Worksheet LR3: focus on time signatures

The objectives of this worksheet are:

1) You should be able to identify what type of beat is used in a time signature.
2) You should be able to group notes according to the beat type.
3) You should be able to read standard time signatures and understand what they represent.

TIME SIGNATURE NOTATION

Some of you may have seen the standard way of writing time signatures, which makes use of numbers. These are reasonably logical when dealing with **simple** time signatures, but they are rather illogical (or rather, un-musical) in compound and complex times. We will come back to that issue. For now, let's make a start on learning how the different time signatures are written. Complete the following table:

Time Signature	Beats per bar	Type of beat	Conventional notation
	4		4/4
	3		3/4
	4		4/2
	3		3/8
	2		2/4
	3		3/2
	4		4/8

As you can see, **in simple time**, crotchets are represented by the upper number 4, minims by the number 2 and quavers by the number 8. This is easy to understand and remember.

Now, in compound time, the time signature isn't as clearly written, but there is good news: at high school, there are only six compound time signatures that you have to know, so if you don't understand the way they are written, you can also just memorise them as they are and know what they represent:

Time Signature	Beats per bar	Type of beat	Conventional notation
	2		6 8
	3		9 8
	4		12 8
	2		6 4
	3		9 4
	4		12 4

As you can see, in compound time, crotchets are NOT represented by the upper number 4, minims NOT by the number 2 and quavers NOT by the number 8. Therefore, you must agree that it is very important to know whether or not we are dealing with compound or simple time!

You can easily spot a compound time signature in conventional notation because the top number will be a 6, 9 or 12.

I repeat:

If the top number is a 6, 9 or 12, then we are in compound time.

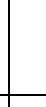
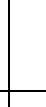
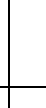
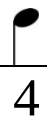
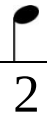
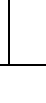
In the following table, identify whether the given time signatures are simple or compound:

$\frac{6}{8}$	compound
$\frac{3}{4}$	simple
$\frac{9}{4}$	compound
$\frac{12}{8}$	compound
$\frac{2}{8}$	simple
$\frac{4}{2}$	simple
$\frac{12}{4}$	compound
$\frac{2}{2}$	simple
$\frac{9}{8}$	compound
$\frac{3}{4}$	simple
$\frac{4}{4}$	simple
$\frac{6}{4}$	compound

As you can see, it's quite easy to spot a compound time signature because the top number will distinctively be either 6, 9 or 12.

It's important to take in all the information from the time signature in a single glance. Let's start by establishing the basics: the type of beat and how many beats comprise a bar.

Here is the same list as above, but you must fill in a little more detail this time:

Conventional	Symbolic	Beats per bar	Type of beat	Simple or Compound?
6/8	2	2		compound
3/4	3 	3		simple
9/4	3 	3		compound
12/8	4 	4		compound
2/8	2 	2		simple
4/2	4 	4		simple
12/4	4 	4		compound
2/2	2 	2		simple
9/8	3 	3		compound
3/4	3 	3		simple
4/4	4 	4		simple
6/4	2 	2		compound

The next part about time signatures takes us back to the symbolic notation. This is an aspect of time signatures called **the meter**. It is the way that musicians understand time signatures – it links an intellectual piece of theory (the time signature) with a musical feeling. The meter is the system by which musicians play music in time with each other, with the rest of the piece and with a sense of rhythmic balance.

We describe the meter always using two words. (You've seen something similar with intervals, which always have both a quality and a size.) When describing a meter, we need to know how many beats there are per bar, and into how many divisions each beat can be divided.

Typical metrical descriptions might be, for example:

$\frac{3}{4}$ is a **simple triple** time signature; whilst $\frac{12}{8}$ is **compound quadruple**

The first word will always be either simple or compound (at this stage) and the second word will be duple, triple or quadruple. We've already learned how to spot compound signatures versus simple ones and the following list explains the numeric words:

- Duple time signatures have 2 beats per bar.
- Triple time signatures have 3 beats per bar.
- Quadruple time signatures have 4 beats per bar.

This is why it links back to the symbolic notation – because that notation tells us what type of beat (simple or compound) and how many beats per bar. It actually tells us a bit more information because it specifies the type of beat (e.g. quaver, dotted crotchet, etc), but that level of detail is not required for a description of the meter.

The following are all duple time signatures (they have 2 beats per bar):

$\frac{6}{4}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{2}{2}$ $\frac{2}{8}$

(Observe how the simple signatures all have 2 at the top and the compound signatures all have 6)

The following are all triple time signatures (they have 3 beats per bar):

$\frac{3}{4}$ $\frac{9}{8}$ $\frac{9}{4}$ $\frac{3}{8}$ $\frac{3}{2}$

(Observe how the simple signatures all have 3 at the top and the compound signatures all have 9)

The following are all quadruple time signatures (they have 4 beats per bar):

$\frac{4}{4}$ $\frac{4}{2}$ $\frac{12}{8}$ $\frac{4}{8}$ $\frac{12}{4}$

(Observe how the simple signatures all have 4 at the top and the compound signatures all have 12)

Now, complete this table, using all of the new knowledge you've learned:

Conventional	Symbolic	Beats per bar	Type of beat	Meter
6/8	2 	2		compound duple
3/4	3 	3		simple triple
9/4	3 	3		compound triple
12/8	4 	4		compound quadruple
2/8	2 	2		simple duple
12/4	4 	4		compound quadruple
2/4	2 	2		simple duple
2/2	2 	2		simple duple
3/8	3 	3		simple triple
6/4	2 	2		compound duple
9/8	3 	3		compound triple
12/4	4 	4		compound quadruple
3/2	3 	3		simple triple

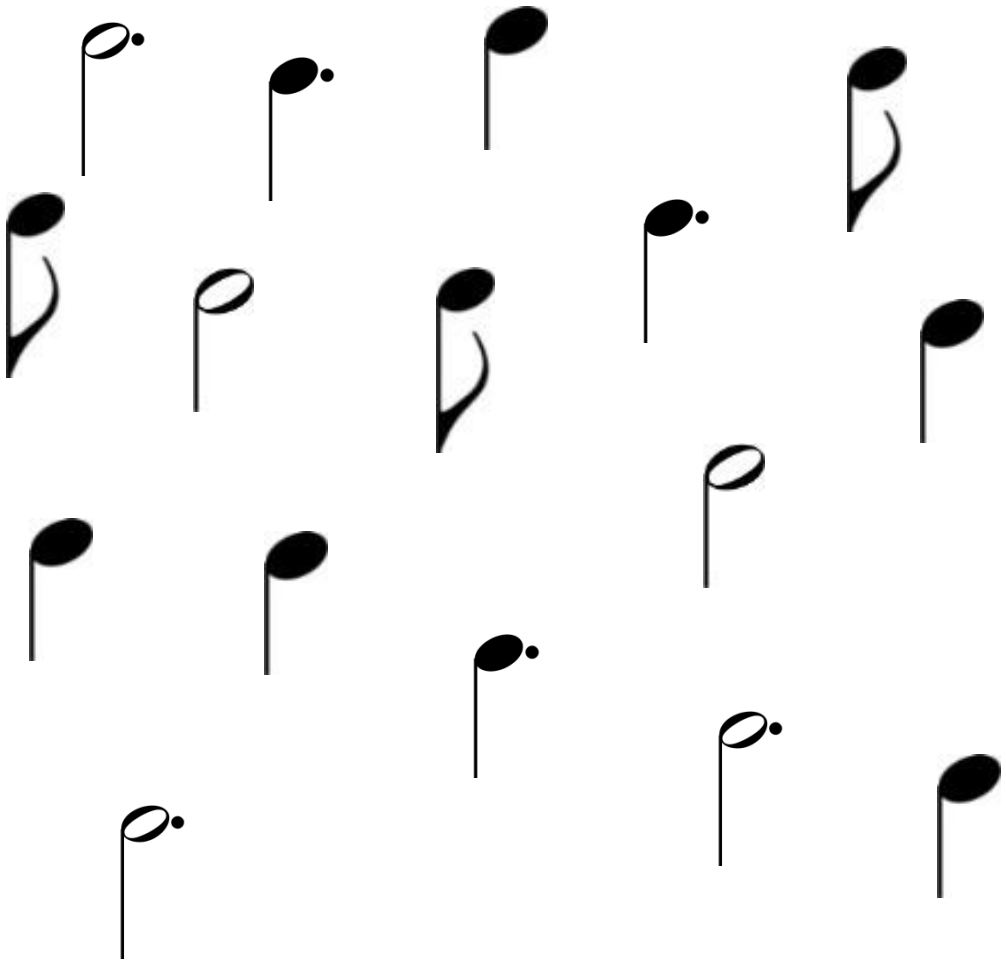
Well done! At this stage, we are able to clearly see – in a single glance – how to feel the music. This is an exciting stage for music learners because it is one of the ways that we can externalise a musical feeling/sensation. Can you think of any examples of music that you like in different meters? Here are some; some of these may surprise you!

Most Xhosa music uses compound duple time. If we were to transcribe it (write it down) in stave notation, we would be using mostly the $^{6}_{8}$ time signature. Traditional and ceremonial songs such as *ndizele amawele* and *Noyana* are rich with compound rhythms. Modern adaptations of traditional work, such as Thandiswa Mazwai's recording of *iindaba kabana na ndilahlumlenze* seem to have a fresh sound whilst at the same time retaining a strong bond with the tradition – and much of this has to do with the distinctive way that Xhosa rhythms have developed an identity. (and that identity lies in the compound duple world)

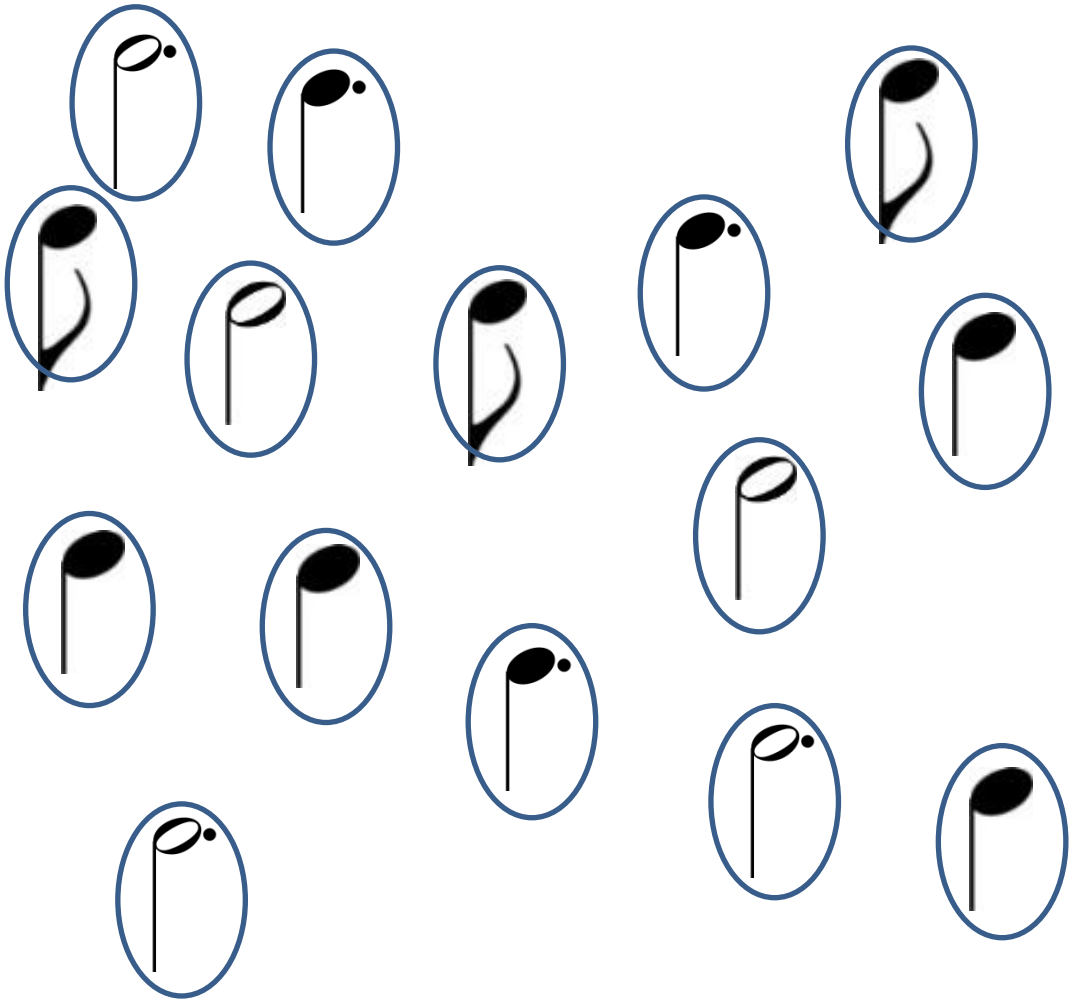
There are, of course, many examples of Xhosa music using simple time – much *isitibili* music, such as *weMarabini, wenzenjani?* and *Pikoko* use simple time, as does much of the modern music. Sadly, most pop – even on a global scale – uses the simplest of all times: $^{4}_{4}$. This is sad because, even though $^{4}_{4}$ has some fascinating rhythms and is a fantastic time in its own right, it is merely a simple quadruple meter and no more.

Let's see if you are getting the idea.

Draw a circle around any of the following notes which are **beats**:



The answer may surprise you! Have a look:



Yes – that's right! They are **all** types of beat!

Many students make the error that only crotchets are beats. This only the case some of the time, so if I can give you any advice at this stage, it is to approach time signatures in an objective manner. Always ask yourself:

- How many beats per bar?
- What is the type of beat?

In the next worksheet, we will start using this knowledge to group notes into beats and beats into bars. Until then, get used to the words that we use – compound, simple, duple, triple, quadruple, dotted beat, simple beat and so on.