



Drum n' Bass



A guide for GCSE Music

By
Omar Khokher

The Music Teacher's Resource Site

www.mtrs.co.uk

Drum 'n' Bass Music - Teachers Notes

Aims of this guide

The screen shots in this guide are from Cubase, although this is adaptable for use with Logic and other sequencers. The examples are given in midi format so that they can be used with all types of software.

This guide aims to familiarise teachers and pupils with the features and compositional techniques of Drum 'n' Bass music. This guide can be used with the following GCSE areas of study:

Syllabus	Area of Study	Application
AQA	Dance Music Popular Song since 1960	Composing a Drum 'n' Bass piece for a Rave. The impact of technology on dance music. How tempo has got faster in dance music (the need for speed!). The socio / cultural fusions of Drum 'n' Bass Music. How composers have 'sampled' from other genres and musical traditions. The impact of technology on Popular Songs (e.g. Re-mix).
EDEXCEL	New directions in Western Classical Music 1990 to present Rhythms, scales and modes in music from around the world	The role of technology within composition. The development of rhythm and tempo. Fusion of jazz with Drum 'n' Bass. The fusion of Indian music and Drum 'n' Bass (e.g. Talvin Singh).
OCR	Exploiting the Resource Dance Music Traditions and Innovations	Composing a Drum 'n' Bass backing track for live voice or instrument. Composing a Drum 'n' Bass piece for a Rave. The impact of technology on dance music. The relationship between Drum 'n' Bass with Jazz, Reggae and Minimalist music.
WJEC	Music Evolution	The development of dance music. The impact of music technology. The development of rhythm and tempo.

What is Drum 'n' Bass Music?

Drum 'n' Bass evolved from the Jungle Music of the late 1980's - early 1990's. It was Jungle that first took breakbeats and sped them up to tempos that had never been heard before (150bpm upwards!) in Techno music, this further demonstrated how technology could overtake what was not humanly playable. The result was a highly energetic and rhythmically charged form of music. Breakbeats are sampled and retriggered to create complex, syncopated, rhythmic variations. A pounding sub-bass line (influenced by Reggae music's dub bass) is used to 'phatten' the depth of the music. A final layer is atmospheric chords, which are slow moving and using complex jazz harmonies - this contrasts against the frenetic breakbeats.

These are the basic elements from which Drum 'n' Bass grew. This music has now evolved into a well respected style with the likes of Bowie, Madonna, Depeche Mode and Everything but the Girl fusing elements of Drum 'n' Bass into their music.

Drum 'n' Bass is a 'groove-based' style, as there is so much emphasis on the use of rhythm. Groove patterns are 'looped' - or 'copy and pasted'. Drum 'n' Bass music broke into the popular chart scene through the work of LTJ Bukem, Goldie and Roni Size. Their music featured a stronger sense of structure, texture, lyrics and emotional depth. Various musical genres and traditions have been fused with Drum 'n' Bass including Jazz (e.g. Courtney Pine who also uses elements of Hip Hop) and Traditional Indian music (e.g. Talvin Singh).

LTJ Bukem



Bukem was responsible for taking the Drum and Bass concept from a small venue off London's Charing Cross Road to the nation's super clubs and then onto the international stage.

From running sound systems to cutting up breaks at raves, from relocating the heart of breakbeat culture to redefining the spirit of

Drum and Bass, the man known to his friends as Danny Williamson has sat at the forefront of breakbeat evolution, lighting the way with little more than a zest for life and a love of music.

Bukem's first introduction to music was, through piano lessons as a child. He turned out to possess a natural talent and he quickly moved through the piano grades. Classical music represented the soundtrack to his home life.

Both parents had a passion for Rachmaninov and Tchaikovsky that rubbed off on their son. However it was when the family moved to Watford and Bukem changed music teachers that he developed his first true musical love. Thanks to a progressively minded teacher he was introduced to the world of jazz-fusion, a style which has influenced his work ever since.

In the mid eighties, at the age of seventeen, Bukem discovered the joys of clubbing. The teenager regularly checked out the local soul clubs and legendary rare groove all dayers. As a keen record buyer he soon became interested in the idea of putting over his own version of the club soundtrack and before long he got involved with a sound system. Throughout this time he also had a jazz funk band, although this had never presented itself as a serious past time, just fun.

The DJing was his main thing and by 1987 he gained something of a reputation for his sets. However it was 1988 that Bukem first realised that DJing could offer a full-on career. In 1990, LTJ Bukem got his first big break at Raindance. Booked to play between in front of 10,000 people, it was the first true test of his young DJ skills. It may have taken all his mates to push him onto the stage but it proved to be a set that he'll

never forget. From the first track he ripped it up and LTJ Bukem, the world class DJ was truly born.

Around this time Bukem had also ventured into the studio to record a track, which was to become one of the most influential records of the era called 'Logical Progression'. At once Anthemic and relaxing it offered the first true blueprint to Bukem's sonic vision. By the time of his follow up to 'Logical Progression' Bukem had set up his own label. Run from a small office in Harlesden, London, the label was christened Good Looking and its debut offering came in the shape of 'Demon's Theme'. Finished in mid 1990 and pressed up onto dub-plate, Bukem dropped it into his sets for a full year just to test the reaction before he finally released the track officially in July 91.

'Demon's Theme' caught people's imaginations immediately, its soulful combination of rushing breaks, lush ambience and mellow vibes opening up fresh sounds within the increasingly dark ambience of the rave.

Goldie - Autobiography



Some people might call what I do Drum 'n' Bass. But I'm not going to narrow it down to what the music industry thinks is commercially viable. I'm not really into narrow thinking. Making this music is like poker. You begin with five cards. You don't play poker with two cards. That's just the rule of the game. Once you learn how to play you can bend the rules.

I've been in this game for as long as I can remember, seeking out bits of punk rock, pop and reggae when I was still a kid in Walsall. When slap bass days arrived in the mid '80's, I started to get into Loose Ends, Change and

Maze. I even gave Rastafarianism a shot earning myself the nickname Goldielocks, but then the hip-hop scene blew up and you can't spin on your head if you've got locks. So I said see you later to that!

Hip-hop allowed me to express myself artistically for the first time. Doing graffiti art made me learn how to make something out of nothing, and it got me involved in the music scene. I spent time in New York exhibiting my work and appeared in Africa Bamba's feature film 'Bombing' as one of Britain's top graffers. In '86, I moved out to Miami and started a business selling engraved gold teeth. By 1990 I was on the move again, to London, where something very special was about to kick off...

The club was Rage at Heaven. Everyone was just going for it. The adrenaline was pumping around the place. I heard DJs playing a weird hybrid sound, there was still the late rave stuff but here was a new sound, a mad fusion of the old and new. I'd always been the sort of kid who wanted to belong and felt like I'd found a home. In '92 I produced my first track as Ajax Project while I was doing some design and A&R work for 4Heros's Reinforced label. My next tunes 'Killermuffin' and 'Menace' were put out under my early name Rufige Kru on the Metalheadz label. At first I was just this deranged kid at Rage with gold teeth shining, this nutter talking a million miles an hour. I remember clutching the cage, watching Fabio or Grooverider take the record I'd made out of the box and put it on the deck and thinking "F**k, f**k"!

By late '92 a darker sound was taking over. By '93, recording as Metalheadz, I had released my Darkcore anthem 'Terminator', lifting the buzz saw synth riff from Joey Beltram's 'Mentasm' alongside the mutating breakbeats that began to characterise darkcore. It was just like rebelling with the music. The darkness was Britain's new urban blues. Dark to me was just a representation of the way people were feeling at the time, there was a recession and the country was in decline. But forward ever backward never, I was in the studio again creating something fresh.

My '93 release 'Angel' was one of the first tracks to push what the industry referred to as Drum 'n' Bass in a more musical direction. Rage shut down this year with AWOL quickly stepping in to fill the void that it left behind. Meanwhile I was working on my debut album 'Timeless'. For me 'Timeless' was the ultimate statement of Drum 'n' Bass's technical sophistication and manipulation. Back then I was the first of the Drum 'n' Bass crew to sign to a major label; London records. To me this made no odds, I didn't care if music was underground or overground; I knew where it came from!

'Timeless' shot straight into the album charts at number seven, which was a first for a Drum 'n' Bass record. Inner City Life, one of the album's vocal tracks, became a signature tune at LTJ Bukem's club Speed in 1994. But my style was now far removed from the Jungle music that I was putting out in my Rage days.

By '95 the Metalheadz label was well up and running. Then came the Metalheadz Sunday Sessions at the Blue Note. The atmosphere was just unreal and Drum 'n' Bass was the music of the moment. In '96 and '97 I collected awards for 'Timeless', my DJing, the Metalheadz label and my compilation album 'Platinum Breakz'. It was fair to say I'd arrived, but I was by no means burnt out and I was looking for new ways to challenge myself as an artist. In my second album 'Saturnz Returns' the tones and tempos were more varied, the experiments bolder and the tracks definitely more personal. No one could sing about my own misfortunes more than me. I just wanted to be sincere in my work.

Sometimes I think back to when I was a kid staring out of the window going "I'm really depressed, I really want to make it". To go from that to now is to go from real extremes and it's quite unbelievable to me. In '99

I played a bad guy in James Bond film 'The World is Not Enough' and also in Guy Ritchie's 'Snatch'. In 2001, I had a part in Eastenders as a Gangster called Angel. It's surreal. But now my focus is getting back on the music while keeping the acting thing going strong.

After a two year break the Metalheadz Sunday Sessions has a new home at The Limelight, Shaftsbury Avenue. I'm currently in the studio recording my third album 'Sonic Terrorism'. Meanwhile I've got a release out under my old name Rufige Kru called 'Stormtrooper VIP / The Beach' on Metalheadz. The stuff I'm putting out as Rufige Kru is more dancefloor than my new album, which is more like my older experimental stuff. The new Metalheadz album Platinum Breakz 3 has also just been released.

So, Metalheadz has been away for a while, but it isn't dead. We don't need to put out releases every five seconds to prove ourselves. The label is still one of the most respected on the scene. After a decade of doing music it's still all good for me.

Roni Size



Roni Size grew up in Bristol where he was exposed to the hip-hop scene through local sounds systems and house parties. Expelled from school as a teenager, he tuned in to his brother's collection of Studio One reggae, who eventually helping him to construct a home studio. He began spending time at a local youth club scheme called the Basement Project where he learned the basics of music production.

Eventually, after purchasing a sampler, Size set up the Full Cycle label in 1992 and released 'Music Box'. The label's distinctive sound combined jazz breaks with Drum 'n' Bass energy and was also influenced by dub, '50s be-bop and Motown. As a producer Size's pioneering and unique style emerged capturing the attention of Bryan Gee, who made Size's 'Agility' the first release on his V Recordings label. Three years of releases culminated in 'It's Jazzy', one of the biggest underground tunes of that year and a number of major record companies sought to sign up Size.

Size came up with the master plan of forming a Drum 'n' Bass 'All Star' group to release on a major label. He brought in his MC (Dynamite) and a female singer (Onallee). This was a major part of the Reprazent project that went on to win the Mercury Music Prize 1997. Initially an outsider, the 'New Forms' album heralded a breath of fresh air for the Drum 'n' Bass genre and pushed forward the boundaries of live performance.

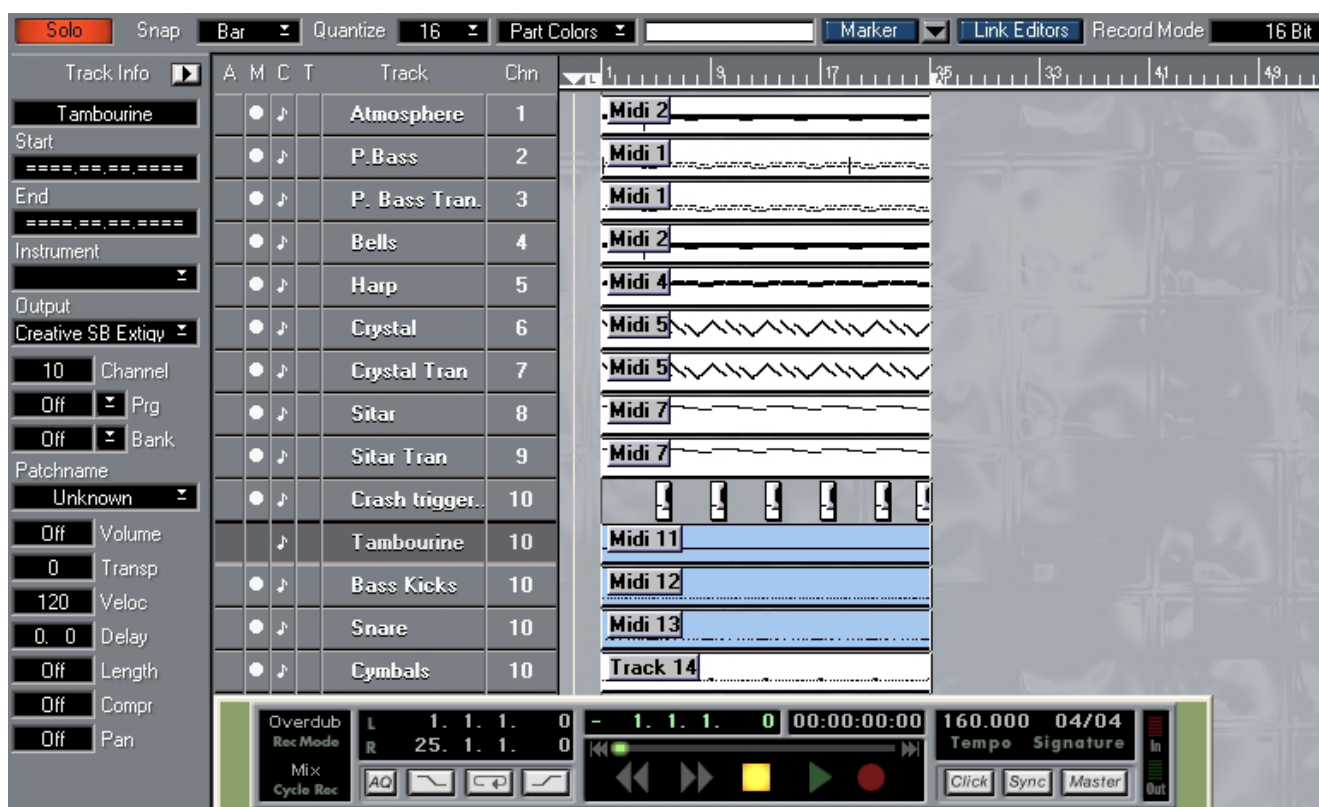
The success of 'New Forms' led to worldwide tours, award winning live shows and the opportunity to produce music for movie soundtracks as well as remix for some of the worlds biggest artists (U2, Sarah McLachlan, Janet Jackson) as well as Masters At Work and Basement Jaxx. The second Reprazent album, called 'In the Mode', took the same line-up to new heights and included tracks with guest vocalists Zack (RATM), Method Man and Rahzel as well as the ever-present Dynamite MC (Who Told You, Dirty Beats) and Onallee (Lucky Pressure). 2001 saw Size becoming much in demand as a producer.

Composing a Breakbeat

The breakbeat is a key feature of Drum 'n' Bass music. While they sound fast and complex they are simple to construct if you recognise the principle features.

Drum 'n' Bass is much more jazz influenced than Jungle and this is represented by the use of Semiquaver (16 beat) 'shuffle' rhythms. This forms one layer of the break beat and runs almost constantly. This is played by bright percussion timbres such as shakers, tambourines or maracas.

If you open the Drum 'n' Bass Midi file using Cubase and 'SOLO' the tambourine track you will hear constant semiquavers:



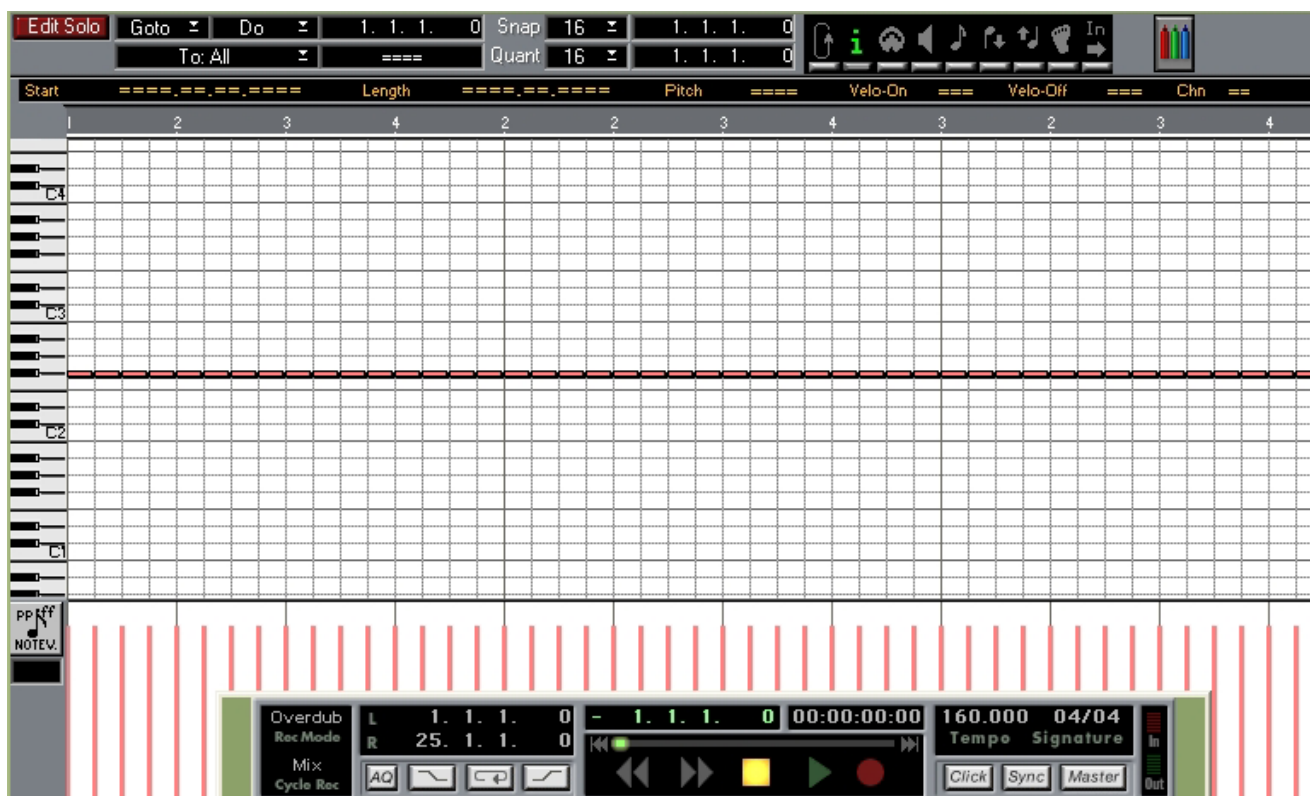
These provide a rhythmic stability for all the complex syncopation to 'lock into':

Tambourine



Composing a Breakbeat

If you 'double-click' on the tambourine part you are taken into the edit window, this provides a graphic version of the part. Here you can edit the part by drawing in notes. You can also edit the velocity to make all the notes have an even 'attack'.



Notice that the SNAP and QUANTISE values are both set to 16 (meaning Semiquavers or 16th Notes) - This allows you to edit at that value.

HINT - It is hard playing a drum part at 160bpm. Change the tempo on the transport bar to a more manageable one. You can always change the tempo later.



Double-click here to change the tempo.

Record your own 'Shuffle' Semiquaver part. Limit yourself to just four bars - this makes 'Copy & Pasting' easier. Don't forget to choose a bright timbre.

Composing a Breakbeat

You can now go on to add Bass Kicks. Mute all the parts apart from the tambourine and bass kicks. You will hear a two-bar repeated loop:



The rhythm is syncopated apart from the first and last beats of the loop. This is a common feature of Drum 'n' Bass.

Record in your bass kicks - keep it simple, as there are more layers of percussion to be added.

HINT - If your pattern consists mainly of Quavers (and rests) set your SNAP and QUANTISE values to 8. To QUANTISE your part click on it once and use 'Q' as a keyboard short-cut (if you are using Cubase).

This is how the bass kicks look in the edit view:

Don't forget to edit the velocity!

Composing a Breakbeat

Now we can look at adding parts for snare drum, cymbals and crash cymbal. Listen to these parts in turn by muting the others. You will hear the use of a very fast roll, which has a 'machine gun' effect. This is a very important element in the Drum 'n' Bass breakbeat.

These rolls use Demisemiquavers (32nd notes) and can be drawn in using the edit view:

NOTE: The SNAP and QUANTISE values have been set to 32.

The screenshot shows a DAW interface with a piano roll. The top control bar has 'Snap' and 'Quant' both set to 32. The piano roll shows a sequence of notes, with a prominent purple roll of notes in the center. The bottom control bar includes transport controls (play, stop, record) and mixer controls (click, sync, master). A red arrow points from the 'Snap' and 'Quant' settings to the piano roll, and another red arrow points from the piano roll to the 'HINT' text below.

HINT - When editing the velocity you can 'ramp up or down' the velocity of the rolls. This creates an exciting 'crescendo' or a 'diminuendo' after the climax of a phrase. For an example of the velocity being 'ramped down' view the Crash track in the edit view. This has been broken into demisemiquavers to give the effect of being 'retriggered'.

Composing a Breakbeat

If you highlight all the drum tracks and go to 'EDIT' and select 'DRUM' you get a 'map' of all the drum parts in the breakbeat:

The screenshot displays a DAW's piano roll for a drum track. The top control bar shows 'Edit Solo' and 'Drum Solo' (To: All, Bass Drum 1). The piano roll has columns for 'Start', 'Length', 'Pitch', 'Velo-On', 'Velo-Off', and 'Chn'. The drum parts listed on the left include Bass Drum 1, Side Stick, Ac. Snare, Hand Clap, El. Snare, LowFloorTom, Cls HiHat, HiFloorTom, Pedal HiHat, Low Tom, Open HiHat, LowMid Tom, HiMid Tom, CrashCymb1, High Tom, Ride Cymb1, ChineseCymb, Ride Bell, Tambourine, SplashCymb, Cowbell, CrashCymb2, Vibraslap, Ride Cymb2, and Hi Bongo. The piano roll shows a complex pattern of notes and velocities across 16 measures. A control bar at the bottom shows recording mode, mix, cycle rec, and transport controls.

You can now go on to create your own breakbeat.

FINAL HINTS:

- Simple ideas are the best as you are dealing with many layers of percussion.
- Use the 'SNAP' and 'QUANTISE' functions.
- Recording at a slower tempo will allow you to play your parts accurately.
- Use the EDIT view to draw in fast notes (e.g. 'rolls') and edit the VELOCITY for Crescendos and Diminuendos.
- SAVE your work often and BACK IT UP!

Composing Drum 'n' Bass Chords

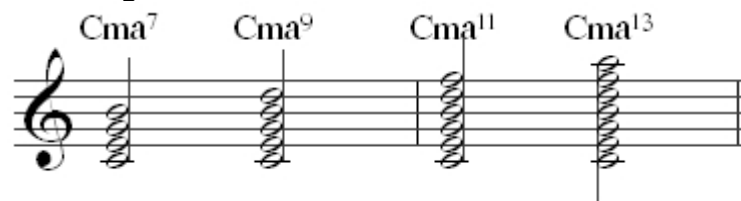
Having composed breakbeat, we can now go on to add chords. Chords in Drum 'n' Bass music are generally slow moving using Semibreves (Whole notes), Minims (Half notes) or Crotchets (Quarter notes). These give the effect of being at 'half tempo' compared to the breakbeats. For example you have a breakbeat at 160bpm contrasted by chords that appear to be at 80bpm.

These chords often use 'chord extensions' - this is by adding the 7th, 9th, 11th or even the 13th above the name note of a chord.

If you take a two octave scale of C major:



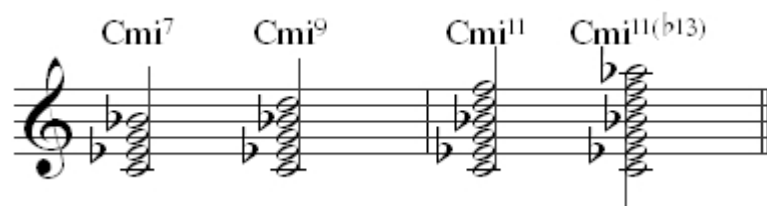
You get the following extensions:



If you take a two octave scale of C minor (using the 'natural' minor):

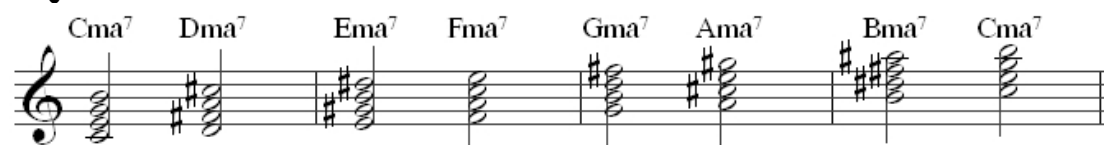


You get the following extensions:

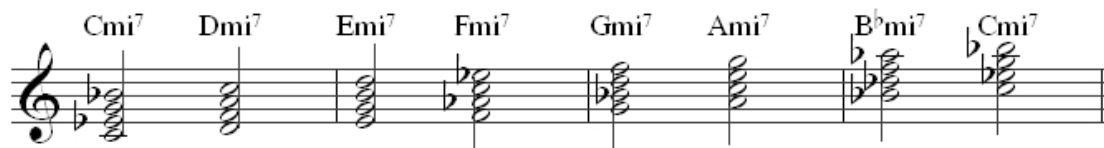


Also if you take a scale (e.g. C major) you can make a major 7th or minor 7th chord on each note:

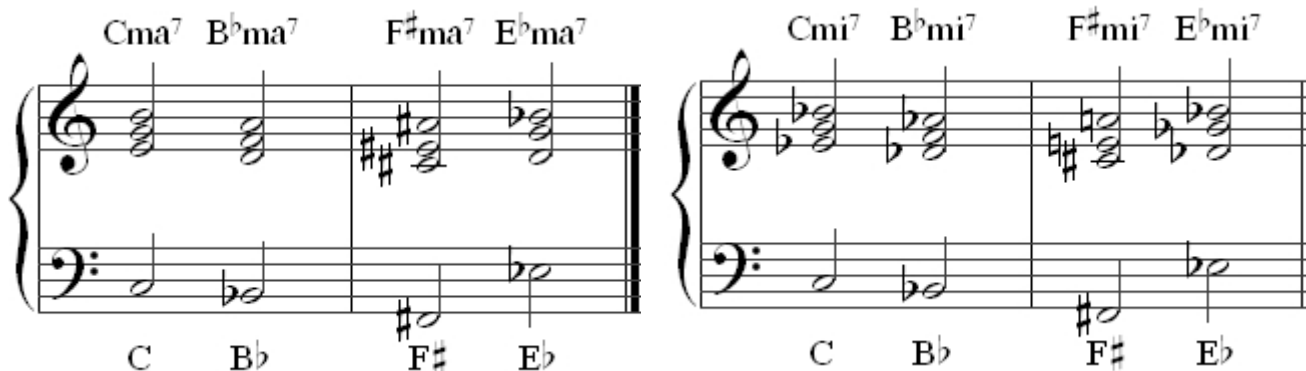
Major 7th's



Minor 7ths



Another technique is to pick four notes totally at random e.g. C, Bb, F# and Eb and use these as the 'Root' (first note) for making Major or Minor 7ths:



If you play these chords you will see that the movement between notes is smooth, this is called '**voice leading**' - this means that each note of the chord is arranged to it can move onto the next without too big a jump. This can be worked out using a grid using arrows:

Chord Name	Cmi7	Bbmi7	F#mi7	Ebmi7
Seventh (7)	Bb	Ab	E	Db
Fifth (5)	G	F	C#	Bb
Third (3)	Eb	Dd	A	Gb
Root (1)	C	Bb	F#	Eb

You can now re-space the chords so the notes move smoothly:

Cmi7	Bbmi7	F#mi7	Ebmi7
Bb	Ab	A	Bb
G	F	E	Gb
Eb	Db	C#	Db
C	Bb	F#	Eb

You can use this grid to arrange the voice leading of your chords:

Chord Name				
Thirteenth (13)				
Eleventh (11)				
Ninth (9)				
Seventh (7)				
Fifth (5)				
Third (3)				
Root (1)				

Re-write the spacing of you chords here:

Chord Name				
Root (1)				

NOTE - You do not have to use all the extensions up to the 13th - space has been allowed if you choose to!

Sounds from 'Synth Pad' or 'Synth Effects' are effective for your chords. In the example midi file the 'Atmosphere' sound is used - again you can solo this track to listen. The chord sequence consists of three chords that are $A_{mi}7$, $E_{bmi}7$ and $F_{mi}9$. Double click on the track to see the part in the edit view:

The screenshot shows a MIDI editor interface. At the top, there are various settings like 'Edit Solo', 'Goto', 'Do', 'Snap', 'Quant', and 'Tempo Signature'. Below that, a piano roll displays three chords: $A_{mi}7$, $E_{bmi}7$, and $F_{mi}9$. A red arrow points to the gaps between the chords, indicating where editing can be done to clear the sound before the next chord.

HINT - Editing short gaps between the chord changes allows for the sound to clear before the next chord is heard.

Chord Name	$A_{mi}7$	$E_{bmi}7$	$F_{mi}9$
Ninth (9)			G
Seventh (7)	G	Db	Eb
Fifth (5)	E	Bb	C
Third (3)	C	Gb	Ab
Root (1)	A	Eb	F (in bass line)

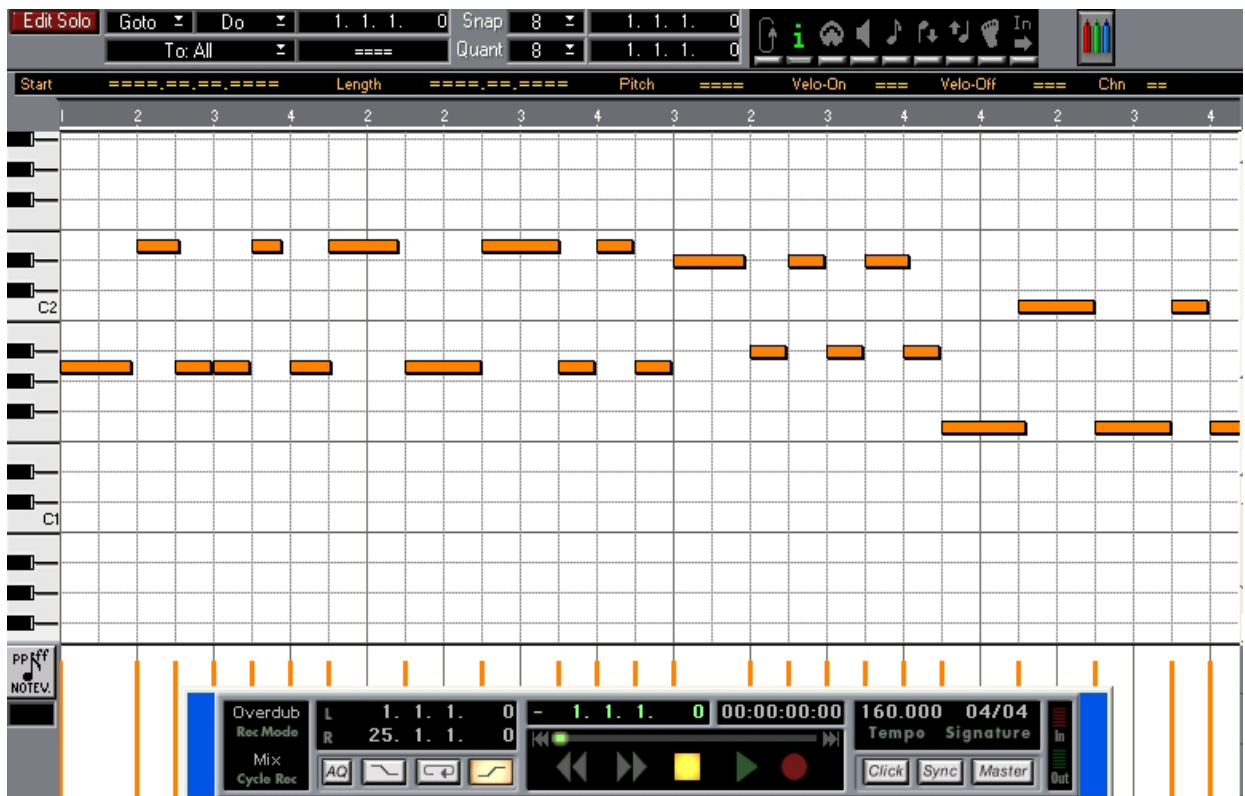
NOTE - It doesn't matter that the Root is missing from the $F_{mi}9$ chord as this is played in the bass line.

Composing a Bass Line

Drum 'n' Bass bass lines are very much influenced by Dub bass. This is a very low-pitched bass. The relationship between the bass line and breakbeats is very important and a Drum 'n' Bass bass line tends to use only the Root and fifth of a chord. If you mute all the tracks apart from the breakbeats and picked bass you will hear the following bass loop:



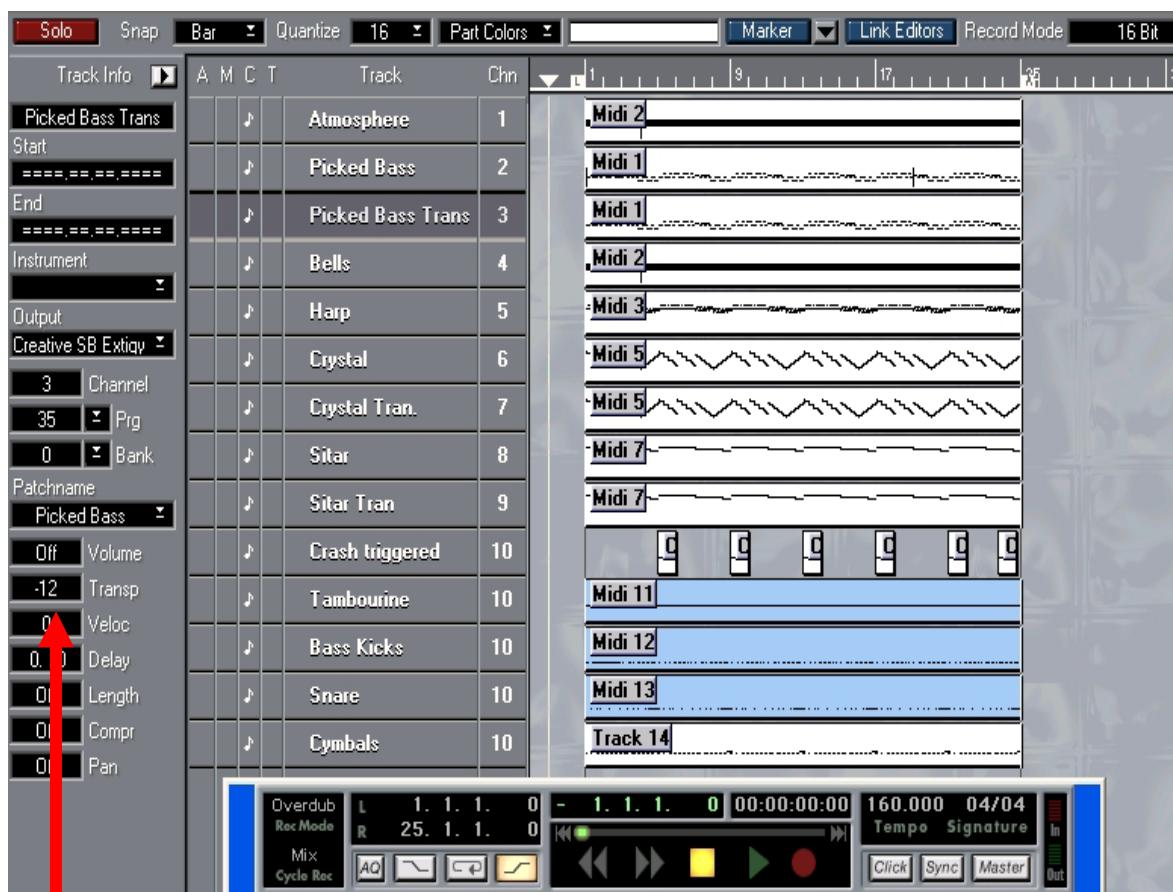
If you double-click on the track it looks like this:



The next step is to turn this into a Dub Bass line. Dub Bass sounds can be emulated by using the 'Picked Bass' or 'Fretless Bass' sounds.

Once you are happy with your bass line and have edited it, 'Copy and Paste' it, then move the copied version onto an empty track.

Select the voice you want and then use the 'TRANSCOPE' function to move it down one octave. An octave consists of 12 semitones so you will need to enter '-12'. To transpose it down two octaves enter '-24'.



Here is the TRANSPOSE function.

HINT - The Transpose function can be very useful. In Midi example 1, the Bell track is copied from the Atmosphere track and transposed up two octaves '+24'. This adds a high 'attack' to the timbre of the chords. The Crystal Tran. Is copied from the Crystal track and transposed up a fifth '+7' and the Sitar Tran is copied from the Sitar track and transposed down a fourth '-5'. These techniques give the effect of harmony as well as adding another part. Again you can listen to the effect by muting all the other tracks.

The transpose function is not just limited to sounds of the same timbre, for example you could copy the bass line onto any voice and transpose it from there.

Remember that the transpose function is measured in semitones.

Adding Riffs and Loops

Now that the breakbeat, chords and bass line have been composed, riffs and loops can be added. These add melodic or 'decorative' interest. In the example there are three Riff ideas:

- The Harp - Semiquaver (16th notes) arpeggios of the chords.
- The Crystal parts - Semiquaver (16th notes) descending and ascending scales that match the notes of the chords.
- The Sitar parts - a melodic Riff based on the voice leading of the chords.

Solo each part in turn to hear its effect.

NOTE - Each Riff is related to the notes or scale of the chord - this reduces any clashes.

Here is an example of the Crystal scales:

The screenshot shows a DAW piano roll with a 16th-note grid. The notes are arranged in a descending and then ascending scale across several measures. Below the piano roll is a MIDI piano keyboard visualization with a colorful scale. The DAW interface includes various controls like 'Edit Solo', 'Goto', 'Do', 'Snap', 'Quant', 'Velo-On', 'Velo-Off', and 'Chn'.

Ami⁷ **Ami⁷**

A G F E D C B A G F E D C B A G A G F E D C B A G F E D C B A G

E^bmi⁷ **Fmi⁹**

E^b D^b C B^b A^b G^b F E^b D^b C B^b A^b G^b F E^b D^b C D^b E^b F G A^b B^b C D^b E^b F G A^b B^b C D^b

Structure and Drum 'n Bass Music

When you look at Midi example 1, you will see that all the parts are playing together - this creates a very 'busy' texture that may be more suited to the climax of a section.

To create a structure, cut each track every four bars this will create a 'brick wall' appearance:

The screenshot shows a MIDI software interface with 13 tracks. The tracks are: Atmosphere (1), Picked Bass (2), Picked Bass Trans (3), Bells (4), Harp (5), Crystal (6), Crystal Tran. (7), Sitar (8), Sitar Tran. (9), Crash triggered (10), Tambourine (10), Bass Kicks (10), Snare (10), and Cymbals (10). The MIDI piano roll shows that for the first four bars of a section, every track has a MIDI note, creating a dense, 'brick wall' texture. The interface includes a track list on the left, a MIDI piano roll on the right, and a control panel at the bottom with transport controls and a mixer.

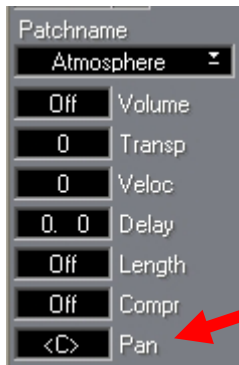
You can now delete some of the 'bricks' or 'Copy and Paste' to create a texture where the parts build up. Compare this with Midi example 2:

The screenshot shows the same MIDI software interface as above, but with a sparse MIDI arrangement. The tracks are: Atmosphere (1), Picked Bass (2), Picked Bass Trans (3), Bells (4), Harp (5), Crystal (6), Crystal Tran. (7), Sitar (8), Sitar Tran. (9), Crash triggered (10), Tambourine (10), Bass Kicks (10), Snare (10), and Cymbals (10). The MIDI piano roll shows that the tracks enter and exit at different points, creating a building texture. For example, the Atmosphere track starts at bar 1 and ends at bar 4, while the Picked Bass track starts at bar 1 and ends at bar 8. The interface includes a track list on the left, a MIDI piano roll on the right, and a control panel at the bottom with transport controls and a mixer.

Extension Work

Here are some ideas to take you Drum 'n' Bass composition further:

- Experiment with editing other parameters than just VELOCITY (e.g. MODULATION and PAN).



'Panning' is a good way of deciding how you want to 'spread' each track across the stereo field. The values are up to R64 (meaning Right speaker) and L64 (meaning Left speaker). 'C' means centre.

- Add vocal samples over the MIDI tracks. If you don't have the facilities - get a singer or instrumentalist so play over the backing.
- If your software has 'Virtual Instruments' or 'VST Instruments' try experimenting with these sounds.
- If your hardware uses GS or XG sounds explore these - including the Drum Kits.
- Record your Drum 'n' Bass track as a backing track for vocalists or instrumentalists.
- If you have recording software (e.g. Sound Forge) save you work in 'MP3' or 'Real Audio' formats and post it on your school website!

Glossary of terms

Ambient

Ambient is music that you can't dance to, or can you? It may or may not have a beat, and is primarily designed for a chilled out trip to synth-driven fantasy. Often combining natural and "found sounds" which can be looped through processors to create original unique sounds. Attributes: Very electronic and spacey, often featuring long sound effect, intros and breaks, and occasionally featuring mixes 20 minutes long (or more!). 0 to 140 BPM. Examples: The Orb, Amorphous Androgynous, Future Sound Of London and many releases on the Rising High, Hardkiss, Fax, Apollo or Astralwerks.

Ambient Drum 'n' Bass

A very smooth style, which uses a wash of dreamy string sounds, combined with time stretched beats. Also known as Artcore.

Breakbeat

A rhythmic pattern, always in 4/4, created by stretching out short rhythmic patterns. These use layers of syncopated beats usually with semiquavers (16th notes) running consistently. This layer is often played using a high hat, tambourine or shaker sound and creates a sense of rhythmic stability among all the syncopation. The Breakbeats are repeated as a continuous rhythmic pattern called a 'loop'. This can be 'copy and pasted'. The tempo of the breakbeat is stretched to 150bpm and beyond.

Dark

The interim sound between Hardcore and Jungle music, which employed disorientating Ambience, horror music samples, and time stretched breakbeats. Also known as Darkcore or Horrorcore. (A good example is Goldie's 'Terminator'.)

Drum 'n' Bass

Pre 1994 a term used to describe the basic element of Jungle Music. Post 1994, the term is used to describe a more musical and technologically complex style of Jungle music.

Freeform

Freeform is a sub-genre of Hardcore Dance Music that uses influences from Hard Trance and Techno music.

Gabba / Gabber

This one of the Hardest forms of Dance music.

Started back in the early 90's and pioneered by acts such as "Rotterdam Termination Source" (remember 'Poing'?) and "Human Resource" and was a lot softer then than what it is now. It had a metrical 4 beat unlike the breakbeat sound that was being embraced in England. In fact its sound was very close to Bouncy Techno.

As the years went on the bass drums got very hard and the speed of Gabba records became very very fast.

People still DJ this style today. Gabba has formed its own offshoot called Nu Style Gabba.

Happy Hardcore

Until recently, at the base of every Happy Hardcore track was a breakbeat - a fast, complex, flowing, synthesised drumbeat. The drums used do not sound like real drums and are not meant to. There is always a bass drum, usually distorted, every beat (4 beats to the bar, hence Happy Hardcore's alternative name of 4-beat).

There can be pianos, strings, stab patterns (sequences of quite hard synth sounds), uplifting female vocals, bass (anything from an acid squelch to a deep rumbling sine wave), etc. Most Happy Hardcore tracks are around 160 to 180bpm, but 175bpm seems to be the most common speed.

Hardstep

A minimal form of Jungle music which strips away most of the melody and uses a cleaner and more prominent breakbeat, with added treble to exaggerate the crispness of the sound. The break beats usually emphasise the second and fourth beats.

Hardcore

A harder a faster derivative of Hip House (circa. 1990-1991) that uses a combination of sped up breakbeats lifted from Hip Hop and Belgian Techno music. Usually typified by a staccato melody, high-pitched vocals and a regular 4/4 beat of a bass drum. Often known as Rave music.

Hip House

A combination of the sounds of Hip Hop breakbeats and Chicago House music. This was popular towards the end of 1989 and through the following year.

Jazz Step

Hardstep influenced by Jazz Music.

Jazzy Jungle

Ambient Drum 'n' Bass combined with samples of jazz music, usually taken from 1980's jazz funk records (e.g. samples of James Brown's music).

Jungle

Jungle is typified by time stretched breakbeats playing at approximately 160 bpm (beats per minute), with reggae influenced bass lines running at half the tempo (80bpm). The metronomic sound of a bass drum, which emphasises the strong beats, is removed.

Ragga

A form of Reggae, which features the vocals, rapped or 'chatted' by an MC (Microphone Controller) over instrumental versions of the music. The lyrics comprise of a fusion of Jamaican patois and the street slang of inner-city London. A good example is the music of Sean Paul's album 'Dutty Rock'.

Ragga-Jungle

The fusion of Ragga vocal lines (called 'licks') and Jungle rhythms.

Rave

Term used to describe large-scale dance events - often organised illegally and involving the influence of illegal and harmful drugs (e.g. Ecstasy). These were also called Warehouse parties in the 1980's.

Sampling

This is the digital recording of a short audio or MIDI track, which is called a sample. This can be edited either by timestretching or pitch shifting using a piece of hardware or software called a sampler (also see 'triggering').

Sleng Teng

A fusion of Reggae and the Germanic-Techno sound of Kraftwerk (composers of *'Das Model'*). It is typified by a techno-sounding 'buzzing' bass line.

Speedcore

Very fast and very hard Hardcore Dance Music. Normally above 250 BPM and uses the roughest sounds around and sometimes incorporates Rap/Hip Hop vocals.

Techno

Techno is referred to as music using technology to create it rather than real instruments.

It was first pioneered in the late 70's by bands such as Kraftwerk and has moved on to create lots of sub-genres such as Hardcore Techno, Breakbeat, Gabba and more.

Terror / Terrorcore

A style which was born from the Hardcore / Gabba movement in 1994. It's faster, harder and more aggressive than Gabba (240 bpm seems to be the slowest) and often uses samples from horror movies (female screaming etc.).

Time stretching

The use of a sampler or software to alter the tempo of a sample without altering its original pitch or timbre. (Found in Sonic Foundry's 'Sound Forge').

Toytown

A style of Jungle music that used songs and samples from children's programmes (e.g. Sesame Street and The Magic Roundabout). A famous example that reached media acclaim is 'Charlie' by the Prodigy, which takes samples from a child safety video. Ironically this style was popular at Raves and was associated with the taking of Ecstasy.

Triggering

When a sample is played or 'triggered off'. Either all of the sample is played or just a fraction of it. If the sample is played over and over again, either completely or partially, this is called 'retriggering'.

General Midi Sound Set

001	Acoustic Grand Piano
002	Bright Acoustic Piano
003	Electric Grand Piano
004	Honky-tonk Piano
005	Electric Piano 1
006	Electric Piano 2
007	Harpsichord
008	Clavi
009	Celesta
010	Glockenspiel
011	Music Box
012	Vibraphone
013	Marimba
014	Xylophone
015	Tubular Bells
016	Dulcimer
017	Drawbar Organ
018	Percussive Organ
019	Rock Organ
020	Church Organ
021	Reed Organ
022	Accordion
023	Harmonica
024	Tango Accordion
025	Acoustic Guitar (nylon)
026	Acoustic Guitar (steel)
027	Electric Guitar (jazz)
028	Electric Guitar (clean)
029	Electric Guitar (muted)
030	Overdriven Guitar

031	Distortion Guitar
032	Guitar harmonics
033	Acoustic Bass
034	Electric Bass (finger)
035	Electric Bass (pick)
036	Fretless Bass
037	Slap Bass 1
038	Slap Bass 2
039	Synth Bass 1
040	Synth Bass 2
041	Violin
042	Viola
043	Cello
044	Contrabass
045	Tremolo Strings
046	Pizzicato Strings
047	Orchestral Harp
048	Timpani
049	String Ensemble 1
050	String Ensemble 2
051	SynthStrings 1
052	SynthStrings 2
053	Choir Aahs
054	Voice Oohs
055	Synth Voice
056	Orchestra Hit
057	Trumpet
058	Trombone
059	Tuba
060	Muted Trumpet
061	French Horn
062	Brass Section
063	SynthBrass 1
064	SynthBrass 2

065	Soprano Sax
066	Alto Sax
067	Tenor Sax
068	Baritone Sax
069	Oboe
070	English Horn
071	Bassoon
072	Clarinet
073	Piccolo
074	Flute
075	Recorder
076	Pan Flute
077	Blown Bottle
078	Shakuhachi
079	Whistle
080	Ocarina
081	Lead 1 (square)
082	Lead 2 (sawtooth)
083	Lead 3 (calliope)
084	Lead 4 (chiff)
085	Lead 5 (charang)
086	Lead 6 (voice)
087	Lead 7 (fifths)
088	Lead 8 (bass + lead)
089	Pad 1 (new age)
090	Pad 2 (warm)
091	Pad 3 (polysynth)
092	Pad 4 (choir)
093	Pad 5 (bowed)
094	Pad 6 (metallic)
095	Pad 7 (halo)
096	Pad 8 (sweep)
097	FX 1 (rain)

098	FX 2 (soundtrack)
099	FX 3 (crystal)
100	FX 4 (atmosphere)
101	FX 5 (brightness)
102	FX 6 (goblins)
103	FX 7 (echoes)
104	FX 8 (sci-fi)

105	Sitar
106	Banjo
107	Shamisen
108	Koto
109	Kalimba
110	Bag pipe
111	Fiddle
112	Shanai

113	Tinkle Bell
114	Agogo
115	Steel Drums
116	Woodblock
117	Taiko Drum
118	Melodic Tom
119	Synth Drum
120	Reverse Cymbal

121	Guitar Fret Noise
122	Breath Noise
123	Seashore
124	Bird Tweet
125	Telephone Ring
126	Helicopter
127	Applause
128	Gunshot

35 Acoustic bass
drum

36 Bass Drum 1

52 Chinese Cymbal

53 Ride Bell

69 Cabasa

70 Maracas

37	Side Stick	54	Tambourine	71	Short Whistle
38	Acoustic Snare	55	Splash Cymbal	72	Long Whistle
39	Hand Clap	56	Cowbell	73	Short Guiro
40	Electric Snare	57	Crash Cymbal 2	74	Long Guiro
41	Low Floor Tom	58	Vibraslap	75	Claves
42	Closed Hi Hat	59	Ride Cymbal 2	76	Hi Wood Block
43	High Floor Tom	60	Hi Bongo	77	Low Wood Block
44	Pedal Hi-Hat	61	Low Bongo	78	Mute Cuica
45	Low Tom	62	Mute Hi Conga	79	Open Cuica
46	Open Hi-Hat	63	Open Hi Conga	80	Mute Triangle
47	Low-Mid Tom	64	Low Conga	81	Open Triangle
48	Hi Mid Tom	65	High Timbale		
49	Crash Cymbal 1	66	Low Timbale		
50	High Tom	67	High Agogo		
51	Ride Cymbal 1	68	Low Agogo		