being involved with a band. Plus, it enables me to gig solo should I wish to and of course to earn more money. But I mainly, enjoy playing in normal piano mode without the auto accompaniment.

Note that if you are playing with a band, auto accompaniment would never be used.

Sequencers

Most arranger keyboards, synths, workstations and some pianos have one or more built in sequencer(s). This enables you to record, edit and playback chord sequences, styles, fills and variations or even complete songs easily (once you’ve got your head round it).

Another option is to use an external sequencer via your PC, which actually allows far more control, editing and mixing possibilities. But I have to say that these can be complicated. I currently have Cakewalk Sonar X3 and Cubase, both of which are straining my brain somewhat - probably an age thing!

But if you just want to record simple one-track audio files, this can be achieved very easily by using the free Audacity program. There is a link for this at the end of the book.
**Harmonisers**

If you are into singing along with your playing, some high-end arranger keyboards have built in ‘harmonisers’ which creates a harmony to your singing and some can even help correct your crap singing.

This feature is on the Roland G70 as well as the Korg PA series and many others. I can’t say that it’s a feature that I’ve ever used myself, but it’s interesting nonetheless.

**Polyphony**

When considering various keyboards, you will come across the words ‘polyphonic’ and ‘monophonic’.

A *monophonic* keyboard will only allow you to play one note at a time as in the very early synths - if you play two notes together only one will sound. A keyboard which is say polyphonic to 32 notes will allow 32 notes to be played / sounded at once.

As you *probably* only have ten fingers you may think that this is fine, but when you consider that using the sustain pedal and / or auto accompaniment can increase the need for *polyphony*, 32 notes soon becomes inadequate, so the larger the *polyphony* the better!

Most quality, keyboards have a 128-note polyphony or more, The Casio PX5S, 560 and others have an incredible 256-note polyphony.

**Advantages / Disadvantages of Internal Amplification**

Most of the lower priced portable keyboards and most home pianos have internal speakers / amplification. If you intend using the instrument for home use only; then this can be ideal. The only possible disadvantage of this is that it makes the instrument physically heavier than it might have been without them, but if you don’t intend moving it around too much then this should not cause a problem.
The more expensive portable keyboards tend not to have internal amplification. You may think this odd as it appears that you are paying more and getting less. But as these instruments are primarily produced for the professional (gigging) musician, keeping the weight down to the minimum is useful. and This also leaves the way clear to purchase the right amplification for the musician’s individual needs which could vary considerably, governed by the type and size of venues.

If using one of these instruments for home use there are many suitable small amps on the market. In this instance, I would advise purchasing dedicated keyboard equipment or powered speakers both of which should be fine.

**Buying Second-hand**

Like just about anything, if you buy second-hand you will save a huge amount on the new purchase price and lose a great deal less when you come to sell - which is inevitable!

Over the years I’ve bought several new instruments, but to be honest have lost money on all of them whereas many of the second-hand instruments I’ve bought, I’ve used for a few years and often sold for a profit - something I’ve never got anywhere near doing with a car! And as against cars, musical instruments tend to be very reliable. In fact, I have to say that since 1966 when I bought my Vox Continental organ, I have never had an instrument fail on me - I’m hanging onto a tree as I’m writing this! The only parts that I’ve ever needed were a few keys that got physically broken on my Hammonds due to a slightly ‘over enthusiastic’ playing technique and some valves which were consumables on the Hammonds. But in those days, I always kept a supply of what I knew I was going to destroy.

Common sense dictates that you should use caution if buying on eBay etc., although I have bought this way successfully numerous times. But my advice would be to always view before bidding and check out the seller’s ratings in detail. When selling, personally I would never sell on eBay due to their crazy fees, Gumtree and Preloved have always worked well for me - and they’re free!

Finally, if you’re not sure what to buy, buy low priced second-hand (preferably 6 octaves or more). But always check discounted new prices first, and then at least you will minimise your losses if you get it wrong which you probably will! Some of the older top name keyboards incidentally are excellent.

At the time of editing this revised edition the most suitable keyboard to hit the second-hand market is the Casio Privia PX 350 which has a full 88 key hammer action keybed, superb piano sounds and auto-accompaniment, and possibly available for as low as £350 - £400.

Other items that you will need include:

- A stool (preferably height adjustable);
- A stand strong enough to accommodate the keyboard;
• A good quality sustain pedal (preferably with a reverse polarity switch);
• A music stand (included with most keyboards);
• A dust cover for the keyboard;
• Amplification and leads if not included;
• Headphones if you want your family to retain their sanity.

Throughout the book I have included a few of my favourite keyboards, please be assured that these are not ‘adverts’ as such. 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. But if you really want the Hammond sound, buy a Hammond!

“Music is the mediator between the spiritual and the sensual life.”
Beethoven
Your First Exercises

Now before I start explaining the basic rudiments of music theory, these first few exercises can be practiced effectively even without an instrument, so don’t worry if you haven’t got one yet, these exercises will still be beneficial.

But assuming you have got a keyboard, you need to get yourself correctly prepared as follows.

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.

Your stool should be positioned so that you are seated more or less in the centre of the keyboard - belly button opposite middle C, with your back fairly straight but relaxed.

The next pictures illustrate the correct and incorrect hand positions.
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).

Here We Go

What I’m going to get you to do now will drive your partner, kids, parents, friends and probably even your cat nuts - so be prepared! You are going to become a ‘perpetual tapper’! These exercises can be done anywhere, anytime on virtually anything from a table to a steering wheel to your head or even your girlfriend’s / boyfriend’s leg! But I absolutely guarantee that they will increase your finger strength, independence and flexibility quicker than any other method. Obviously, whenever you can, use a keyboard. But because you can do these anywhere, I will call these the ‘tapping’ exercises.

To prepare for your first exercise, proceed as follows:

1. If using a piano or keyboard, adjust your seating position as described previously;
2. Rest the fingers of your right hand (you can do the same with your left hand later) on the keyboard (or surface) in a claw like position with your first finger (thumb) on the white key to the left of two black keys more or less in the middle of the keyboard - middle C;
3. Keeping your hand / fingers in this position raise your hand only very slightly so that it’s no longer touching the keyboard (or surface). If this is uncomfortable, adjust your seating position;
4. Now begin counting either out loud or in your head: 1 & 2 & 3 & 4 & 1 & 2 & 3 & 4 & etc.;
5. With each count (but not the ‘ands’) tap your left foot and try and keep a steady rhythm. Now you’re ready for exercise 1, but pay attention to the hand / finger position at all times.

**Exercise 1**

With each tap of your foot, press the keys (or tap the surface) with each finger of your right hand one at a time in a piston type fashion starting and finishing with your thumb as shown in the right-hand diagram below. Speed is of no importance but rhythm is. Take it as slow as you like but keep in time. It’s likely that you have started counting far faster than you are able to do this, so simply slow down the tempo.

When using the left hand, start with the 5th finger, again on a key to the left of two black keys, but the next one down from the one used with the right hand and follow the pattern as in the left-hand diagram above.

Practice this exercise with both hands separately doing each one seven times making the last beat of each segment the first of the next. You will see the significance of ‘seven’ later. Gradually increase the speed according to your ability, but remember speed is not important, but accuracy and rhythm is.

---

**And this is what you’ve played!**
I don’t want you to worry about this right now, but in music notation if you play just one segment of the above, you would in fact be playing 9 crotchets, the last of which being the first of the continuum as shown above in music notation for the right hand.

Now as you get a little more proficient, you could double the speed by tapping / playing the notes on the ‘and’ beats as well - this would be 9 quavers.

![Music notation for 9 crotchets](image)

Double it again and it’s 9 semi quavers, which is what you should eventually aim for, but you can always alter the tempo to suit yourself.

![Music notation for 9 semi quavers](image)

Each of the exercises has a ‘mirror’ version thus enabling every finger in both hands to benefit equally. The mirror version for this first exercise is as follows with the right hand starting with the 5th finger and the left hand starting with the 1st.

![Mirror version of exercise](image)

Try these exercises two different ways:

a) Tapping and releasing each finger fairly abruptly - this is known as ‘staccato’; and

b) Holding each finger down until the next one comes into play - this is known as ‘legato’;

c) Practice with both hands individually and then both hands together.

I’ll explain the music notation in detail later, but for the time being just try and get your fingers working which right now is most important and will be for quite some time.

So, when you’re ready, move onto the next four exercises which will get your fingers moving in a different order.
Exercise 2

\[5 \ 1 \ 2 \ 1 \ 3 \ 2 \ 4 \ 3 \ (5)\]
Left Hand \(\times 7\)

\[1 \ 5 \ 4 \ 5 \ 3 \ 4 \ 2 \ 3 \ (1)\]
Right Hand \(\times 7\)

Mirror Version Below

\[1 \ 5 \ 4 \ 5 \ 3 \ 4 \ 2 \ 3 \ (1)\]
Left Hand \(\times 7\)

\[5 \ 1 \ 2 \ 1 \ 3 \ 2 \ 4 \ 3 \ (5)\]
Right Hand \(\times 7\)

Right hand Music Notation for Normal and mirror version below

Exercise 3

\[5 \ 1 \ 2 \ 1 \ 3 \ 1 \ 4 \ 1 (5)\]
Left Hand \(\times 7\)

\[1 \ 5 \ 4 \ 5 \ 3 \ 5 \ 2 \ 5 \ (1)\]
Right Hand \(\times 7\)

Mirror Version Below

\[1 \ 5 \ 4 \ 5 \ 3 \ 5 \ 2 \ 5 \ (1)\]
Left Hand \(\times 7\)

\[5 \ 1 \ 2 \ 1 \ 3 \ 1 \ 4 \ 1 (5)\]
Right Hand \(\times 7\)

Right hand Music Notation for Normal and mirror version below
Exercise 4

**Left Hand x 7**

5 4 3 4 2 3 1 2 (5)

1 2 3 2 4 3 5 4 (1)

**Right Hand x 7**

Mirror Version Below

1 2 3 2 4 3 5 4 (1)

5 4 3 4 2 3 1 2 (5)

Right hand Music Notation for Normal and mirror version below

Exercise 5

**Left Hand x 7**

5 3 4 2 3 1 2 4 (5)

1 3 2 4 3 5 4 2 (1)

**Right Hand x 7**

Mirror Version Below

1 3 2 4 3 5 4 2 (1)

5 3 4 2 3 1 2 4 (5)

Right hand Music Notation for Normal and mirror version below
Right now, you may understand the above fingering charts better than the music notation, but you must admit that it’s getting a bit confusing and remember we are only dealing with five white notes here. But hopefully this has got you tapping and exercising your fingers in order to gain some initial dexterity and flexibility required to progress further.

I appreciate that if you’ve never done this before, these initial exercises are difficult, particularly between the 4th and 5th fingers, but believe me they work - there are no better!

Later I’ll show you more, but remember do them slowly and keep in time.

Even though their greatest importance is to give the initial flexibility and strength to each finger, even when you progress to learn all the scales and arpeggios shown later, never dismiss the importance of the 5 finger exercises. I still do them now after 60 years of playing.

Please continue with these exercises while you are reading the following chapters, I guarantee that you will see the benefits in a very short while. But don’t strain your finger muscles too much - do a bit - rest a bit!

The audio link for the tapping exercises is: [http://learn-keyboard.co.uk/tapping.html](http://learn-keyboard.co.uk/tapping.html) or click on the notation graphics.

---

**Alto Truesonic TS 110a Powered Speaker**

A great alternative to a dedicated keyboard combo amp is powered speakers like these. Although used primarily for PA, these are great for keyboards and can be used singly or in pairs (for stereo).

These are ideal for home studio and small - average sized gigs.

I have used these!
The Notes of the Keyboard

Now we’ll look at the notes of the keyboard and how to identify them.

As already stated, 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 - octopus - 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?

That’s a good question and the answer is that it could be either, but I will explain more shortly.

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.
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:

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

What about the black ones, what are they called?

Don’t worry I’ve not forgotten them, we’ll be dealing with them shortly, but first we’ll look at how the keys of the keyboard relate to music notation.
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 as 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’ which is four 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 clearly, learning conventional music notation has to be to every musician’s advantage.

In order to extend the vertical axis (in conventional notation) and potentially accommodate more notes, this is split into ‘clefs’. The two clefs used in piano music are the ‘treble’ and ‘bass’ clefs as shown next and these form the ‘grand staff’ (or stave).

![The Treble & Bass Clefs](image)

Saying: “the two clefs used in Piano music” implies that there are other clefs.

Yes, there are several other clefs used by other instruments and singers, the most common being the ‘alto’ and ‘tenor’ clefs, but from the piano / keyboard point of view, you can completely put them out of mind, just simply know that they exist and forget about them!

---

![Yamaha CVP 709GP](image)

This has to be my dream machine if money and space were no object!
The Grand Staff

The ‘Grand staff’ is made up of two ‘staves’ or ‘staffs’ of five lines each, the top one being the ‘treble clef’ which is mainly used for the higher notes by the right hand and the ‘bass clef’ mainly used for the lower notes by the left hand.

What’s the difference between a staff and a stave?

Actually, no-one seems to know for sure, but a staff is a stave - it’s just a word, well two words actually, so don’t worry about it!

The important thing that you need to learn is that the ‘staves’ or ‘staffs’ are split into the two ‘clefs’ (for piano music) - these are what you need to learn and remember.

An easy way to remember the notes of each clef is to think of them in sections like:

- Treble clef space notes F A C E - the word FACE!
- Treble clef line notes E G B D F - Every Good Boy Deserves Favours!
- Bass clef space notes A C E G - All Cows Eat Grass!
- Bass clef line notes G B D F A - Giant Bears Don’t Fly Aeroplanes!

So, which one is ‘middle C’?

Well actually ‘middle C’ is not in the above illustration, because it falls below the lines of the treble clef and above the lines of the bass clef. In fact, it’s exactly midway between both clefs.

The next illustration will show you where it is! Although it is shown in both the treble and bass clefs it is the same note.
If we bring the two clefs closer together, you will see that there is an imaginary line exactly midway between the two clefs and this is where ‘middle C’ lives.

And this is why ‘middle C’ has a line drawn through the middle of it. This is called a ledger line and happens with some other notes as well, in fact any time a note goes above or below the clef staff lines.

Now the notes both sides of middle C (B and D) also fall either above or below the clef staff lines which can be seen next.

“I have never thought of writing for reputation and honour. What I have in my heart must come out; that is the reason why I compose.”

Beethoven

Comment: Wisdom from the greatest!
Now there are also notes that fall both above the treble clef and below the bass clef and these in fact would be the top four and the bottom four white notes of a four-octave spread.

Wow this is getting heavy; I don’t think I’ll ever understand all this!

Please don’t distress yourself, we will be dealing with everything one step at a time and it will all become clear as you progress. But you may occasionally need to review various sections to gain a complete understanding. - Just read on!

“I started out with nothing and I’ve still got most of it left!”

Seasick Steve

Comment: Rock on Steve, we all love you!
How the Notes Relate to the Keyboard

Now we’ll look at how the musical notes relate to the keyboard.

This next diagram may at first look a little confusing and difficult to read; and if you are reading this on a tablet, it may not be clear. If you haven’t already done so, please go to the rear of the book to get the pdf download link and you will be able to see this much more clearly, even more so by zooming in, in landscape view!

To make this easier to see, below I have split the keyboard into two 2 octave sections, one for each clef, but remember that we have put a star on *Middle C* so that you can always find it!

So, notice that the next two diagrams are actually the same as the above diagram split into two.

It may be useful for you to print out these three diagrams and look at them in detail.
Ok so this shows a four-octave spread, but what happens when the notes are higher or lower than these as on larger keyboards?

Good question! And the answer is that up to a certain point more ledger lines are added, but when there are too many they become impossible to read quickly, so instead the music is written an octave (or more) lower or higher to keep within the clefs and then the 8va, 8vb, 15ma or 15mb symbols are used.

As an example, the following two phrases are exactly the same, but on the second one the 8va symbol is used indicating that the notes should be played an octave higher than written.

• 8va = play the bracketed notes one octave higher;
• 8vb = play the bracketed notes one octave lower;
• 15ma = play the bracketed notes two octaves higher;
• 15mb = play the bracketed notes two octaves lower.

To be honest it will probably be a while before you’ll need these.

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

BB King - (King of the Blues)
**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.

![Sharps & Flats Diagram](image)

Lowering a note flattens it! - Raising a note sharpens it!

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 semitones). But these only occur occasionally in keys heavily endowed in sharps or flats. There are actually only two in this book - in the **G# minor** scales and the **Db7b5** chord in the chord substitution section. It may be years before you come across any more.

![Sharp / Flat Symbols](image)
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).

When they are accidentals, they are simply added to the music as and where they occur as shown below.

In this case any repeats of notes that are ‘sharpened’ or ‘flattened’ this way remains so for the duration of the bar unless ‘naturalised’ using the ‘natural’ symbol.

If you look carefully at the last diagrams you will see that both examples are identical. The first one uses F sharp and the second uses G flat (same notes) to produce the same result.

*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.

But first we’ll deal with the timing.

---

**Casio Privia PX-560 Piano / Arranger**

*This little beast takes some beating - especially for the price. This has incredible piano sounds, as well as one of the best keyboard feels out there. It also has other great sounds (all programmable), auto accompaniment and recording features!*

*I have one of these!*
This section deals with time signatures; note values and rests etc. If you are familiar with these, please move onto the next section.

**Time Signatures and Bars**

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 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 more - 5/4, 7/4, 9/8, 11/8 etc., but we don’t need any of these for our purpose right now and by the time you come to need them you will understand them perfectly.

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.
**Note Values**

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

- The ‘semi-breve’ 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.

There are longer and shorter notes (and the corresponding rests), but these will do for now.
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’.
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.

Groups of a dotted quaver followed by a semi quaver are very common in pop and swing music. A bar of 4 of these followed by a minim (in the next bar) sounds like: Da D, Da D, Da D, Da D, DAH. However sometimes these are written as straight quavers but with a note that they should be played in ‘swing feel’.

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.

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.

**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](image)

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.

**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](image)

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.

We have used 4/4 timing in all of the examples so far, which should have given you a pretty good idea of how it all works. As we progress, you will see examples of other time signatures.
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:

<table>
<thead>
<tr>
<th>Italian</th>
<th>Translations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerando</td>
<td>Increase speed</td>
</tr>
<tr>
<td>Rallentando</td>
<td>Slow down</td>
</tr>
<tr>
<td>Ritardando</td>
<td>Slow down</td>
</tr>
<tr>
<td>a tempo</td>
<td>Resume original tempo</td>
</tr>
</tbody>
</table>

There is much more that I could say about timing, but enough has been said for our purposes here.

The audio link for this section is: [http://learn-keyboard.co.uk/timing.html](http://learn-keyboard.co.uk/timing.html) or click on the graphics.
5 Finger Exercises in Brief

Ok, so hopefully now you understand a little bit of timing and pitch in relation to music notation. But please remember that the practical finger exercises are of the upmost importance. And one good reason for learning to read basic music notation, is so that you can be taught these practical exercises. If you happen to learn to be able to sight read music somewhere on the way, then so much the better, but do remember that some of the best keyboard players are unable to sight read or even read music at all, Ray Charles and Stevie Wonder to mention two!

I hope you did the ‘tapping’ exercises that we started with as the 5 finger exercises are an extension of these and are positively the best exercises that there are. I understand that right now your music reading ability may be very limited. Fortunately, these exercises require only a very limited reading ability, are played on the white notes only and don’t require any finger crossovers (which you’ll learn later).

The first exercise written here in the treble clef only (right hand) follows the same pattern as the first tapping exercise. But notice that there is a gap between the first and second notes of each section which enables the exercise to ascend progressively up the scale for 7 segments. And notice that this occurs again on the descent starting in bar 8 but between the fourth and fifth fingers (of the right hand).
In part 2 there are several more of these exercises that should be practiced with each hand individually and both hands together both legato and staccato, but only at speeds that you can handle. Gradually increase the speed according to your ability, but remember that speed is not important - accuracy and timing is!

Please practice the exercises in part 2 in between studying the remaining chapters.

Audio link:  [http://learn-keyboard.co.uk/5_finger_exercises.html](http://learn-keyboard.co.uk/5_finger_exercises.html) or click on the graphic.

Quick link to Part 2

---

**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!

---
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 semi-tones) 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**

![Keyboard with intervals from C](image)
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.

---

**Kurzweil PC3K8 Workstation**

As well as being a top of the range music production tool, this is also a superb stage piano with first class piano sounds and keybed! I may well buy one of these!

---

**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.

The following 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.
**Interval Chart**

<table>
<thead>
<tr>
<th>Interval</th>
<th>Root</th>
<th>1 Semitone</th>
<th>2 Semitones</th>
<th>3 Semitones</th>
<th>4 Semitones</th>
<th>5 Semitones</th>
<th>6 Semitones (Tritone)</th>
<th>7 Semitones</th>
<th>8 Semitones</th>
<th>9 Semitones</th>
<th>10 Semitones</th>
<th>11 Semitones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor 2nd</td>
<td>C - C# - D - Eb - E - F - F#</td>
<td>F# - G - Ab - A - Bb - B - C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major 2nd</td>
<td>C - D - E - F# - Ab - Bb - B - C</td>
<td>C# - Eb - F - G - A - B - C#</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor 3rd</td>
<td>C - Eb - F# - A - C</td>
<td></td>
<td>C# - E - G - Bb - C#</td>
<td>D - F - Ab - B - D</td>
<td></td>
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<tr>
<td>Major 3rd</td>
<td>C# - F - A - C#</td>
<td></td>
<td>D - F# - Bb - D</td>
<td>Eb - G - B - Eb</td>
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<tr>
<td>Perfect 4th</td>
<td>C - F - Bb - Eb - Ab - C# - F#</td>
<td>F# - B - E - A - D - G - C</td>
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<tr>
<td>Diminished 5th</td>
<td>C - F# - C</td>
<td>C# - G - C#</td>
<td>D - Ab - D</td>
<td>Eb - A - Eb</td>
<td>E - Bb - E</td>
<td>F - B - F</td>
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<tr>
<td>Perfect 5th</td>
<td>C - G - D - A - E - B - F#</td>
<td>F# - C# - Ab - Eb - Bb - F - C</td>
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<tr>
<td>Minor 6th</td>
<td>C - Ab - E - C</td>
<td>C# - A - F - C#</td>
<td>D - Bb - F# - D</td>
<td>Eb - B - G - Eb</td>
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<tr>
<td>Major 6th</td>
<td>C - A - F# - Eb - C</td>
<td>C# - Bb - G - E - C#</td>
<td>D - B - Ab - F - D</td>
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<tr>
<td>Minor 7th</td>
<td>C - Bb - Ab - F# - E - D - C</td>
<td>C# - B - A - G - F - Eb - C#</td>
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<tr>
<td>Major 7th</td>
<td>C - B - Bb - A - Ab - G - F#</td>
<td>F# - F - E - Eb - D - C# - C</td>
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The link for this chapter is: [http://learn-keyboard.co.uk/intervals.html](http://learn-keyboard.co.uk/intervals.html).

“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!
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 $< 2 < 2 < 1 > 1 > 2 > 2 > 1 > 1$ (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: $< 2 < 1 < 2 > 2 > 1 > 2 > 2 < 2$. 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 the first five notes of the D minor scale. And yes, it is, 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 $< 1 < 2 < 2 > 2 > 1 > 2 < 2$. 
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# and C#).

![Image of D major key signature]

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.

![Image of E flat major key signature]

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

Now, rather than adding accidental sharps or flats as they appear in the notation as shown in the last two diagrams, ‘key signatures’ are used instead which are shown at the beginning of each piece. And these mean that all notes corresponding to the sharps or flats in the key signature should be sharpened or flattened accordingly unless otherwise shown, which would be by way of the ‘natural’ symbol shown previously, or a change of key signature, which can happen at any time.

The examples shown previously in D major and E flat major are shown again below in notation view with the key signatures added instead of the accidentals.
Although the second example has three flats in the key signature, only two of these occur in the phrase.

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.

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!

**Relative Minors**

The relative minor of each major key is always a minor 3rd interval below (or major 6th above), so the relative to C major is A minor. The relative minor always shares the same key signature as of the major key, but will almost certainly have additional sharps, (the 7th and possibly the 6th) as in the harmonic and melodic scales. These are not included in the key signature, but added (as accidentals) where they occur during the piece.

*So how do I tell if a piece is in a major or minor key?*
There’s lots of ways to tell i.e.:

- If there is one sharp in the key signature and the piece starts or finishes on E, it’s most probably in **E minor** and not **G major**;
- Minor keys often have additional accidental sharps not shown in the key signature which we’ll be discussing next;
- You may notice that music written in minor keys is distinctly more ‘melancholic’;
- Usually the first few notes form a major or minor chord or if there’s a chord line (as in a fake book) it’s a dead giveaway.

In the example below it can be seen that there is an **F sharp** in the key signature; which indicates that the key is either **G major** or **E minor**. As the first few notes in the treble clef form an **E minor** triad and there is a **C sharp** (melodic scale 6th) in bar 3 and **D sharps** in bars 7 & 8 (harmonic and melodic ascending 7ths), it’s blatantly obvious (perhaps not to you right now) from the melody alone that this piece is in the key of **E minor** and not **G major**. Furthermore, in the bass clef the first chord is **E minor**!

Don’t worry if you didn’t fully understand the last paragraph; we will be dealing with scales shortly after which it will make more sense!

The above example is in fact the first few bars of ‘**Greensleeves**’ which was allegedly written by King Henry VIII but was in fact probably written by some poor starving minstrel with a runny nose (hence the title) who had his head removed so that Henry could take the credit! - This was before the days of the Musicians Union!

The link for this chapter is: [http://www.learn-keyboard.co.uk/transposition.html](http://www.learn-keyboard.co.uk/transposition.html).

“**Put all your soul into it, play the way you feel!**”

Chopin
In order to progress to a reasonable level of skill and theoretical understanding, it’s absolutely essential that you know all of the major and minor scales. Running through all of the scales on a daily basis is a superb warm up exercise and only takes a few minutes when you have learnt them.

**A Pre-Scale Exercise**

In order to play scales effectively, finger crossovers are required.

The most common crossovers are achieved by passing the thumb under the third or fourth fingers ascending and passing the third or fourth fingers over the thumb when descending, as shown in the following photos.

**Passing the Thumb under (ascending)**

**Passing the 3rd Finger over (descending)**
In order to help you learn this technique, I have included this next exercise, but **you must** follow the fingering as stated so that you can practice the finger crossovers.

Practice this slowly and evenly.

---

**But what exactly is a scale?**

A scale is a series of notes played in order usually ascending and then descending for one or more octaves.

There are different types of scales including:

- Major;
- Minor (harmonic and melodic and natural);
- Whole tone;
- Chromatic;
- Pentatonic (major and minor);
- Blues.

What differentiates the various types of scales is the intervals used in their makeup. In this book, we will be dealing with every major and minor scale in every key in keyboard and music notation view as well as the pentatonic and blues scales in the most used keys and more.

To explain further we’ll firstly look at the **major** scale.

Click on any of the graphics to hear the audio examples.
The Major Scale

There are 12 major scales, one for each black and white note.

The one thing that every scale has in common is that they all follow the same pattern of intervals according to the type of scale. So, every major scale has identical intervals. The only thing that makes them different is that they start on different notes and consequently are ‘pitched’ differently.

For instance, C major in its root mode will start on C and D major on D etc.

Look carefully at the following diagram of the C major scale you’ll see that the intervals are as follows:

1. C - D is a tone (2 semitones);
2. D - E is a tone;
3. E - F is a semi-tone;
4. F - G is a tone;
5. G - A is a tone;
6. A - B is a tone;
7. B - C is a semi-tone.

Or to put it another way it’s: 2 - 2 - 1 - 2 - 2 - 2 - 1 for a one octave span, which is the interval sequence for every major scale.

So, with a bit of mathematical knowledge you could easily work out every major scale. But to save your brain they’re all included herein.

In part 2 you’ll see every major scale in every key shown both in keyboard and notation view. In all cases I’ve included the important fingering. Where no fingering is included, it simply follows consecutively.
The degrees of the major and minor scales are named as follows:

- Root - Tonic;
- 2nd - Supertonic;
- 3rd - Mediant;
- 4th - Sub Dominant;
- 5th - Dominant;
- 6th - Sub Mediant;
- 7th - Leading Note or Sub Tonic;
- 8th - Octave (Tonic).

The most important ones to remember are the 'tonic' and 'dominant'.

**Minor Scales**

Each major key has a relative minor which shares the same key signature as the major key. The relative minor can always be found by counting three semitones down from the first note (the tonic) of the major scale. For instance, three semitones down from C is A, therefore:

- A minor is the relative to C major;
- E minor is the relative to G major;
- B minor is the relative to D major;
- D minor is the relative to F major etc., etc.

Although the minor keys share the same key signature as their relative major keys, each minor key has one or more additional sharp(s) and these are always shown as accidentals as and when they occur (but never in the key signature). In the harmonic minor scale, there will only ever be one (extra) sharp, which is always the leading note - one semitone down from the tonic (the first and last note of the scale).

*So, what is the difference between a major scale and a minor scale?*

The difference is caused because of the different intervals. If you’ve been paying attention you should know that the interval sequence for all major scales is: 2 - 2 - 1 - 2 - 2 - 2 - 1.

There are two conventional minor scales, the 'harmonic' and the 'melodic', both of which have different interval sequences. The 'natural' minor scale is simply the major scale beginning and ending on the relative minor, but even this will also have different intervals (to the major scale) due to its different starting position. This is also known as the *Aeolian mode* starting on A - in the case of the A minor natural scale.
The Harmonic Minor Scale

If you look carefully at the next keyboard diagram showing the A Harmonic minor scale you will see that the intervals are: 2 - 1 - 2 - 2 - 1 - 3 - 1.

If you compare this sequence to the A major scale you’ll see that the difference is that both the 3rd and 6th notes are flattened by a semitone.

The Melodic Minor Scale

The melodic minor scale has a minor 3rd similar to the harmonic scale, but then ascends with a sharpened 6th and 7th (F# and G# in A minor), but then descends with a natural 6th and 7th (F and G natural in A minor). It’s just a bit more complicated, but well worth the effort to learn. So, the intervals are:

- 2 - 1 - 2 - 2 - 2 - 1 ascending (from the bottom); and
- 2 - 2 - 1 - 2 - 1 - 2 descending (from the top), which is exactly the same as the natural minor scale shown next.
**The Natural Minor Scale**

As already mentioned, the natural minor scale is exactly the same as the relative major starting on the 6th note also known as the *Aeolian mode*. All the modes of the major scale will be shown later. The intervals for this scale are: 2 - 1 - 2 - 2 - 1 - 2 - 2.

![A Minor (Natural) Scale (2 octaves)](image)

Ideally all of the major and minor scales should be practiced with each hand alone and then together for at least two octaves (four is better) both legato and staccato. Don’t try and practice them too quickly, it’s far better to practice them slowly, smoothly and accurately. Speed will come on its own later. All are shown in part 2 in the order that they should be learnt. Once you are familiar with them they can be practiced in any order.

**The Whole Tone Scale**

As its name suggests all the intervals in this scale are a tone apart. Using this scale can create an ‘eerie theme’ although it would become boring after a short while. I wouldn’t say that that this is a scale that you particularly need to practice, but needs mentioning nevertheless.

![C Whole Tone Scale](image)
The Chromatic Scale

The chromatic scale is one on its own as it hits every note (black and white) in order. It’s shown here starting and finishing on C for two octaves with left hand and right-hand fingering. The intervals between each note ascending and descending is a semitone.

Ideally this scale should be practiced for two or more octaves both staccato and legato starting and finishing on various notes. The fingering remains the same regardless of which note you start on.

The trick to learning this scale easily is to remember where the 2nd fingers go - F and C in the right hand and E and B in the left hand!

Korg Grandstage 73 Keys

At the time of editing this book, this is Korg’s latest Stage Piano available with 73 keys or 88. Looks great, but not had a chance to try this yet.
**Pentatonic and Blues Scales**

The pentatonic and blues scales are commonly used in pop, blues and jazz improvisations. If this is your intention, then the following scales will be vitally important to you.

**C Major Pentatonic scale (C6/9)**

![C Major Pentatonic Scale](image)

The C major pentatonic scale is simply a major triad - C, E & G with an added 6th and 9th - A & D. These notes form the C 6/9 chord.

**A Minor Pentatonic scale (Am7sus4)**

![A Minor Pentatonic Scale](image)

The minor pentatonic scale is exactly the same as the relative major pentatonic scale (as it has the same notes), but simply starts on the relative minor. The A minor pentatonic is constructed using the minor triad - A, C & E and then adding the 4th & 7th - D & G. These notes form the Am7sus4 chord.

Notice that there are no semitones in the major / minor pentatonic scales - only minor 3rds and tones.
The b3rd Pentatonic Scale

This scale is exactly the same as the major pentatonic with the exception that the 3rd is flattened.

![Cb3rd Pentatonic Scale (2 octaves)](image)

The Blues Scale

Notice the similarity between the A Blues scale and the Am Pentatonic scale. Both would work perfectly alright across an A minor chord. But interestingly the ‘A’ blues scale is also often used in the major key (A major) which has no relationship to A minor or C major at all!

![A Blues Scale (2 octaves)](image)

So, to recap and hopefully make this perfectly clear - the major and relative minor pentatonic scales are exactly the same as one another except that they start on different notes. The blues scale is the same as the minor pentatonic with an added flattened 5th passing note!

The pentatonic and blues scales are shown in detail in part 2 in the keys in which they are mainly used.

The audio link for this section is: [http://learn-keyboard.co.uk/scales_2.html](http://learn-keyboard.co.uk/scales_2.html)

Quick link to Part 2 (Scales in Full)