

What is music?

Music is a series of sounds and silences, played, sung or heard across time. Sounds may be pitched – as a single specific note - or non-pitched like the sounds some percussion instruments provide.

The two main elements of musical notes are **value** (how long the note lasts for) and **pitch** – (how high or low the note sounds).

There are other elements like volume and tone but these we can deal with later. The question is, "How can we write this music down so that we can share it with the world?" Let's find out.....

Basic music theory - sheet 1

Learning what things are called

Treble Clef - This clef (French for key) "unlocks" all the notes. Notice how one end of the sign hooks round the second line up, fixing this note at G. This is why this clef is sometimes known as the "G clef". As we know this note is G we can work out all the other notes above and below.

Stave (or staff) - the 5 lines

This note is on a **line** - the line passes through the middle of the note head

This note is in a **space** - the note head is drawn between two lines

Bar line - The music is divided into equal sections called bars. This tells us that we have reached the end of a bar.

Time signature
- this tells us that this piece of music has four beats in each bar.
The top number is the more important of the two. I'll explain the lower number a bit later on!

Final bar line
- this tells us that we have reached the end of the piece of music

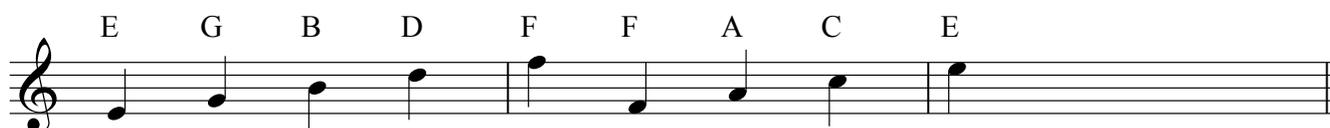
The Stave is a set of 5 parallel lines upon which we place the notes. The placement of the heads of the notes is very important and we will come to that very soon.

Basic music theory - sheet 2

The lines and spaces of the treble clef

Musical notes are named after the first seven letters of the alphabet.
When G is reached, we start again from A.

Have a look at the notes that appear on the lines and spaces of the treble clef. The names of the notes are on top.



These notes are on the lines of the treble clef.
Say "Every Good Boy Deserves Fruit"
to help you remember them.

These notes are in the spaces of the treble clef.
Say "FACE" to help you remember them.

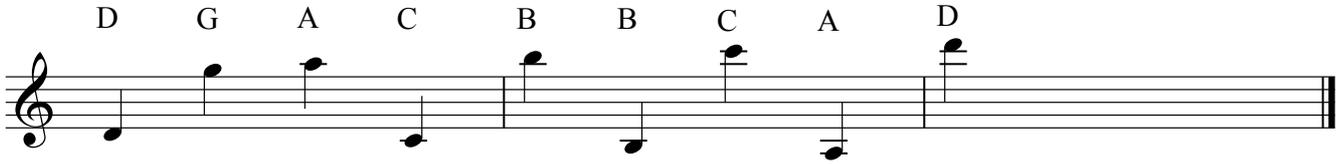
The higher the head of the note appears on the staff, the higher pitched it sounds.
The E note on the first line of the staff is said to be "one **octave** lower" than the E note in the fourth space.
The F note on the fifth line is said to be "one octave higher" than the F note in the first space.

The **stem** of the note is fairly unimportant - sometimes it goes up from the head and sometimes down.
Generally, as the note head reaches the middle line (B) the stems change direction from up to down.
This is simply to make it more pleasing to the eye.

It is very important that you look at the **clef** at the start of each staff as different clefs give you different notes!

Basic music theory - sheet 3

Some notes that are higher or lower than the staff

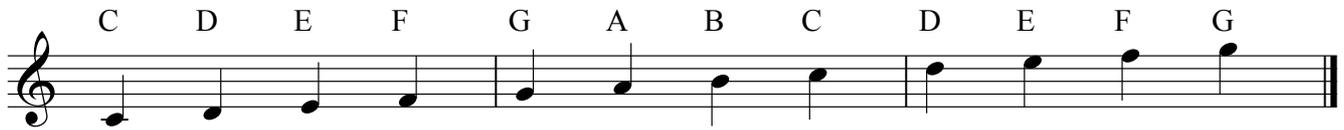


Obviously there are notes that are too high or too low to be written on the staff. Think of the staff as a series of shelves with extra storage on top and below!! Take a look at these notes. The first one, D, is in the space just underneath the first line of the staff. The second one, G, is in the space just above the 5th line of the staff. The third one, A, is on the first **ledger** line above the staff. The fourth one, C, is on the first ledger line underneath the staff.

Look at the other notes so see how they drop down below or climb above the staff on more and more ledger lines. Notes can be much higher or lower than these but of course that depends on the range of your instrument.

Basic music theory - sheet 4

Notes and the alphabet



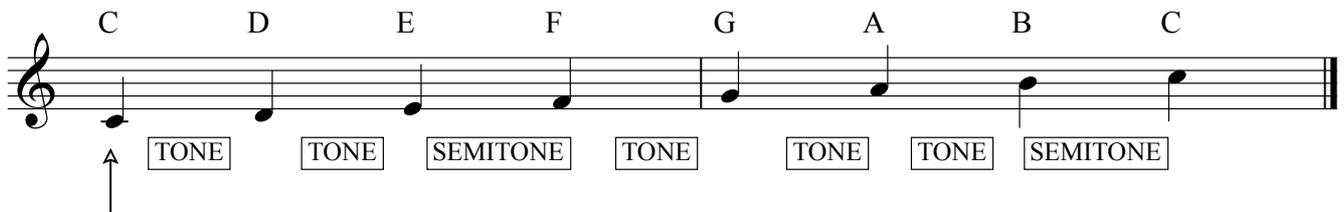
Notice how, as the notes get higher on the staff, they run in **alphabetical** order as long as you have them on consecutive lines and spaces. Remember - notes are named after the first seven letters of the alphabet so that when G is reached you start again from A.

Basic music theory - sheet 5

Understanding the C major scale

The **major scale** is a special sequence of eight notes which gives us most of the notes that we need to play many simple tunes.

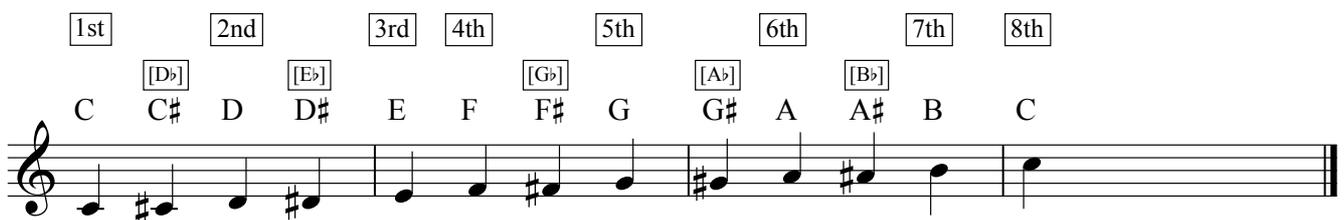
Here are the notes of the **scale of C major** ascending (going up in pitch). Notice that the first and last notes of the scale are both C. These C notes are an octave (eight notes) apart. These are not all the notes that occur between one C note and the next highest but rather, eight selected notes with specific intervals (or steps) between them. The word scale comes from the Latin word "*scala*" meaning ladder. Think of each ascending note as a rung on that ladder! The eight ascending notes are known as the degrees of the scale - C is the 1st, D is the 2nd etc.



This C is known as **Middle C** because of its position on a piano keyboard. It is also called C4 as it is the 4th C note up from the left hand side of an 88 note piano keyboard.

In between the notes I have shown the steps between them as "**tones**" and "**semitones**". It's important to realise that tones and semitones are not notes but the **distances** between notes. A semitone is the shortest step or distance that there is between two notes. A tone is equal to two semitones. This sequence of tones and semitones is the formula for **all** major scales. If you were to play this scale on a piano you would notice that you would not play any black keys. So the key of C major has no sharps or flats and so there are no sharp (#) or flat (b) signs at the beginning of each staff. This is called the **key signature** and it will make more sense when we have a look at a couple of other major scales.

Just so you know, these are all the notes that exist from Middle C up to the next C - a total of 13 inclusive. These notes are all a **semitone** apart. This is what we call a **chromatic** scale with 12 semitone steps. Compare this with the scale above to see the notes that we select to form the major scale. There are 5 unused notes which in this scale all happen to be sharps (or flats - see their alternative names*). I have labelled the 8 degrees of the major scale.

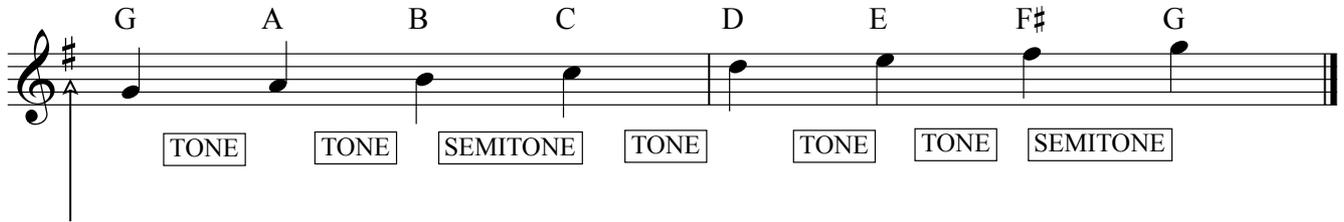


*Please notice that the note one semitone higher than C is called C# and that this note is also called Db as it is one semitone lower than D - consequently D# is also called Eb F# is also called Gb G# is also called Ab A# is also called Bb
(sharp) = one semitone higher b (flat) = one semitone lower.

Basic music theory - sheet 6

Understanding the G major scale

Here are the notes of the scale of G major ascending (going up in pitch)



Notice that the sharp sign (#) of the **key signature** is placed on the top line of the staff as this is the line used for the note F.

If you were to play this scale on a piano you would notice that you would need to play the note F# [sharp] (a black key) instead of F (a white key) to make it sound right.

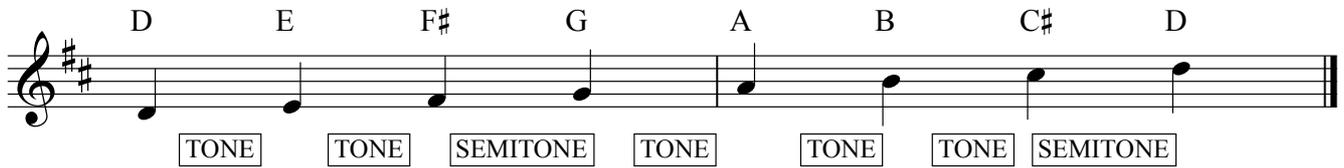
So in the key of G major we have a sharp sign [#] at the beginning of each staff (**the key signature**) reminding us to raise all F notes to F# [sharp].

You need to understand that this means that all F notes are raised to F# - not just the F at the same pitch as the sharp sign.

Basic music theory - sheet 7

Understanding the D major scale

Here are the notes of the scale of D major ascending (going up in pitch)



If you were to play this scale on a piano you would notice that you would need to play the notes F# [sharp] and C# [sharp] - both black keys, to make it sound right.

So in the key of D major we have two sharp signs [#] at the beginning of each staff (called the **key signature**) reminding us to raise all F notes to F# [sharp] and all C notes to C# [sharp].

Notice that in addition to the sharp sign (#) on the "F" line we now have a sharp sign (#) in the third space (C).

Basic music theory - sheet 8

Value - notes and their rest equivalents

The image shows three staves of musical notation in treble clef. The first staff shows a semibreve note (a whole note) and a semibreve rest (a whole bar rest). The second staff shows a minim note (half note), a minim rest, a crotchet note (quarter note), a crotchet rest, a quaver note (eighth note), a quaver rest, and two quavers. The third staff shows a semiquaver note (quarter note), a semiquaver rest, two semiquavers, and four semiquavers. Labels with arrows point to each note and rest, providing their names and durations in beats.

Notice that the heads of the smaller **value** notes (crotchet, quaver and semiquaver) are all filled-in. The larger value notes (minim and semibreve) have transparent heads. The word **value** refers to how long the note lasts for.

Notice how, when we join one or more **quavers** or **semiquavers**, we **beam** them i.e. we join them across the bottom or top with a thick line (in the case of the quavers) and two thick lines in the case of the semiquavers. It's as if we've straightened the "hooks" out to form straight lines! Also notice how similar the quaver and semiquaver rests are - make sure you know the difference!

A **rest** indicates a gap or a period of silence. Every note-type has its equivalent rest which lasts for as long as the note does. e.g. - a minim lasts for two beats and a minim rest would give you two beats of silence.

Notice the difference between the **semibreve rest** which is suspended from the 4th line and the **minim rest** which is sitting on the 3rd line.

This is all simple maths really! A single semibreve would fill a bar of $\frac{4}{4}$ time whereas you would need sixteen semiquavers to do the same job!

It's now really easy to understand the lower number in the time signature. It's really all about fractions.

$\frac{4}{4}$ time literally means four quarter notes or their equivalent in each bar. Another way of saying 4 is "a whole"!

This is why, in some parts of the world, the semibreve is referred to as a "whole note", the minim a "half note", the crotchet a "quarter note" and the quaver an "eighth note". Fractions you see!!

Basic music theory - sheet 9

Dotted Notes

This is a dotted minim. The dot adds on half of the original value of the note.
A minim is worth 2 beats so the value of this dotted minim is 3 beats.
Look at the counting on top of the bar - notice how the dotted minim occupies the first three beats of the bar.

The image shows a musical staff in 4/4 time. The first bar contains a dotted minim note (half note with a dot) on the middle line, which occupies the first three beats. The counting above this bar is "1 2 3 4". The second bar contains a dotted crotchet note (quarter note with a dot) on the middle line, which occupies the first half of the first beat. The counting above this bar is "1 2 and 3 4". An arrow points from the first box to the dotted minim note, and another arrow points from the second box to the dotted crotchet note.

This is a dotted crotchet.
The dot adds on half of the original value of the note.
A crotchet is worth 1 beat so the value of this dotted crotchet is one and a half beats.
The dotted crotchet is often followed by a quaver to make up the "missing half" of the next beat.
Look at the counting on top of these notes - the count of "2" is actually where the dot occurs - the quaver that follows is on the "and" count.

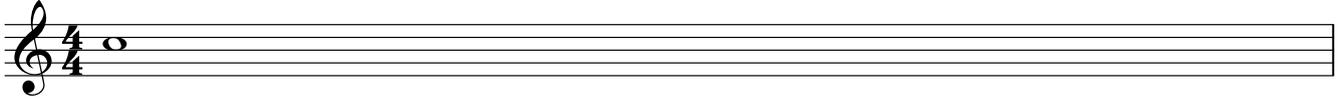
Basic music theory - sheet 10

Counting the beats

Look at the counting on top of each bar. Remember, all these bars last exactly the same amount of time!
Don't forget, however many notes there are in each bar, you must keep the the counting of the 4 main beats ("1234") the same distance apart!

A single semibreve

"1 2 3 4"



Two minims

"1 2 3 4"



Four crotchets

"1 2 3 4"



Eight quavers

"1 and 2 and 3 and 4 and"



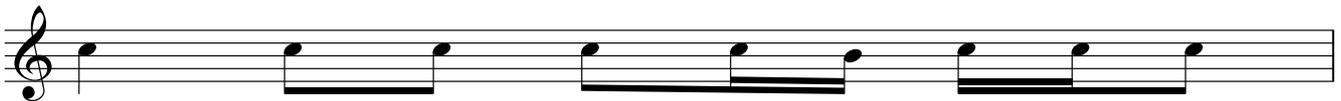
Sixteen semiquavers

"1 a and a 2 a and a 3 a and a 4 a and a"



A mixture of a crotchet, quavers and semiquavers

"1 2 and 3 and a 4 a and"



A mixture of a dotted crotchet, a quaver and two crotchets

"1 2 and 3 4"



Basic music theory - sheet 11

Simple Repeats



This sign tells you to repeat from the start.



This sign tells you to repeat from where the sign is reversed.
(Bar 7)