

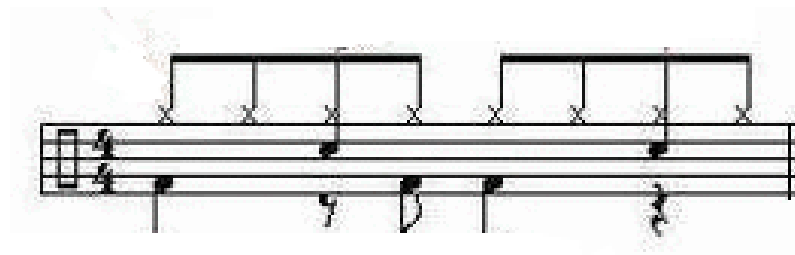
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**Rough Draft by Michael Jansson (Dj Rush).**

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# **A Crash Course in pop song songwriting.**

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# Introduction: STAVE, BARS AND CLEF

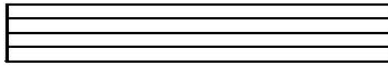


Fig. 1. **Staff**

Music is written on five horizontal lines, called the staff. This is divided into sections called bars by vertical bar lines.

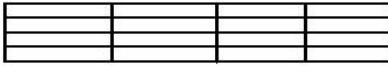


Fig. 2. **Bars**

At the beginning of the staff you find a symbol called a clef. Depending on your instrument this will either be the treble clef (high instruments),



Fig. 3. **Treble clef**

or the bass clef (low instruments).



Fig. 4. **Bass clef**

Note duration			
Name	Note	times shorter than a whole note	Rest
Whole Note		(times shorter)	
Half Note		2 (times shorter)	
Quarter Note		4 (times shorter)	
Eighth Note		8 (times shorter)	
Sixteenth Note		16 (times shorter)	

## THE BEAT AND TEMPO

The beat is the regular pulse that all music is shaped round. The tempo is the speed at which the beat goes. You cannot play music without first deciding on a tempo.

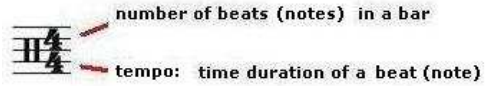


Fig. 5. **Time signature**



Each piece is divided into the same amount of beats in each bar. The time signature at the beginning of the staff, is made up of two numbers, one above the other. The top number shows number of beats to a bar.

## RHYTHM

The rhythm is the length of the notes how they fit around the beat. To play rhythm you must feel the tempo in your head and at the same time keep a steady 1 2 3 4 1 2 3 4 count.

Fig. 8.



## DIFFERENT PITCHES

Different pitches or notes are named using the first seven letters of the alphabet (A to G). Each line and space between lines on the staff is used by one note.

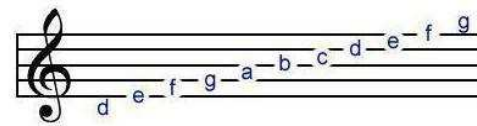


Fig. 6. **The treble clef pitch**

On the treble clef the bottom line is an E, the space above it an F, the line above that a G, and so on. The bass clef starts with a G on the bottom line, so the space above that is an A, etc..

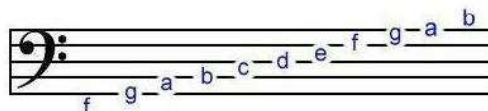


Fig. 7. **The bass clef pitch**

## Back to the basics

Why quarter notes?? More than 75 % of pop music today is written in quarter notes. 66% of those 75% use 16 bars per verse.

In quarter notes with the time signature '4/4' one bar has 4 notes in it.

The top number is the number that tells how many beats there are in a bar. So, in, for example, '4/4', there are 4 quarter note beats in one bar.

The bottom number describes the note that equals one beat. So in this case it is a quarter note. Hence the '4'.

Look below, here we have four significant notes, two kick drum notes and two snare drum notes, kick, snare, kick, snare! That makes 4 notes.

**One bar of quarter notes.** (time: 2 seconds)

1.....	2.....	3.....	4
kick	snare	kick	snare
one	two	one	two
one	two	three	four

Vocalists prefer the 'One two, one two' counting scheme.

## Half notes in '4/4 time'

Half notes in '4/4 time' would be held for half of the bar or two of the 4 beats of the bar. Each half note would be played for the duration of half of the bar as follows:

(time: 4 seconds)

.....one.....two.....three.....four  
 (.....One..... Two.....one.....two..)

(Vocalists prefer the 'One two, one two' counting scheme.)

For the bars above in '4/4 time' you would count: 1 2 during the first half note in the bar and: 3 4 during the second half note in the bar.

You would either count for two beats before going to the next half note or tap your foot two times in even intervals. For the bars above in '4/4 time' you would count: 1 2 during the first half note in the bar and: 3 4 during the second half note in the bar.

## Note Duration

A half note is always twice as long as a quarter note. But how long each note actually lasts depends on the time signature and the tempo.

## Holding half notes in '4/4 time'.

Holding half notes in '4/4 time' implies that, either holding that word or note from the beat of the kick drum, and releasing that word or note, and at the same time, beginning the next note or word, at the next beat of the kick drum. **Skip the snare drum beats,** or

holding that word or note from the beat of the snare drum, and releasing that word or note, and at the same time, beginning the next note or word, at the next beat of the snare drum. **Skip the kick drum beats.**

(time: 2 seconds)

1.....	2.....	3.....	4
kick	snare	kick	snare
one	snare	two	snare
or			
kick	one	kick	two

thus, Half notes in '4/4 time'

## Rapping in '2/2 time' ??

**"Rapping" is rhythmically saying one word or parts of a phrase at every beat of the hihat.**

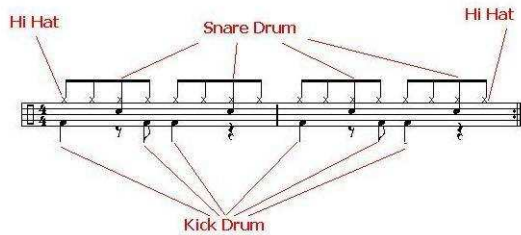
Rapping in '2/2 time? Now that would sound interesting. R&b/soul singers and vocalists stretch words because they do it in '2/2 time', '2/4 time' etc.

First of all, singing in '2/2 time' can be likened to talking in slow motion, try saying only 2 words every 2 seconds, stretch and hold the syllables.

So in 2/2 time, one fits 2 half notes (or words) in a bar, thus, one would have to stretch or hold that note or word or syllable (sequence of speech) for the duration of the time signature.

# The rock beat

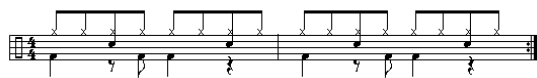
from a percussionist's point of view.



2 bars (time: 4 seconds)

the by far the most widely used pattern is the 'kick snare kick kick snare kick snare kick kick snare' drum pattern of the rock beat, which is used in most styles of music, such as pop, rock, reggae, hiphop, mb/soul etc etc.

## The Rock Beat drum Pattern



2 bars (time: 4 seconds)

OH: -----X-----X-----  
 CH: X-x-X-x-X---X-x- X-x-X-x-X---X-x-  
 SN: ---X-----X--- ---X-----X---  
 BD: X---X-X------ X---X-X------

BD= kick drum  
 SN= snare drum  
 CH= closed Hihat  
 OH= open hihat

### Pattern Summary:

- 4 snare drum beats
- 4 (6) kick drum beats
- 16 hihat beats

### For vocalists:

the kick starts the beat,  
 and the snare ends the beat,  
 the hihat sets the flow of words.  
 normally one word per hihat beat  
 depending on the extent  
 one has to hold or stretch a tone,  
 note or word.

### For musical instrumentalists:

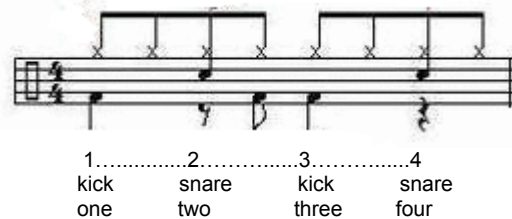
Bass players, guitarists, pianists etc,  
 go by the beat of the hihat .

# Word durations

**Singing in '2/2 time':** slow motion tempo, one fits 2 words in a '2 seconds' bar. A half note is twice as long as a quarter note. '2/2 time' = **one word or parts of the phrase at the kick and snare drum beat.**

**Singing in '4/4 time':** normal pop song tempo. One fits 4 words in a '2 seconds' bar. Quarter notes are the notes of choice to sing in.

One bar of '4/4 time' notes. (time: 2 seconds)



4 words, or half a line of lyrics per bar.

'4/4 time' singing means that one fits one word per 2 hihat beats, or one word or parts of the phrase at every kick and snare drum beat.

'4/4 time' = **one word or parts of the phrase at the kick and snare drum beat.**

(one word or parts of the phrase at the beat of the hihat.)

**Rapping in '8/8 time' in '4/4 time':** normal rapping tempo. One fits 8 words in a '2 seconds' bar. A eighth note is twice as short as a quarter note. '8/8 time' = **one word or parts of the phrase at the beat of the hihat.**



.....1.....2.....3.....4.....1.....2.....3.....4  
 2 bars (time: 4 seconds)

All music happens in "bars" of time.  
 In America this is more often called a measure which is a slightly more descriptive word.

A bar is a like a length of time.  
 If you think of it as time,  
 it can vary according to the tempo  
 (speed) of the music, but, it can  
 always be divided up into more notes  
 over that space of time.

# Song technique

Hiphop artists denote one line of lyrics as one bar. Thus in hiphop terms 16 bars of notes would then have 16 lines of lyrics.

Musicians tend to write a bar of notes per line of lyrics, to make reading the lyrics as easy as possible.

**For vocalists:** the kick drum starts the beat and the snare ends the beat, the hihat sets the flow of words, normally **one word per hihat beat** depending on the extent one has to hold or stretch a tone, note or word.

**For Musical Instrumentalists:**

Bass players, guitarists, pianists etc, go by the beat of the hihat.

**In practice: How to Rap! Ride the beat.**

start off the bar of lyrics with precision and on point at the first beat of the kick drum, and, finish off at the beat of the snare drum.

The average is that, one can fit three words between the kick and the snare drum beat, depending on the extent one has to hold or stretch a tone, note or word.

Start at the first beat of the kick drum, finish at the beat of the snare drum. Ride the beat, up at the kick, down at the snare. Up.. Down..., up.. Down.

**Bar 1 (2 seconds)**

line of lyrics:



flow..... stop  
Start...Finish.....Start...Finish  
Up.....Down.....Up.....Down

**Bar 2 (2 seconds)**

line of lyrics:



flow..... stop  
Start...Finish.....Start...Finish  
Up.....Down.....Up.....Down

**Bar 3 (2 seconds)**

line of lyrics:



flow..... stop  
Start...Finish.....Start...Finish  
Up.....Down.....Up.....Down

**Bar 4 (2 seconds)**

line of lyrics:



flow..... stop  
Start...Finish.....Start...Finish  
Up.....Down.....Up.....Down

# The tempo

1 bar is  or kick snare kick snare, in layman terms.

**Tempo and Beats per minute:**

Time of 1 bar	Beats per minute	Bars
2.7 sec	88 BPM	8
2.6 sec	92 BPM	8 -16
2.5 sec	96 BPM	8 -16
2.4 sec	100 BPM	8 -16
2.3 sec	104 BPM	8 -16
2.0 sec	120 BPM	8 -16
1.9 sec	126 BPM	8 -16
1.8 sec	133 BPM	8 -16

The relationships between bar time and beats per minute can be expressed with the equations:

$$BPM = \left| \frac{60}{\text{Bar time}} \right| \times 4$$

For extracting BPM, and

$$\text{Bar time} = \left| \frac{60}{\frac{BPM}{4}} \right|$$

for extracting the length of 1 bar in seconds.

The kick starts the beat and the Snare ends the beat. The metronome sets the tempo.

Vocalists focus on the snare drum, often timing the peak out of their lyrics to the snare, raising the voice pitch in sync

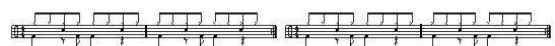
The flow of words is synched or timed to the metronome or hihat, one word per metronome tick.

Popsong samples and beats vary from a 2 bar length (kick snare kick snare, kick snare kick snare), approximately 4 to 5 seconds, to a 4 bar length (kick snare kick snare, kick snare kick snare, kick snare kick snare, kick snare kick snare), or approximately 8 to 10 seconds, and the practice is that, one fits, in a 2 bar beat, 1 line of lyrics



2 bars fits one line of lyrics.

Whereas in a 4 bar beat, one fits 2 lines of lyrics.

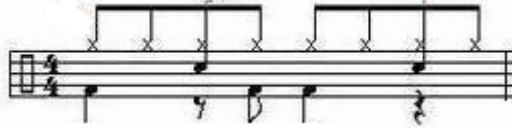


4 bars fits two lines of lyrics.

## The 16 bars format

### One bar:

In quarter notes composed in a '4/4 time', one bar is 4 notes, 'kick snare kick snare.'



1 bar

4 words, or half a line of lyrics per bar.

One bar length consists 2 kick drum beats and 2 snare drum beats.  
Most bars are between 2.0 and 2.5 seconds of length or 0.75 to 1.25 seconds between two snare drums.

Most normal popsongs tend to have verse lengths of 12 to 16 bars, and chorus lengths of 8 to 16 bars hence the 16 bars format.

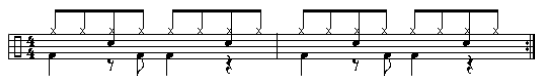
### Verse lengths:



### Chorus lengths:

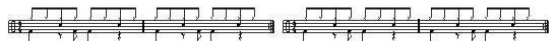


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2 bars fits one line of lyrics.

Whereas in a 4 bar beat, one fits 2 lines of lyrics.



4 bars fits two lines of lyrics.

**Tempo:** 96 BPM

**1 bar length:** 2.5 sec

**1 Verse length:** 16 bars x 2.5 sec.. 40 seconds

**1 chorus length:** 8 bars x 2.5 sec.. 20 seconds

**verse + chorus =** 40 + 20 = 60 seconds.

**Song length:** 3 x 60 sec..180 seconds ( 3 minutes)

**intro/outro:** 20 seconds + 20 seconds = 40 seconds

**Total song Length:** 3 minutes 40 seconds.

## Song lengths

The first 8 bars of a verse contains the hook.  
The next 8 bars contains the bridge which makes a total of 16 bars for the hook and the bridge.  
After that, the chorus - which can be 8 – 16 bars.

Most pop songs tend to have  
verse lengths of 16 bars  
chorus lengths of 8 bars

Some poppy RnB songs and some disco music in '4/4 time' tend have  
verse lengths of 12 bars  
chorus lengths of 8 bars

Slow BPM Songs like R&B and soul music in '4/4 time' tend to have  
verse lengths of 8 bars  
chorus lengths of 8 bars

	Bars per verse	Beats Per Minute
<b>Fast BPM</b> (Normal pop)	16	96 - 133
<b>Medium BPM</b> (Beyonce - 12 bars)	8 – 16	88 - 96
<b>Slow BPM</b> (RnB Soul)	8	88

A basic '4/4 time' song flow/sequence template. 16 bars per verse, 8 - 16 bars per chorus.  
The first 8 bars contains the hook. The next 8 bars, the bridge (16 bars total). After that, the chorus, 8 - 16 bars.

## The Verses



verse 1,verse 2, verse 3 : Lyrics Lyrics Lyrics Lyrics

Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

bars 1 - 4



verse 1,verse 2, verse 3 : Lyrics Lyrics Lyrics Lyrics

Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

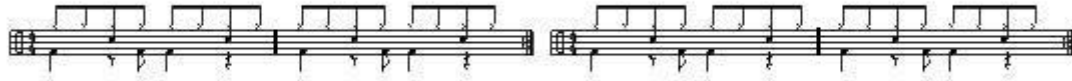
bars 5 - 8



verse 1,verse 2, verse 3 : Lyrics Lyrics Lyrics Lyrics

Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

bars 9 - 12



verse 1,verse 2, verse 3 : Lyrics Lyrics Lyrics Lyrics

Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

bars 13-16

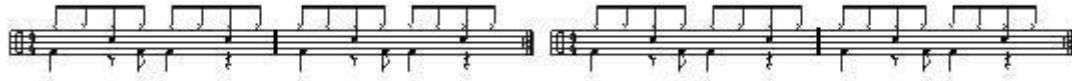
## The Chorus



Chorus : Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

bars 1 - 4

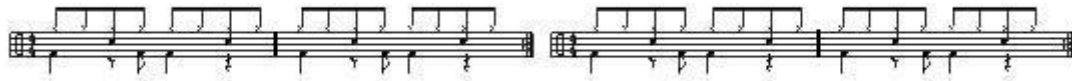


Chorus : Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

bars 5 - 8

### ( long chorus )



Chorus : Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

bars 9 - 12



Chorus : Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics Lyrics

bars 13-16

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## Song Sequence Overview.

<b>Intro Bridge</b>	<b>Verse 1</b>	<b>Chorus 1</b>	<b>Verse 2</b>	<b>Chorus 2</b>	<b>Verse 3</b>	<b>Chorus 3</b>	<b>Outro Bridge</b>
8 Bars 20 secs	16 Bars 40 secs	8 bars 20 secs	16 Bars 40 secs	8 Bars 20 secs	16 Bars 40 secs	8 Bars 20 secs	8 Bars 20 secs.

**Tempo:** 96 BPM

**1 bar length:** 2.5 sec

**1 Verse length:** 16 bars x 2.5 sec.. 40 seconds

**1 chorus length:** 8 bars x 2.5 sec.. 20 seconds

**verse + chorus =** 40 + 20 = 60 seconds.

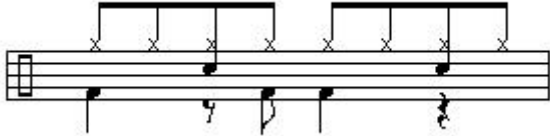
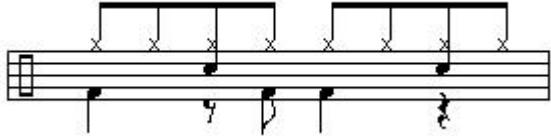
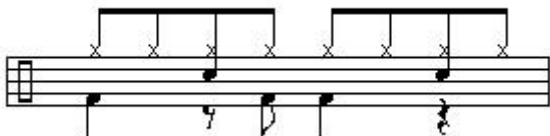
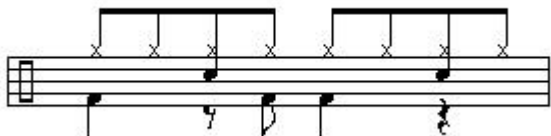
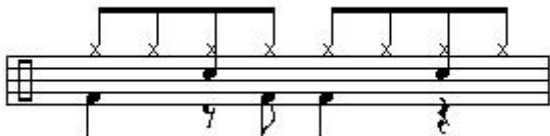
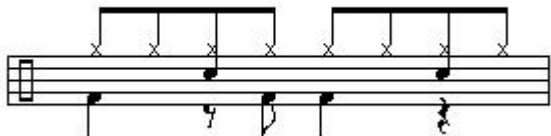
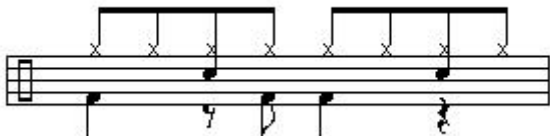
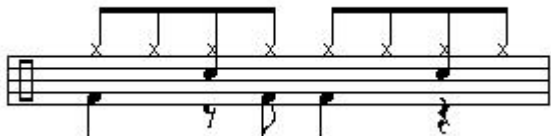
**Song length:** 3 x 60 sec..180 seconds ( 3 minutes)

**intro/outro:** 20 seconds + 20 seconds = 40 seconds

**Total song Length:** 3 minutes 40 seconds.

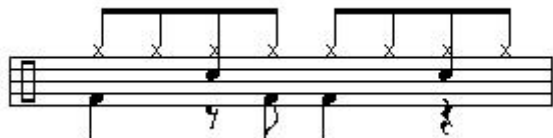
Write your own '4/4 time' song. (One verse template, print 3 copies for whole song )

### Verse 1 (bar 1- 8)

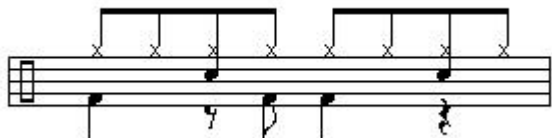
<p>Bar 1 (time: 2 seconds)</p> 	<p>Bar 2 (time: 2 seconds)</p> 
.....	
<p>Bar 3 (time: 2 seconds)</p> 	<p>Bar 4 (time: 2 seconds)</p> 
.....	
<p>Bar 5 (time: 2 seconds)</p> 	<p>Bar 6 (time: 2 seconds)</p> 
.....	
<p>Bar 7 (time: 2 seconds)</p> 	<p>Bar 8 (time: 2 seconds)</p> 
.....	

Verse 1 (bar 9 - 16)

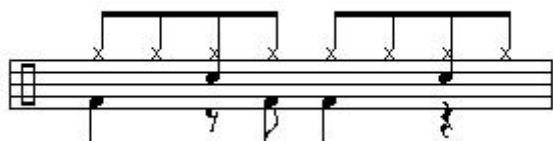
Bar 9 (time: 2 seconds)



Bar 10 (time: 2 seconds)



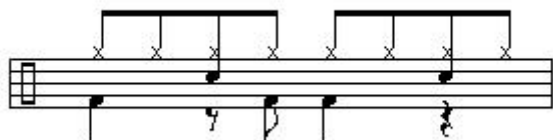
Bar 11 (time: 2 seconds)



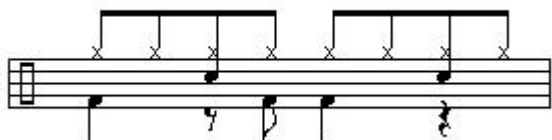
Bar 12 (time: 2 seconds)



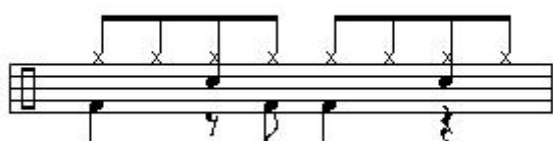
Bar 13 (time: 2 seconds)



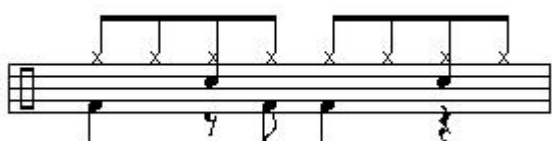
Bar 14 (time: 2 seconds)



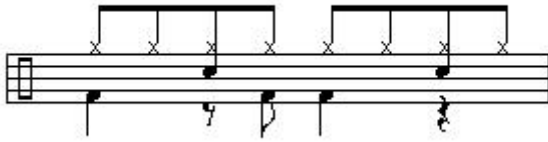
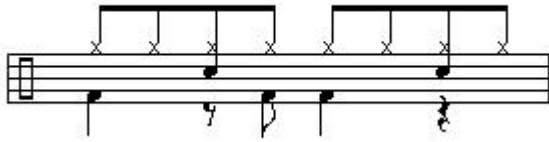
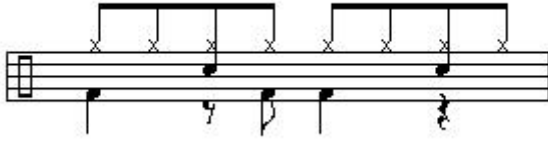
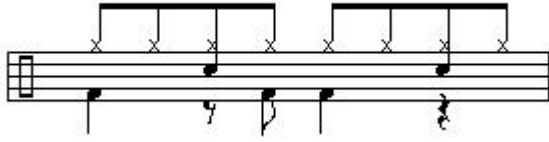
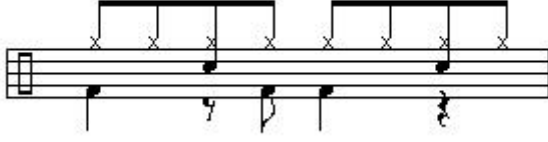
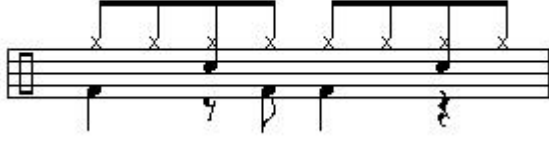
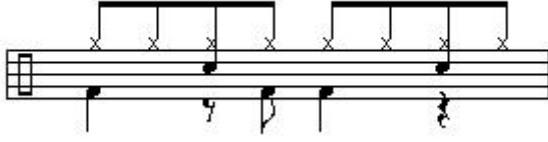
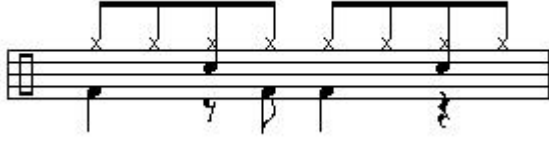
Bar 15 (time: 2 seconds)



Bar 16 (time: 2 seconds)

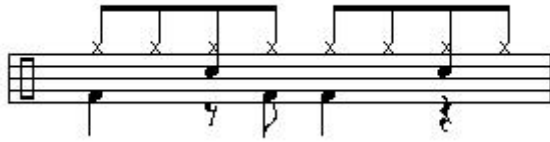


# Chorus 1 (bar 1- 8)

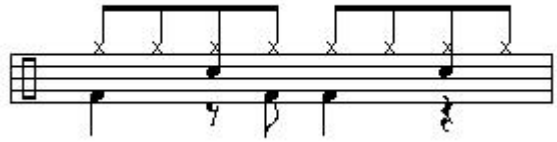
<p>Bar 1 (time: 2 seconds)</p> 	<p>Bar 2 (time: 2 seconds)</p> 
<p>.....</p>	<p>.....</p>
<p>Bar 3 (time: 2 seconds)</p> 	<p>Bar 4 (time: 2 seconds)</p> 
<p>.....</p>	<p>.....</p>
<p>Bar 5 (time: 2 seconds)</p> 	<p>Bar 6 (time: 2 seconds)</p> 
<p>.....</p>	<p>.....</p>
<p>Bar 7 (time: 2 seconds)</p> 	<p>Bar 8 (time: 2 seconds)</p> 
<p>.....</p>	<p>.....</p>

Chorus 1 extended (bar 9 - 16)

Bar 9 (time: 2 seconds)



Bar 10 (time: 2 seconds)



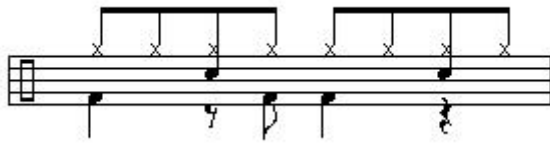
Bar 11 (time: 2 seconds)



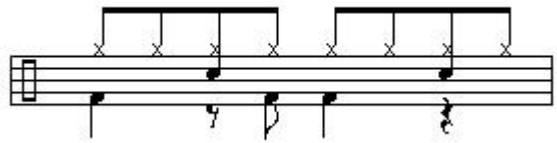
Bar 12 (time: 2 seconds)



Bar 13 (time: 2 seconds)



Bar 14 (time: 2 seconds)



Bar 15 (time: 2 seconds)



Bar 16 (time: 2 seconds)



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## References

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