



THE BUILDING BRICKS OF MUSIC

5 MINUTES READING #1

“I feel like my kind of music is a big pot of different spices. It’s a soup with all kinds of ingredients in it.”

- Abigail Washburn



Questions to think about:

1. Think about your favourite piece of music – it could be a song or a piece of instrumental music. How have the **Elements of Music** been used in your favourite piece? Can you think of some words to describe how the **Elements of Music** have been used?!
2. Can you make an “Acrostic” to help you remember the **Elements of Music**? Take the starting letters (P, T, D, D, T, T, S, A and D) and arrange them vertically in any order and make up a “catchy” or even funny saying to help you remember them.

Music is made up of many different things called **elements**. They are the **building bricks of music**. When you compose a piece of music, you use the elements of music to build it, just like a builder uses bricks to build a house. If the piece of music is to sound right, then you have to use the elements of music correctly.

What are the Elements of Music?

PITCH means the highness or lowness of the sound. Some pieces need high sounds and some need low, deep sounds. Some have sounds that are in the middle. Most pieces use a mixture of pitches.

TEMPO means the fastness or slowness of the music. Sometimes this is called the **speed** or **pace** of the music. A piece might be at a moderate tempo, or even change its tempo part-way through.

DYNAMICS means the loudness or softness of the music. Sometimes this is called the **volume**. Music often changes volume *gradually*, and goes from loud to soft or soft to loud.

DURATION means the length of each sound. Some sounds or notes are long, some are short. Sometimes composers combine long sounds with short sounds to get a good effect.

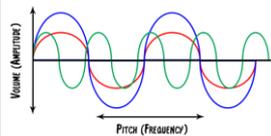
TEXTURE – if all the instruments are playing at once, the **texture** is thick. If only one instrument is playing, the texture is thin. You can build up the texture from thin to thick, or reduce it from thick to thin.

TIMBRE or **SONORITY** – every instrument has its own **tone colour**. For example, a metal instrument sounds different from a wooden one, and hitting the skin of a drum sounds different from blowing a recorder.

ARTICULATION describes how individual sounds or notes are played. Some sounds and notes may be played *smoothly* together, others may be played *spikily*, *crispily* or *detached* or some may be emphasised more than others.

SILENCE is as important as sound in music. It gives time to think and for echoes to die away. It can also be dramatic and in music is shown by “rests”.





PITCH

5 MINUTES READING #2

“Being in music forever, I have good pitch, so I know when I’m singing in or out of tune”

- John Tesh



Questions to think about:

1. How would you describe the pitch of everyday sounds? Make a list of some everyday sounds that you hear, saying whether you think the sound is high, medium or low in pitch.
2. How many **pitched** musical instruments can you name or identify? (Instruments that play notes of a definite pitch).
3. How many **unpitched** musical instruments can you identify (Instruments that do not have a definite pitch – there may be many of these type of instruments in your music room!)

Does your cat ever talk to you? Some people believe that they can understand the sounds their pets make, whether they hear the **low-pitched** purring of a well-fed cat, or a **high-pitched** angry “Meow!” The fact that one sound is pitched **low** and the other **high**, helps us distinguish one from another. Although we do not usually stop to think about it, many everyday sounds that we hear can also be described as being high or low – with, of course, many that fall somewhere in between.

In order to understand why we hear some sounds as **low pitch** and others as **high pitch**, we must understand that sound travels in **waves**. When an object vibrates, it causes the air next to it to be put under pressure and this in turn puts pressure on the air next to that. So, the change in pressure moves through the air like a “Mexican Wave”, until it meets our ears and we experience it as sound. We call these chains of pressure-changes **sound waves**. Sound waves radiate outwards from a vibrating object in all directions – invisibly and very fast.

Whether the vibrations are slow or fast has an important effect of the sounds we hear: *slow* vibrations are heard as **low pitch** sounds and *fast* vibrations are heard as **high pitch** sounds. The rate of vibration is called the **frequency**. Frequency is measured in “vibrations per second” – **low pitch** sounds have fewer vibrations per second than **high pitch** sounds.

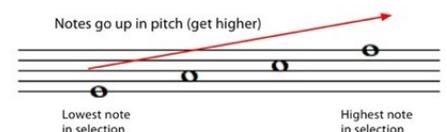
The word **pitch** is used to describe the way we experience the frequency of a sound. We hear low frequencies as **low pitched** sounds and high frequencies as **high pitch** sounds.

When writing music down, we often use the **treble clef** symbol to show notes that are to be played at **higher pitches** and the **bass clef** symbol to show notes that are to be played at **lower pitches**.

Pitched and Unpitched Sounds

Any object that vibrates with a regular frequency will produce a sound of definite pitch – a musical note. If an object vibrates with mixed or irregular frequencies, then the sound it produces will be *without* a definite pitch.

Musical instruments that play notes of definite pitch are called **pitched** instruments *e.g. piano, violins, flutes*. Musical instruments that do not have definite pitch are said to be **unpitched** and most of them are played by being hit or shaken *e.g. drums and percussion instruments*.





TEMPO AND DURATION

5 MINUTES READING #3

“Since I started composing I have always worked with series of tempos, even superimposed the music of different groups of musicians, of singers, instrumentalists who play and sing at different tempos simultaneously and then meet every now and then in the same tempo.”

- Karlheinz Stockhausen

Tempo

TEMPO means the fastness or slowness of the music. Sometimes this is called the **speed** or **pace** of the music. A piece might be at a moderate tempo, or even change its tempo part-way through.

Composers often use Italian terms to indicate the speed or **TEMPO** of their music. Some common Italian terms connected with **TEMPO** include: *Lento*, *Largo*, *Adagio*, *Andante*, *Allegro*, *Vivace* and *Presto*.

Sometimes, as well as (or instead of) a tempo marking expressed in Italian words, composers give a metronome marking. A metronome, invented by a friend of Beethoven’s called Maelzel) ticks away the number of beats to a minute at any given speed. For example:

M.M. (Maelzel’s Metronome) ♩ = 120

means there will be 120 crotchet beats per minute (or 2 per second).

Duration

DURATION means the length of each sound. Some sounds or notes are long, some are short. Sometimes composers combine long sounds with short sounds to get a good effect. The particular shape and design of a musical note symbol indicates its **DURATION** – the length of time it lasts in relation to other notes.

Some of the most common notes are given below in descending order of **DURATION** – the longest note is given at the top.

♩	Semibreve	4 beats
♪	Minim	2 beats
♫	Crotchet	1 beat
♫	Quaver	½ beat
♫	Semiquaver	¼ beat



Questions to think about:

1. What Metronome Marking (M.M.) would you give your favourite pop song? Sing this in your head and try and count the number of beats for 30 seconds and then double it to get the “M.M.”
2. Which instruments in your music classroom produce sounds or notes of **LONG DURATION**?
3. This note is longer in **DURATION** than a semibreve



Can you find out its name and how many beats it’s worth?

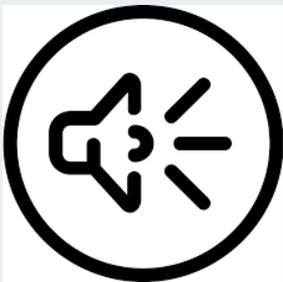


DYNAMICS

5 MINUTES READING #4

“It’ll help you be imaginative if you listen to classical music. It helps you understand dynamics and how important they are to create an environment”

- Brittany Howard



Questions to think about:

1. Make a list of 10 sounds that you hear around school, some which you may consider “musical” e.g. the school bell and others which you may consider “noise”. Put these sounds in order from what you consider to be the softest to the loudest.
2. If *pp* means “pianissimo” or very soft, what do you think *ppp* means? What about *fff*?
3. What other sounds can you think of that may approach our ‘threshold of pain’ – around 120 dB?

If you pluck a string on a violin or guitar, first gently and then more firmly, the two notes you’ll hear are the same pitch, but the second is louder than the first. Pitch depends upon the frequency of the vibrations; but volume or loudness depends upon the strength of the vibrations – *amplitude*. The more force or energy applied in starting the vibrations, the greater the amplitude and so the louder the sound.

You will sometimes hear the word **DECIBELS** mentioned in connection with the loudness of sounds in relation to each other. According to the scale of decibels, a sound measuring just 1 dB (a single decibel) is extremely soft – just loud enough to cross our ‘threshold of hearing’. A violin played quietly rates about 25 dB; a large orchestra playing at its loudest, around 100 dB. Sounds above 120 dB approach our ‘threshold of pain’ – for example, a low-flying aircraft.

Music can be loud or soft, or somewhere in between. It can change gradually or suddenly from one to the other. This is most important to all musicians and we call this aspect of “volume” – **DYNAMICS**.

Dynamic markings

In the sixteenth and seventeenth centuries, when music printing became established, Italian composers were generally regarded as the leaders of European music. For that reason, it became natural for composers to use Italian when writing down directions to performers and this practice still continues. This is why you meet the Italian words **forte (f)** (loud) and **piano (p)** (soft), letting you know what dynamics to use when playing a particular piece. Contrasts in dynamics are most often used to add to the expressive qualities of a piece of music and help set the mood of the piece.

Here are some of the dynamic directions you will meet most often and their abbreviations:

	<i>pianissimo</i>	pp	very soft
	<i>piano</i>	p	soft
	<i>mezzo piano</i>	mp	moderately soft
<small>This sign is also used to show a CRESCENDO</small>	<i>mezzo forte</i>	mf	moderately loud
	<i>forte</i>	f	loud
	<i>fortissimo</i>	ff	very loud
	<i>crescendo</i>	cresc.	gradually getting louder
<small>This sign is also used to show a DIMINUENDO</small>	<i>diminuendo</i>	dim.	gradually getting softer

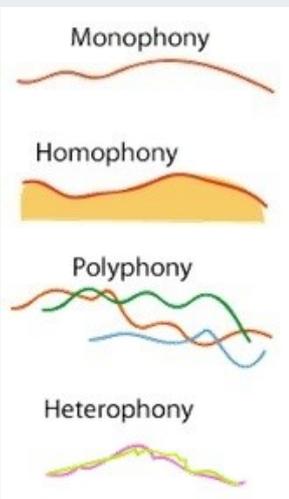


TEXTURE

5 MINUTES READING #5

“To me it’s all about textures, and that’s the side of music that I’m finding really exciting. I feel like it’s one of the only parts of music that mankind hasn’t fully discovered yet.”

- Flume



Questions to think about:

1. Can you think of any types or styles of music which have a **MONOPHONIC TEXTURE**?
2. What other examples of **ROUNDS** or **CANONS** have you sung or performed that could be examples of a **POLYPHONIC TEXTURE**?
3. Can you think of other types of World Music that create **HETEROPHONIC TEXTURES**?

Some pieces of music have a rather thin, sparse sound, perhaps producing an effect which is angular or jagged. Other pieces of music have a rather dense sound – rich, smoothly flowing, perhaps rather complicated. To describe this aspect of music we use the word **TEXTURE**, likening the way the sounds are “woven together” in a musical composition to the way in which the threads are woven in a piece of fabric. Just as you run your finger over wool, and then silk, the feel of the two materials is very different, so in two pieces of music, the “feel” of the sounds can differ. The number of parts or “layers of sound” can vary – music with a single melody line, even though there may be more than one performer or musician performing it can be described as **THIN TEXTURE**, music where there are lots of melody lines, parts or layers, often interweaving with each other and producing a complex sound can be described as **THICK TEXTURE**.

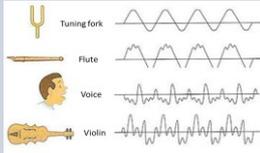
Describing Musical Textures

The simplest kind of musical texture consists of a single melody line called a **MONOPHONIC TEXTURE** or **MONOPHONY**. The single melody may be performed by one musician, or several musicians in **UNISON**.

A **HOMOPHONIC TEXTURE** or **HOMOPHONY** is created when a single melody line is heard against an accompaniment with basically the same rhythm moving in all the parts at the same time. The melody is usually, though not always, at the ‘top’ of the texture and is the most ‘important part’.

In a **POLYPHONIC TEXTURE** or **POLYPHONY**, two or more equally important melody lines weave along at the same time. Quite different melodies can be combined together, or the texture may be woven from just one musical idea. If you’ve ever sung a “Round” e.g. *London’s Burning*, where you begin at different times, then you’ve created a **POLYPHONIC TEXTURE**.

A **HETEROPHONIC TEXTURE** or **HETEROPHONY** is a kind of musical texture where everyone performs at the same time – different versions of the same melody. For instance, one voice or instrument performs a simple melody while another presents a more intricate, decorated version of it. Others may join in, presenting even more intricate versions of the melody, or perhaps a simplified version. If you’ve listened to young children singing “playground songs”, it’s likely that they’ll be singing slightly different versions of the same melody – some children will be singing slightly different notes creating a **HETEROPHONIC TEXTURE**.



TIMBRE AND SONORITY

5 MINUTES READING #6

“It was a harsh, rasping voice, in its timbre not unlike a sawmill”

- P G Wodehouse



Questions to think about:

- How many different sounds (**TIMBRES** or **SONORITIES**) can you think of making from a **CYMBAL**? Think about the many different ways it can be played and how sounds can be produced.
- Can you make a list of the instruments in your music room? Decide on different ways to group the instruments together, for example, keep all the **WOODEN** instruments in one group, the **METAL** instruments in another and the **ELECTRONIC** instruments in another.

At the fashion show, the first two models glide smoothly down the cat-walk. He is wearing a green suit with a yellow tie, while she has on a long swirling evening dress in matching colours. Minutes later they are back, but this time you would hardly recognise them. He is wearing the padded jersey of an American football player and she has cycling shorts and a T-shirt. It’s the same two people but they make an entirely different impression as they bounce along to some lively music.

Just as a person may look changed in new clothes, the same note played first on a violin and then on a piano will sound very different. What makes this difference? It is because each instrument or voice has a distinct and recognisable quality of sound – known as the tone-colour, **TIMBRE** or **SONORITY**. The characteristic **TIMBRE** or **SONORITY** of a trumpet makes it possible for us to tell the difference between a trumpet and a violin.

Several factors account for the distinctive **TIMBRE** or **SONORITY** of an instrument including the materials from which it is made, the way it produces its sounds and the way in which these sounds are made to resonate (e.g. the hollow wooden body of a violin). The distinctive **TIMBRE** or **SONORITY** of each instrument can change according to the way it is played. Composers love to use these different kinds of sounds, in order to make their music as interesting and expressive as possible.

The Orchestra

One way that composers control and vary the **TIMBRE** or **SONORITY** of their music is by using combinations of different instruments – which can then be used separately, all together, or in different combinations. Depending on what instruments are used, and the style of music played, such a collection of instruments may be called a *band* or *ensemble* – or, if it is large enough, an *orchestra*. Voices also have different **TIMBRES** or **SONORITIES** – women’s voices *sound different* to men’s voices – they have a different **TIMBRE**.

Describing TIMBRE and SONORITY

There are lots of different words which can be used to describe a particular **TIMBRE** or **SONORITY**. Here are a range of descriptive words which are frequently used when describing an instrument or a sound’s **TIMBRE** or **SONORITY**: *blustery, flat, grating, hoarse, muted, thin, whiny, brassy, dull, full, hollow, nasal, sharp, smooth, sweet, tinkly, clinky, gruff, husky, pure, rich, shrill, squeaky, tinny, wooden, metallic, scratchy* – there are many more!

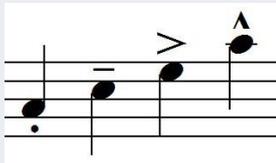


ARTICULATION

5 MINUTES READING #7

“I thought of Gene Krupa’s drumming, his staccato drumming. I went and put ‘Misirlou’ to that rhythm.”

- Dick Dale



Questions to think about:

1. Can you think about any other instruments, from the orchestra or in your music room where you could perform a **GLISSANDO** on?
2. What type of music or songs would be suitable performed with **LEGATO** articulation?
3. Distortion is one of a number of “FX’s” which guitarists use when performing. Can you think of any others?

When you listen to music, you hear changes in tempo, rhythm and in the character of the sound. For instance, does the musician hit a series of notes loudly and then back off or begin softly and build up to a large sound?

Musicians know where and when to make such changes because of **ARTICULATION**.

ARTICULATION in music refers to how specific notes or passages are played or sung – how smoothly or ‘spikily’ something is played.

Composers and arrangers provide articulation directions in the form of written notation, symbols placed above or below notes. Some articulation, like **ARCO** - bowing (using the bow of a stringed instrument to play a note) or **PIZZICATO** – plucking the strings with the fingers instead of using the bow are exclusive to specific instruments – here stringed instruments – brass and woodwind players would never see these **ARTICULATION** markings on their music!

The word **LEGATO** (Italian for ‘linked together’), means played smoothly. Notes are joined by curving lines. The word **STACCATO** (Italian for ‘detached’), means played short and sharp, and is indicated by dots above or below the note. Notice the **LEGATO** and **STACCATO ARTICULATION** markings in the music below.



Sometimes a composer wants certain notes to “stand out” or be emphasised more than others. Here, they would use an **ACCENT** (>) placed above the note to indicate to the performer to place more emphasis on this particular note. Another way of doing this is using a dynamic marking – **SFORZANDO** (*sfz*) or (*sf*) on certain notes.

If you rapidly run your finger from the very lowest note up to the highest note of a piano or keyboard as fast as possible and making sure each note sounds, you’re performing a **GLISSANDO** – which gives a continuous slide upwards (or downwards) between notes and is another form of **ARTICULATION**.

ARTICULATION also features in popular music. Guitarists often use **DISTORTION** to give a rough, fuzzy or harsh sound. Drummers often use a **RIM SHOT** playing on the metal rim and the skin of a drum at the same time, making a smacking sound and even a **DRUM ROLL** is a form of **ARTICULATION**.