

1st April - Louise_Lesson1_Logic

Hand out on beats per minute and bars and beats.

Hello everyone. It's Louise here from the Wednesday afternoon Logic sessions. Hope you are all doing well and I'm looking forward to seeing you all again in the future.

In this hand out I'll be giving you an introduction to the term Beats Per Minute also known as BPM and also I'll be talking about how to count bars and beats.

These concepts are important whether you are a producer, a DJ or a lyric writer, as they will help you understand song structure and they are the building blocks of any tune.

When you are next listening to music, tap your foot or clap your hands along to the tempo of the tune and start counting. You will be counting the beats of the tune. The speed at which you count indicates the tempo of the tune. When you have counted how many beats there are in a minute of a song you will have determined the number of beats per minute or BPM.

For example

126 beats over 60 seconds = 126 BPM

A quicker way to do this would be to count the number of beats over 15 seconds then multiply by 4 which will give you the same answer. If you have a stopwatch on your phone you can set it to 15 seconds then start it and the song at the same time or when the first beat comes in, once 15 seconds is up, whatever figure you come up with you should multiply it by 4.

For example

30 beats over 15 seconds x 4 is = to 120 BPM

36 beats over 15 seconds x 4 is = to 144 BPM

Here are some examples of some genres and their typical BPMs

Grime = 140BPM

House = 120BPM

Drum'n'Bass 180BPM

Jungle 160BPM

Rap 80 - 145BPM

Garage - 130BPM

Techno 120-150BPM

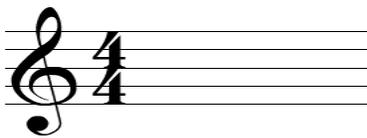
Old Skool Hip Hop 80 - 90BPM

Now let's have a look at bars and beats.

In dance music and pop music every bar is equal to 4 beats (well most of the time anyway). So each nod of the head or hand clap to the music is one beat so every four nods or hand claps is equal to one bar.



Each one of the notes in the diagram is equal to a beat so 4 beats = 1 bar.



This diagram indicates the time signature of a tune. The 4 at the top tells us that each bar is equal to 4 beats and the 4 at the bottom tells us that the type of note is a quarter note, so this bar will be equal to 4 quarter notes per bar.

So you can count 1-2-3-4 1-2-3-4 for each bar when listening to a song.

Most modern dance music, pop or electronic music tends to be in 8, 16 or bar sections. So 8 bars is equal to 8 lots of 4 beats or 16 bars is 16 lots of 4 beats.

Often you will hear an 8 or 16 bar section then there will be a change in the music to mark the end of the section so you might hear an 8 bar intro of a string instrument then a vocal or a bass drum might come in or alternatively something might drop out. These sections are called musical phrases and they will continue throughout the song.

A good thing to do when you are listening to music is to notice where the musical phrases start and finish. After a while you won't even need to count as you will probably already know instinctively but it's good to understand the theory.

So if you hear a drum start playing in a tune that is a good place to start counting and you can count like this

So you would count beats and bars like this

1-2-3-4 2-2-3-4 3-2-3-4 4-2-3-4 and so on and see how many bars you count before you hear a change in the music.

In the next hand out we will apply these concepts to making beats.

Thanks for reading
Louise

