Musical Pathways

By Julio Albertos

ESO 2nd Guide to Music

Name .....

Group .....

Music Teacher .....

My lessons are on ...

Day	Hour

	Unit One	Unit Two	Unit Three	Unit Four	Unit Five	Unit Six	Unit Seven	Unit Eight
Exam Mark								

My Target Tracker

During each unit your teacher will set you at target that will help you to improve your work. Use this page to make a log of your targets so that you can refer back to them when preparing next ones.

Date:	Unit 1 - Sound and Silence	Self Assessment Mark:
My Targets:		
Date:	Unit 2 – Beat it	S/A Mark:
My Targets:		
Date:	Unit 3 – Noting the Notes	S/A Mark:
My Targets:		
Date:	Unit 4 – Sweet Melodies	S/A Mark:
My Targets:		
Date:	Unit 5 – Harmony and Friends	S/A Mark:
My Targets:		
Date:	Unit 6 – Musical Forms	S/A Mark:
My Targets:		
Date:	Unit 7 – A World of Instruments	S/A Mark:
My Targets:		
Date:	Unit 8 – Let's Vocalize	
My Targets:		S/A Mark

Welcome to Bilingual 2nd Music

This booklet now belongs to you and it is your passport to get a better understanding of music!

Each week you will complete the pages either during the lesson or as homework and your teacher will use this booklet to assess your work, so keep it safe at all times.

Here is a list of the units that you will be studying:

1. Sound and Silence
2. Beat it
3. Noting the Notes
4. Sweet Melodies
5. Harmony and Friends
6. Musical Forms
7. A World of Instruments
8. Let´s Vocalize

Within each unit you will be developing a lot of skills, look out for a box like this as it will tell you what personal, learning and thinking skills you are using.

Creative Thinking

- **You are creating your own musical idea!**

PERSONAL, LEARNING AND THINKING SKILLS

***Independent Enquirer**: allows pupils to access information from different sources, analyse information and evaluate how important it is, before reasoning out ideas to make the best decision.*

***Effective Participator**: allows pupils to get involved with your local community, understand and respect the religious and cultural diversity that exists there and learn to be aware of the growing presence of technology.*

***Creative Thinker**: allows pupils to be resourceful, apply information they already know to new tasks, be enterprising and think of new ways to complete a task and synthesise by using information from different sources to create something new.*

***Team Worker**: allows pupils to relate effectively to each other, know how to take on roles within a team, coach others to make progress and lead example.*

***Reflective Learner**: allows pupils to be responsible for their learning, be resilient even when situations are difficult, know how to manage their feelings and emotions and manage their own learning by being self-reliant.*

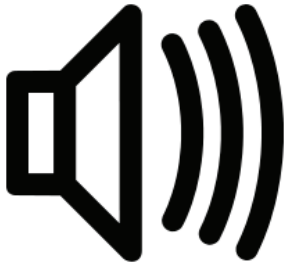
***Self-Manager**: allows pupils to manage time and organise their tasks to meet deadlines, manage change and adapt positively to new situations, manage risks by being aware of potential problems and manage their success and failure by reflecting on their experiences and not being afraid to make mistakes.*

Self Assessment

You will also complete a self assessment task at the end of each unit. Compare it with the mark you have reached in the exams. When you know your examination mark you will fill in the grid on the front cover.

I would like to give many thanks to Catarina Canadinha and Ignacio Delgado for their revisions and corrections, and to Paloma Carrasco for her Unit 8 contribution.

Sound and Silence



In this first unit we will work on the material base of music.

· **Acoustics** is the study of sound.

• All sounds are waves produced by vibrating objects - tuning forks, vocal cords, reeds, lips, columns of air, strings, cricket legs, ...

Demo

Listen to different materials and instruments: cymbals, strings, pipes, ...

To Start With ... Basic Vocabulary

Acoustic pollution	**Echo**	**Duration** (long/short)
Dynamics	**Frequency**	**Intensity** (loud/soft)
Noise	**Pitch** (low/high)	**Propagation**
Reverberation	**Silence**	**Sound waves**
Sound	**Timbre**	**Vibration**

Exercise 1: Gap-fill

Complete the sentences using the words in the chart above:

a) People living in the city center complain about _____ _____ at weekends.

b) _____, please. You are in a hospital.

c) Please be quiet. There is too much _____ in the room.

d) Don't repeat everything I say. You sound like my _____.

e) Your voice _____ is very nice. You could be a radio announcer!

1. Sound, noise and silence

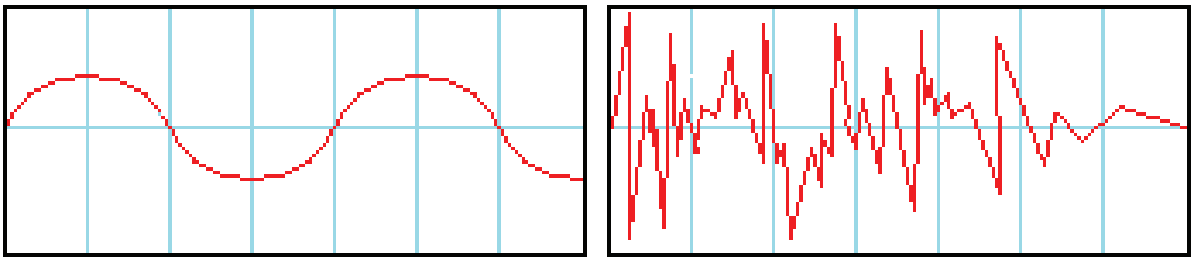
Some interesting definitions…

Essentially, music is sound. **SOUND** is produced when an object vibrates and it is what can be perceived by a living organism through its sense of hearing. It travels through physical media by sound waves and it is normally a pleasant feeling.

NOISE is commonly defined as a disagreeable auditory experience, but this is a subjective definition (for instance, most of the percussion instruments produce noises and they produce agreeable sounds when they are played). Anyway, the physical difference between sound and noise is the sort of waves: sound waves are regular and in a noise the wave is irregular (look at the picture below).

Finally, **SILENCE** is the absence of sound or noise.

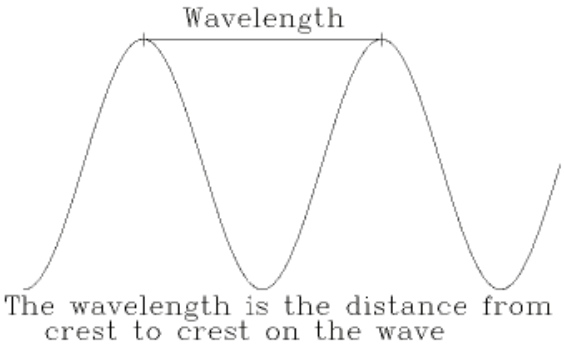
Difference between musical sound and noise

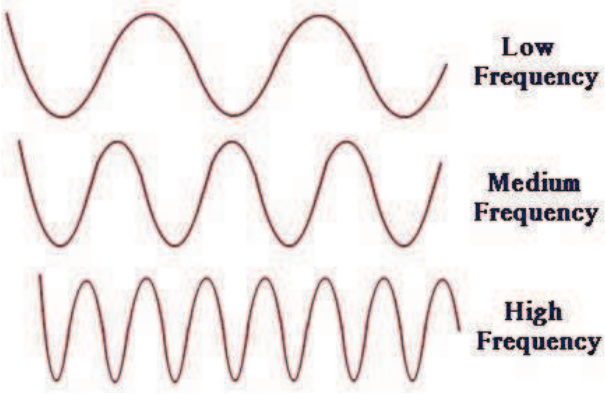


Musical Note Sound Wave

Noise Sound Wave

Wavelength and wavelength frequencies





Speed of Sound

The speed of propagation of sound depends on physical medium:

Air	**340 m/s**
Water	**1400 m/s**
Steel	**5000 m/s**
Vacuum	**0 m/s**

Exercise 2: True or false

Ready to answer the questions? Have a try! If you don't know the answer, ask your teacher.

1.- Sound is a form of energy.
True/False

2.- Sound travels in _____.
a) waves b) streams c) rivers

3.- Sometimes you can feel sounds on your body (by the vibration).
True/False

4.- Sound waves must travel to the _____ to be heard.
a) brain b) ear c) heart

5.- Noise is unwanted sound.
True/False Why?

6.- Damage occurs when sounds are very
a) high b) loud c) long

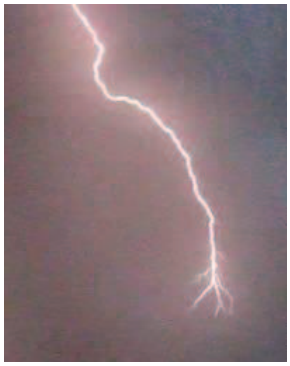
Creative Thinking
- *You are exploring your own knowledge and making connections*

Exercise 3: Group discussion

Considering everything you have learned, what do you think about the following ideas? Discuss in groups.

"Silence, an impossible treasure?"
I agree because …
I don't agree because …

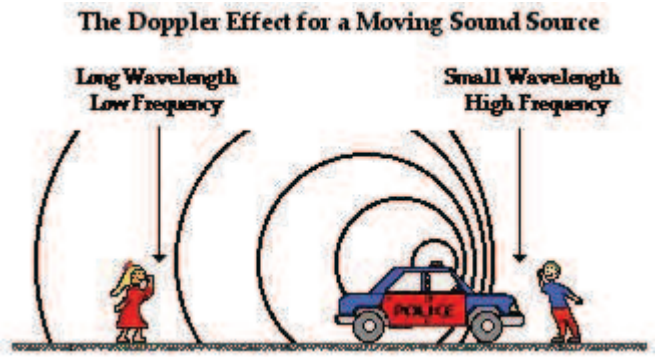
"Acoustic pollution:
A real problem?"
I think it is…
I think it isn't…



Speed of Sound vs. Speed of Light

Sound = 343 m/s
Light = 300,000 km/s = 300,000,000 m/s

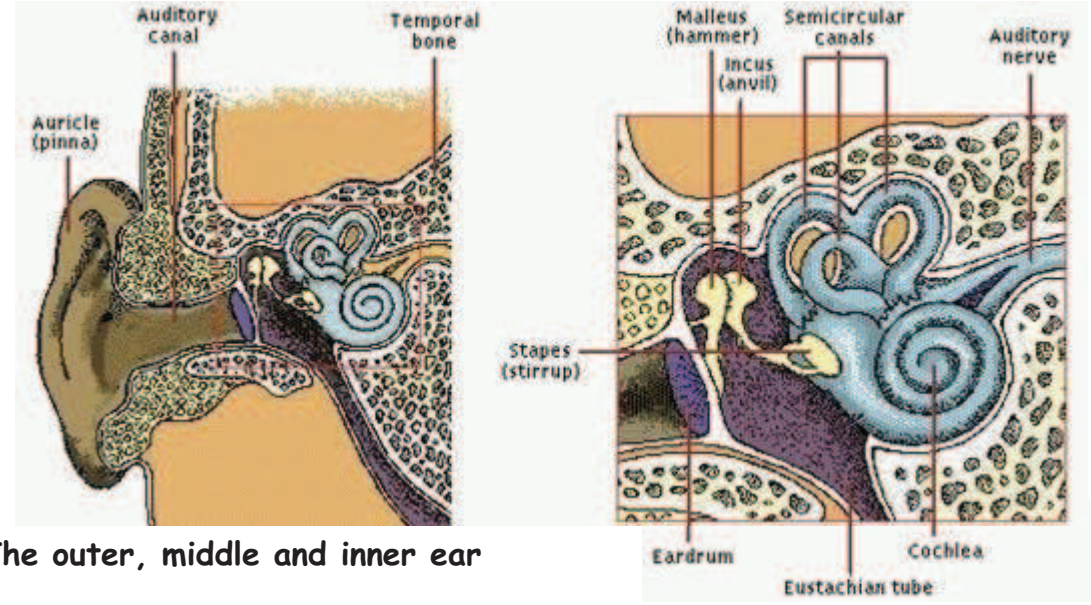
• Light reaches you in an extremely short period of time.
• Sound reaches you at a much slower rate. It takes about 3 seconds to travel 1 kilometer. The sound is detected by your ear after the light is detected by your eye, so sound is heard after light is seen.



Doppler Effect is the change in frequency of a wave (or other periodic event) for an observer moving relative to its source. It is commonly heard when a vehicle sounding a siren approaches, passes, and recedes from a point.

The way we hear (path sound)

Sound waves enter through the outer ear from the air and then sound waves move through the ear canal. Sound waves strike the eardrum, causing it to vibrate, then vibrations enter the middle ear. Vibrations go through the hammer, anvil and stirrup up to a vibrating membrane which transmits them to the inner ear and into the cochlea. Nerve cells detect vibrations and convert them to electrical impulses. These are transmitted to the brain. Then the brain interprets electrical impulses as sound and represents the image of the object that produced the sound.

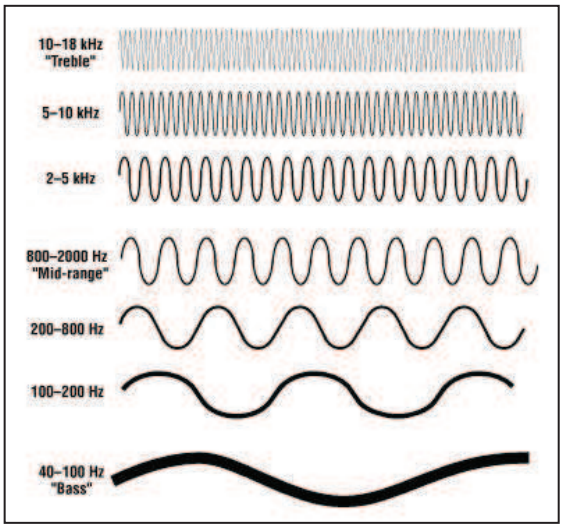


The outer, middle and inner ear

2. Properties of sound

There are 4 basic properties:

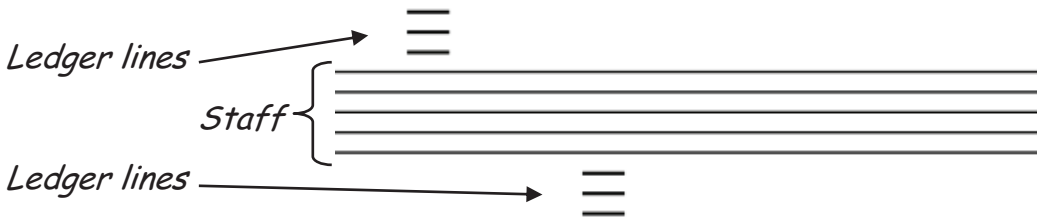
PITCH (Hz) Low sound/High sound
DURATION (Sec.) Short sound/Long sound
INTENSITY (dB) Soft sound/Loud sound
TIMBRE (Tone Color) What source?



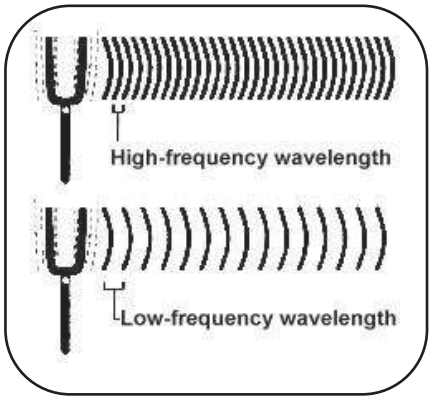
PITCH

This is the sound´s property that tells us the difference between a high sound and a low sound.

To represent the pitch we use the staff and the notes. The **staff** (plural staves) is written as five horizontal parallel lines. Most of the musical notes are placed on one of these lines or in a space between lines. Extra **ledger lines** (or leger lines) may be added to show a note that is too high or too low to be on the staff.



Vibration of tuning forks



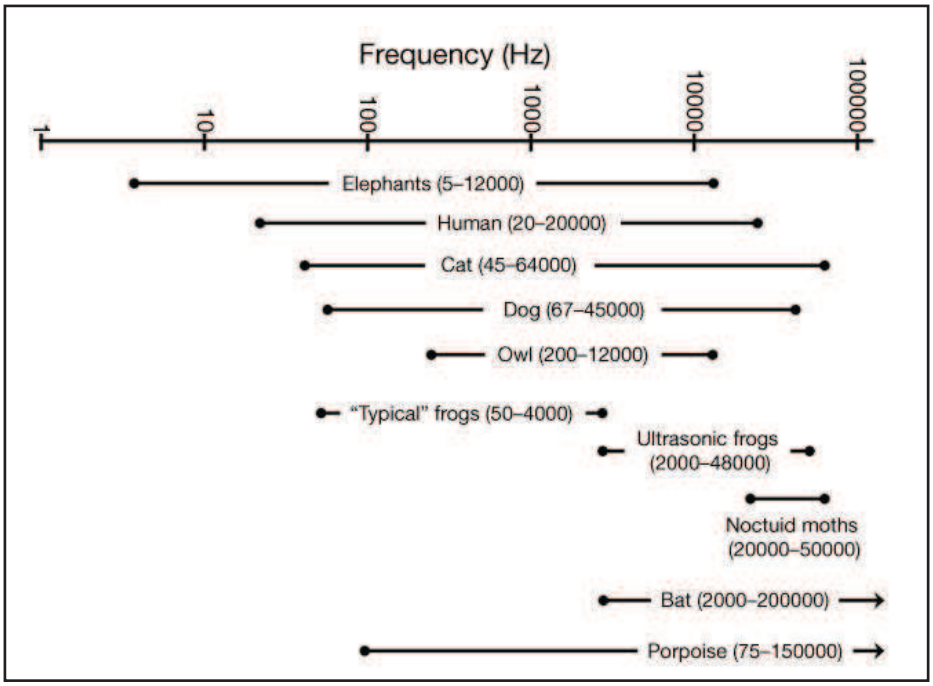
Frequency of musical notes (in Hertzs)

- Low C is 256 Hz
- Middle C is 512 Hz
- High C is 1024 Hz
- Frequency is double in each octave.
- Tuning fork in A = 440 Hz

In next unit, we will learn about notes which represent pitches in music.

Frequency limits

• The pitch is determined by the frequency of the sound. The unit is hertz (Hz), which is the number of vibrations per second.
• Humans hear from 20 to 20,000 Hz. Any sound below 20 Hz is called *infrasound,* and above 20,000 Hz is called *ultrasound*.



Range of sound frequencies that can be detected by a variety of living creatures

Many animal species have a more audible range than human beings. Even dogs and cats hear much better!!

While the siren of an emergency vehicle may be irritating but tolerable to most people, it can be painful to animals, especially dogs.

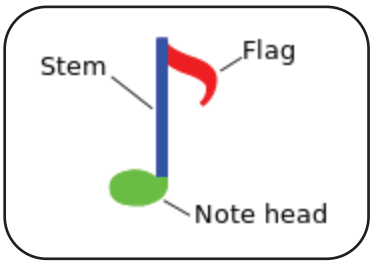
Exercise 4: Find out, using the Internet, the audible range of different animal species.

Turtle _____
Dolphin _____
Sparrow _____
Chimpanzee _____
Rabbit _____
Mouse _____
Snake _____
Whale _____
_____ _____

DURATION

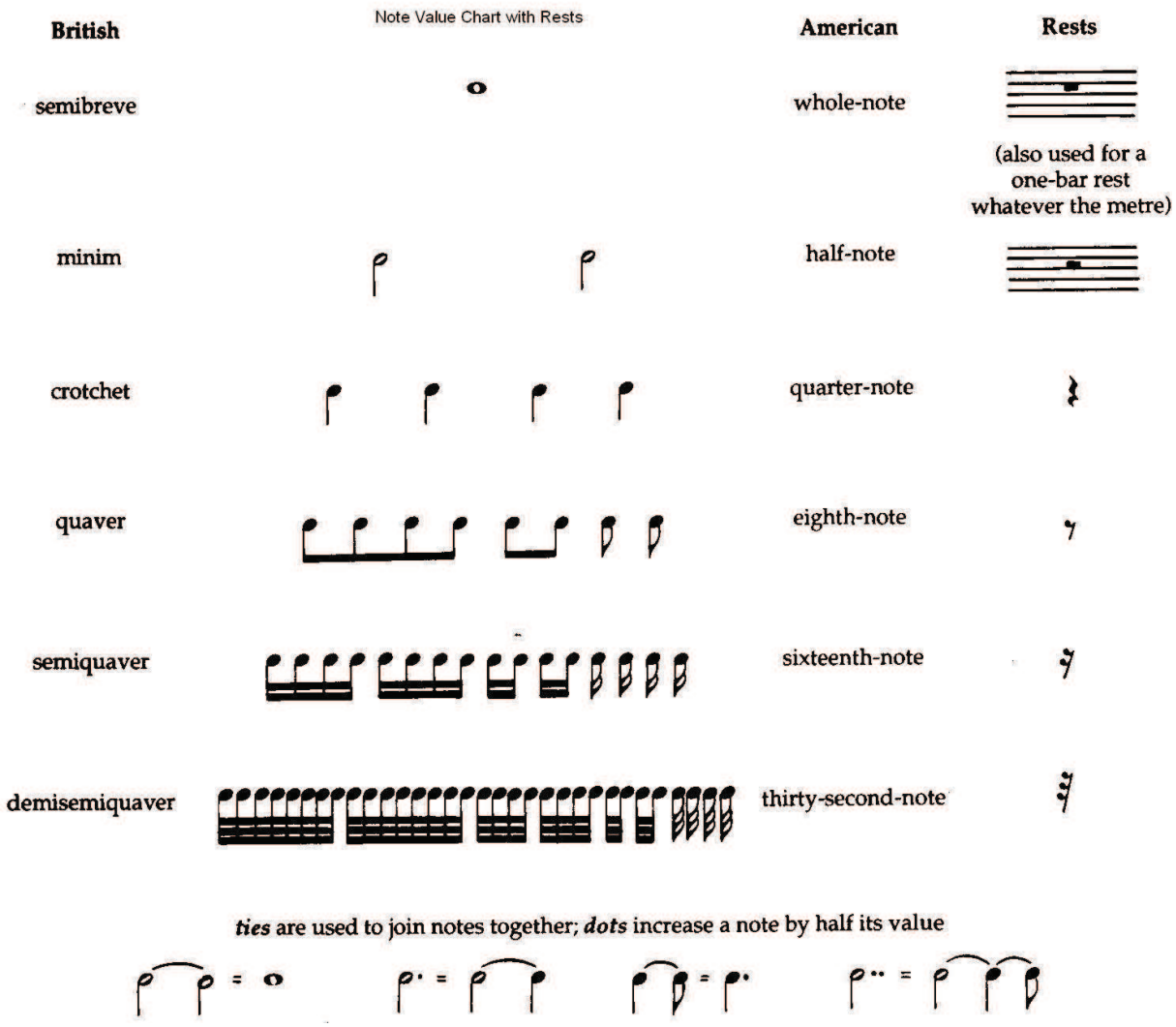
This is the sound's property that tells us the difference between a short sound and a long sound. The duration of a sound is indicated using several symbols. In standard notation, a single musical sound is written as a note value.

Parts of a note value



All of the parts of a written note affect how long it lasts. Duration (or length) can be measured in seconds, minutes, hours, but for music purposes it has no worth. Duration is assigned to relative musical values.

Note Values



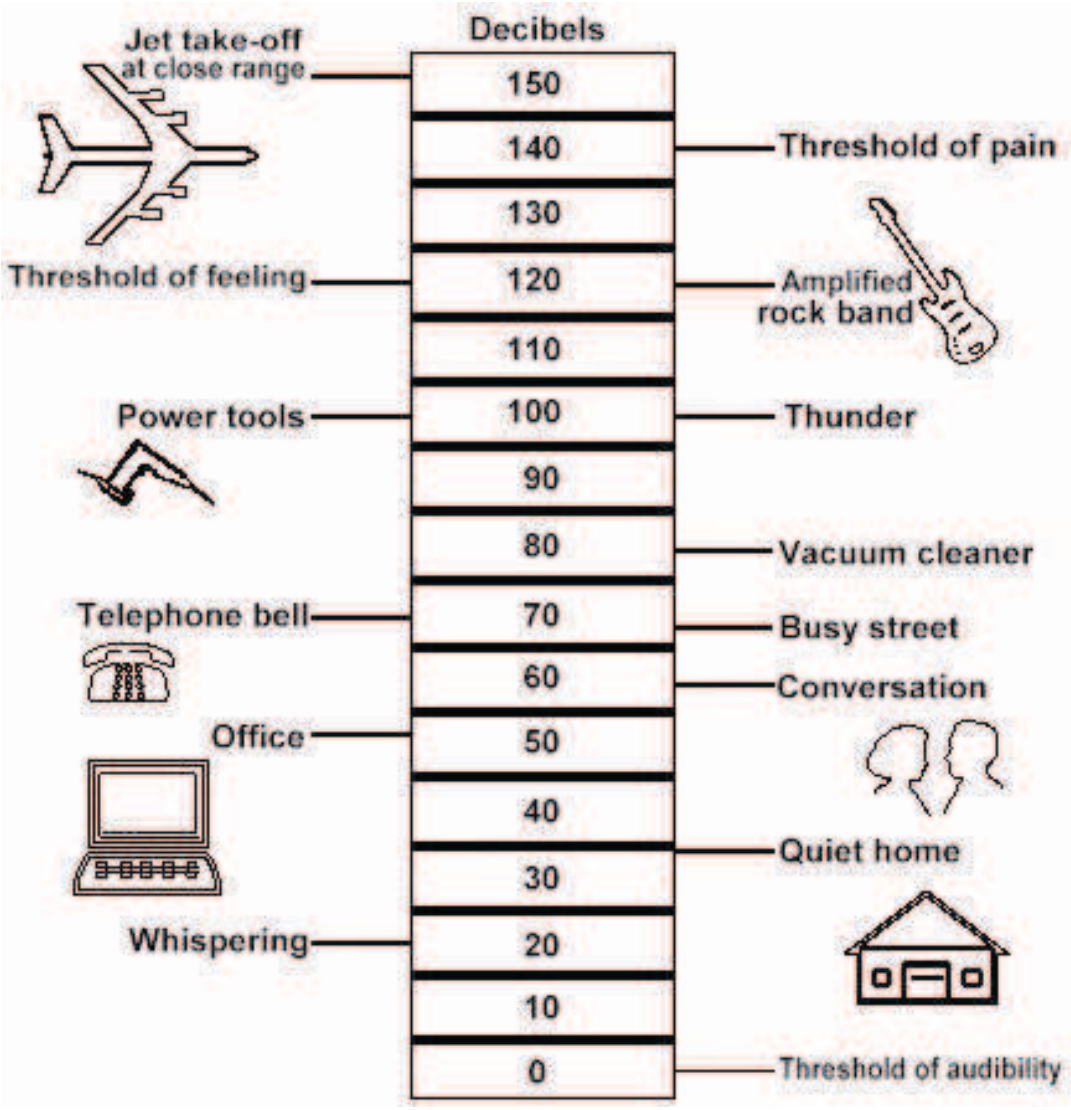
INTENSITY

Loudness of Sound

• How loud a sound seems is determined by the wave's amplitude. This is proportional to its energy.

• For an increase in 10 dB, the energy is ten times greater.

Loudness in Sound Decibels



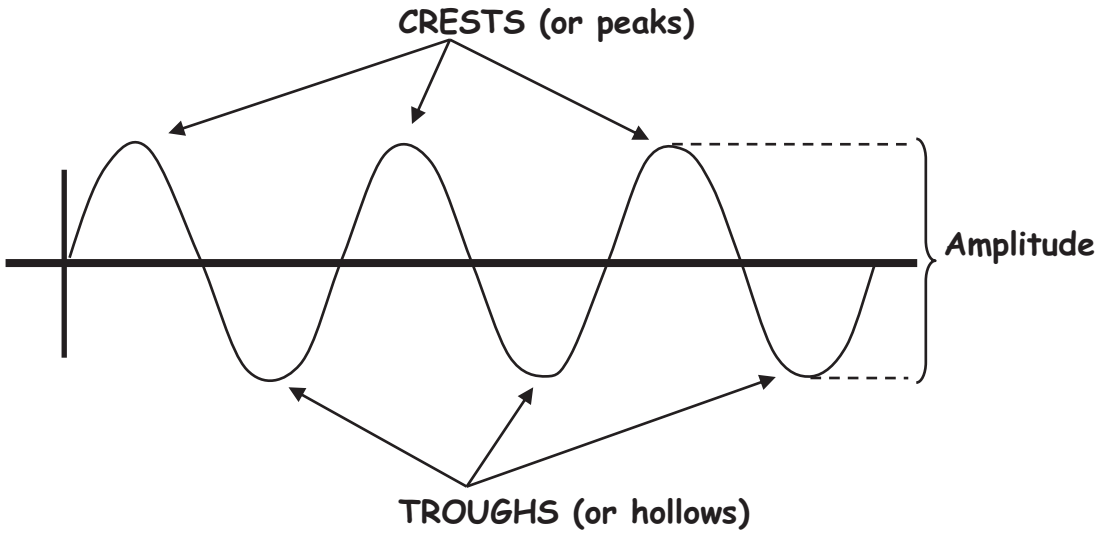
Essential Vocabulary

Threshold: *a level or point at which something starts or ceases to happen or come into effect.*

Intensity, commonly understood as volume, it is the sound's property that tells us the difference between a **loud** sound and a **soft** sound without regarding to its frequency. More formally, it is defined as "that attribute of auditory sensation in terms of which sounds can be ordered on a scale extending from quiet to loud." In Physics it is represented by amplitude, while in music, intensity values are called Dynamics.

*Please, don´t mix up **intensity** terms with those of **pitch**: **soft** or **loud** are related to intensity whereas **low** or **high** are terms related to pitch.*

Amplitude: On an oscilloscope screen, amplitude is represented by the distance between the highest point and the lowest point of the waveform (from the crest to the trough). Amplitude has a direct impact on how loud the sound is; the higher the crests and the deeper the troughs, the greater the amplitude and the louder the sound.



Hearing care

The more amplitude the louder the sound: being overexposed to loud sounds for extended periods of time may have fatal consequences. For instance, listening through headphones all day long at a high volume, or staying in noisy environments with no ear protection can result in lifelong and permanent hearing loss.

Most MP3 players today can produce sounds up to 120 decibels, equivalent to a sound level at a rock concert. At that level, hearing loss can occur after only about an hour and 15 minutes.

Physicians are warning: *"people should only use MP3 devices at levels up to 60% of the maximum volume for a total of 60 minutes a day".*

Exercise 5: Gap-fill

a) Pitch is a property of sound that tells us the difference between a _____ sound and a _____ sound.

b) _____ is a cyclic sound pressure wave with a frequency greater than the upper limit of human _____ (20,000 Hz).

c) Infrasound is sound that is lower in _____ than 20 Hz (Hertz) or cycles per second, the "normal" limit of human hearing.

d) Duration in music is represented by _____ _____.

e) Intensity is a property of sound that tells us the difference between a _____ sound and a _____ sound.

f) The _____ of pain is the point at which pain begins to be felt. It occurs in the ear approximately at a level of _____ dB.

Exercise 6: Complete the table below by searching information

Sound	Decibels
Hearing threshold	0
Rustle of leaves	
Whispering	
Library	
Secondary class (it should be)	
Office	
Conversation	
Busy street	70
Vacuum cleaner	
Rock concert	120
Threshold of pain	

Exercise 7: Answer the question

What is the physicians' recommendation to avoid hearing loss?

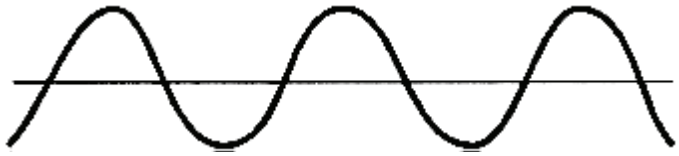
_____

_____

TIMBRE: The Tone "Color"

One of the basic elements of music is called color, or timbre. Timbre describes all of the aspects of a musical sound that do not have anything to do with the sound's pitch, loudness, or length. In other words, if a flute plays a note, and then an oboe plays the same note, for the same length of time, at the same loudness, you can say that the only difference in this: a flute sounds different from an oboe. This difference is in the timbre of the sounds. Timbre is caused by the fact that each note from a musical instrument is a complex wave containing more than one frequency. For instruments that produce notes with a clear and specific pitch, the secondary frequencies that are involved in the sound are called harmonics. The human ear and brain are capable of hearing and appreciating very small variations in timbre.

On an oscilloscope screen, timbre is represented by the shape of the repeated curve. If the shapes of two sound waveforms are different, the sounds differ.



A very smooth waveform shape is called a sine waveform. It represents a sound like a note played on a tuning fork.

A violin waveform is quite complex and looks nothing like the sine waveform. This waveform complexity may be perceived as a more "nasal" or "whiny" sound quality.

If a waveform does not repeat, the sound is usually perceived by the human ear as a hiss. Noise is perceived as "hiss"; it is similar to the sound of the wind or a fan.

Definition: Timbre is a property of sound which allows us to identify the object that produces the sound.

End of Unit Assessment

I have really enjoyed....

The thing I found the most challenging was...

For the next unit I must try to...

Teacher Comments:

Reflective Thinker:

- *You are evaluating your progress and looking for areas of improvement.*

Definitions & Vocabulary

Beat it

Identify and label the **hand percussion instruments** below. Be careful to spell each word correctly!

If you would like, you could research the origins of some instruments for homework. Try looking on the Wikipedia!

1. 

2. 

3. 

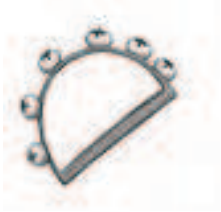
4. 

5. 

6. 

7. 

8. 

9. 

10. 

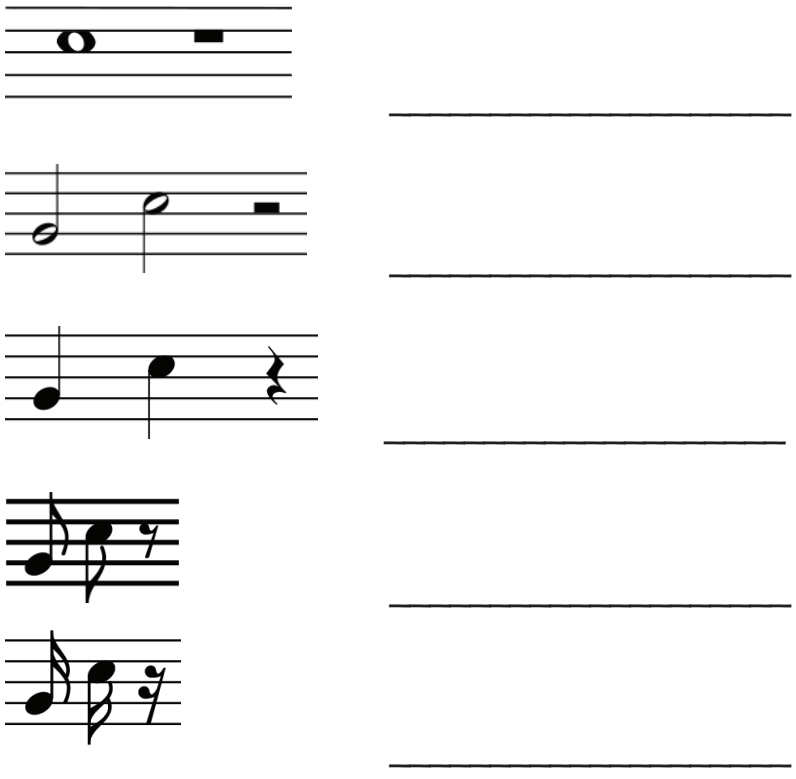
Note Values

Write the name of the note values below:

_____ _____ _____ _____ _____ (British)

_____ _____ _____ _____ _____ (American)

A rest indicates a silence of an equivalent duration.



Rest exercise

Draw your own combination of note values and rests in the space below.
(4 beats in a bar.)

Dicey Beats

Creative Thinking

- *You are exploring an idea and creating your own rhythm.*

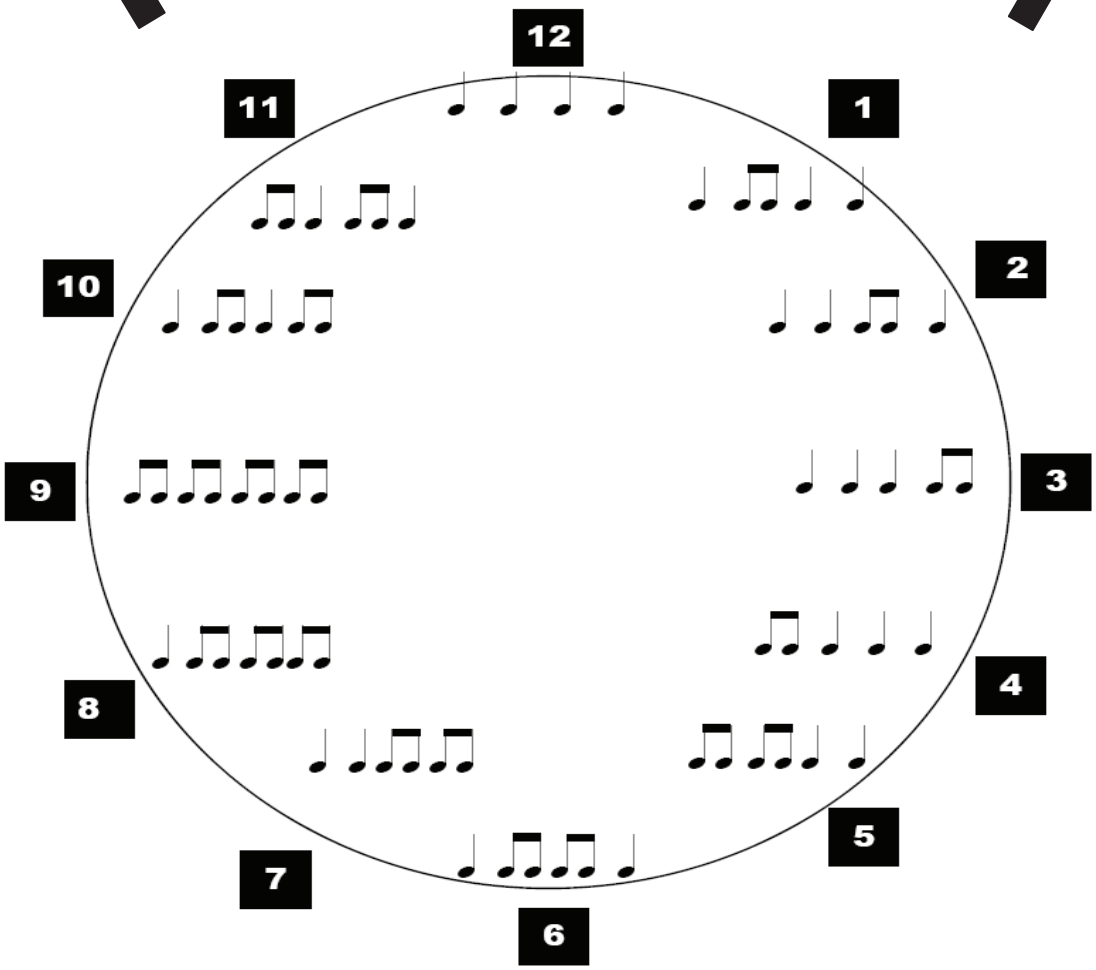
Roll the dice twice; write both numbers in the left column then add them together to find the third number. Now use the rhythm clock on next page to translate this sum into musical notation. Do it again and create another sequence.

Number	Rhythm
+ =	intro rhythm clock outro
+ =	intro rhythm clock outro

Now clap each rhythm in turn, use the ideas below to create your composition.

First, clap one rhythm in unison as a group;
Second, try to perform two different rhythms at the same time as a pair;
Thirdly, consider structuring your composition by adding an intro and an outro.

Rhythm



Clock

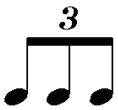
Effective Participator - Find solutions

- *You can break up a problem into manageable tasks.*

Matching Rhythm

Match the note values with the written names ...

Two crotchets



Two quavers

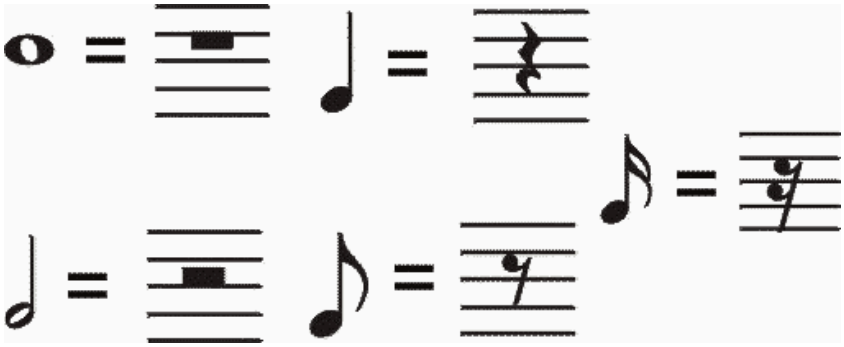
Triplet quavers

Four Semi-quavers

One semibreve

Two minims

Reminder (rest equivalencies)

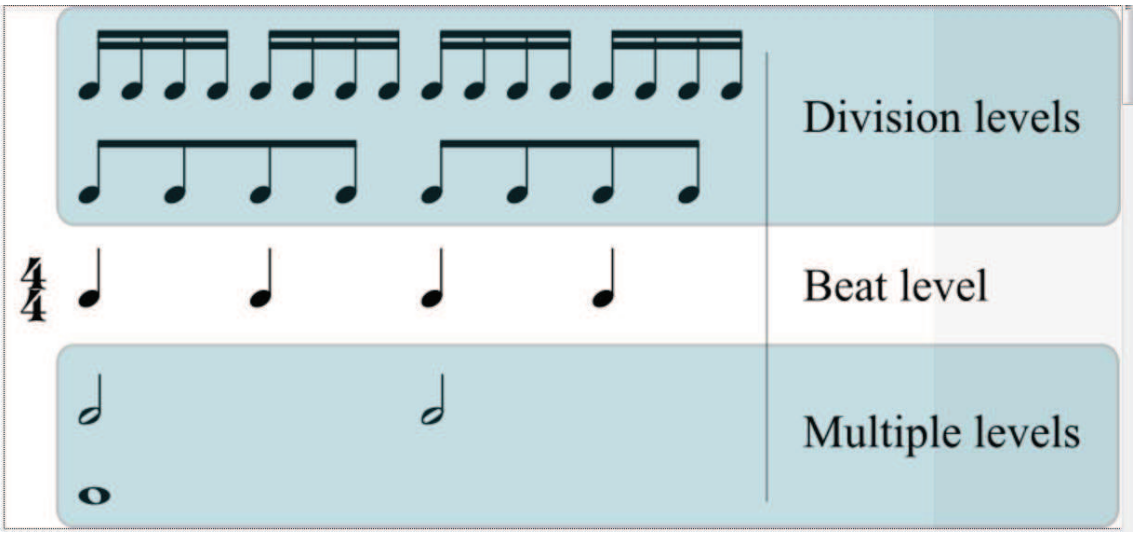


Rhythm Patterns

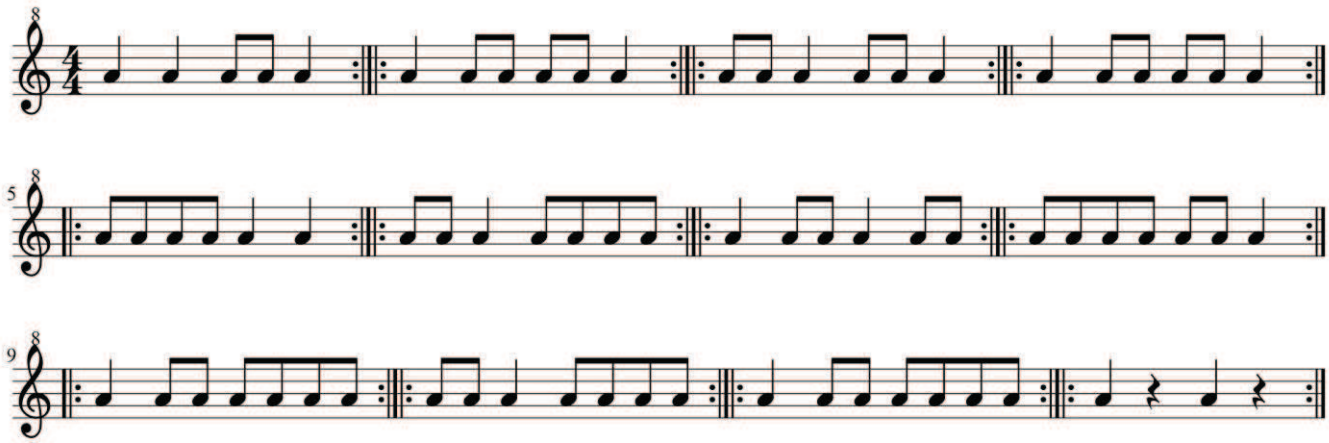
Rhythm is any combination of different durations (sounds and silences). Usually it has a regular pattern.

The ***beat*** is the basic unit of time in music, the pulse of the *mensural level (beat level).*

Rhythm in music is characterized by a repeating sequence of stressed and unstressed beats (often called "strong" and "weak") and divided into bars organized by time signature and tempo indications.



Rhythm Exercises 1



Vocabulary

Bar

Beat (pulse)

Rhythm pattern

Stressed note

Time signatures

Subdivided by two

4 3 2

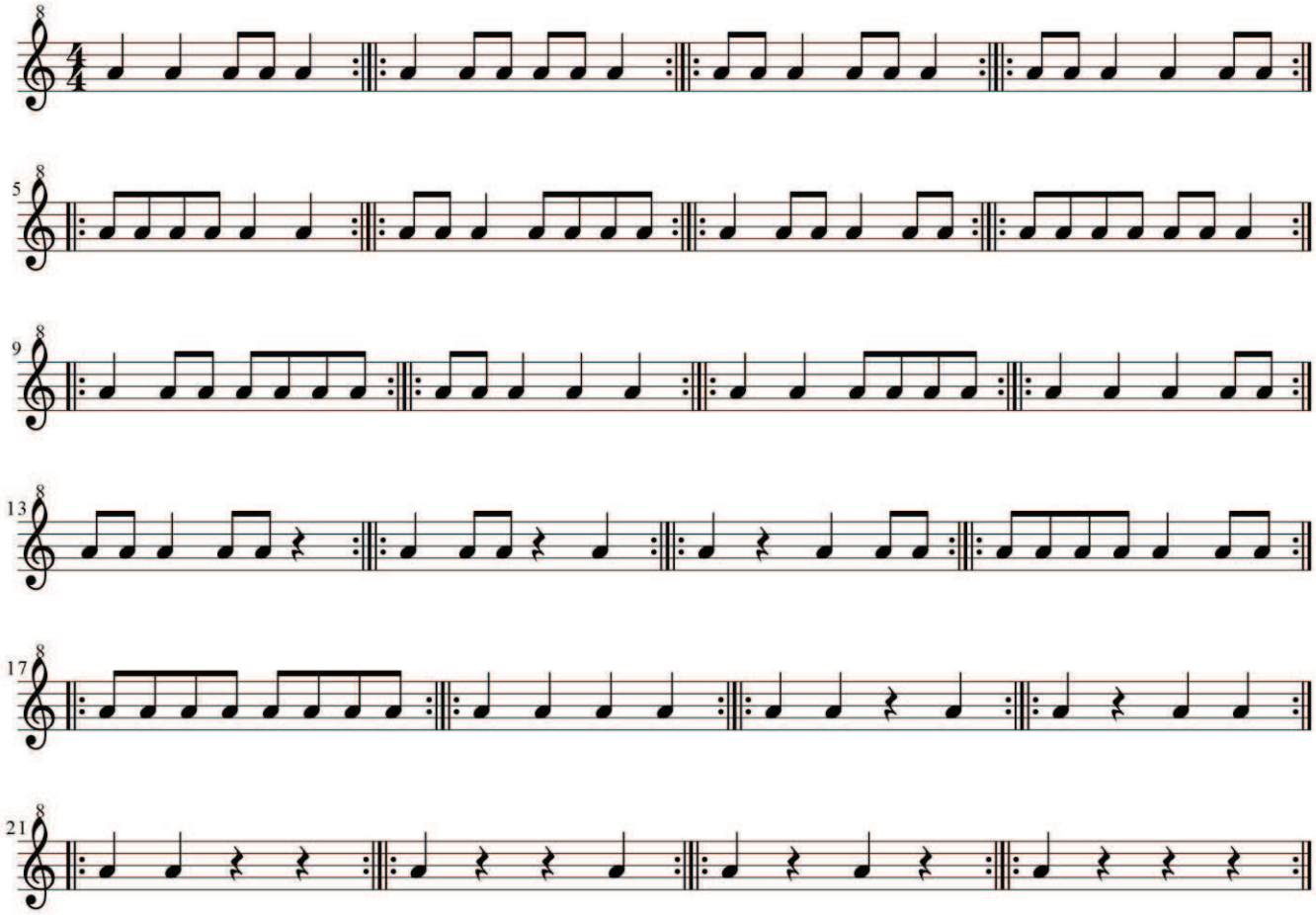
4 4 4

Subdivided by three

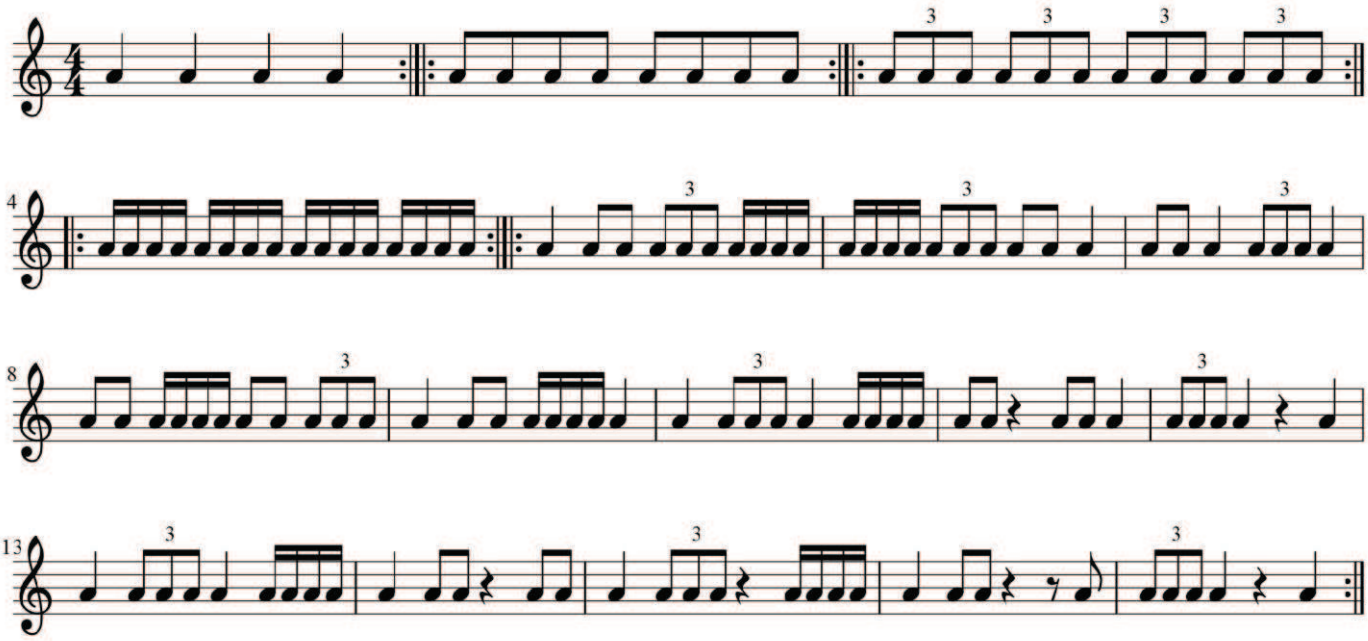
12 9 6

8 8 8

Rhythm Exercises 2



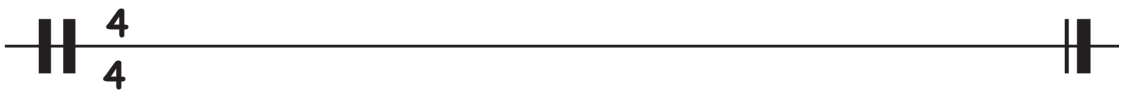
Rhythm Exercises 3



Now try to create your four beat rhythm pattern from previous exercises, into musical notation on the rhythm staff below.

Example,

My Rhythm Pattern



Now clap the rhythms you have created!

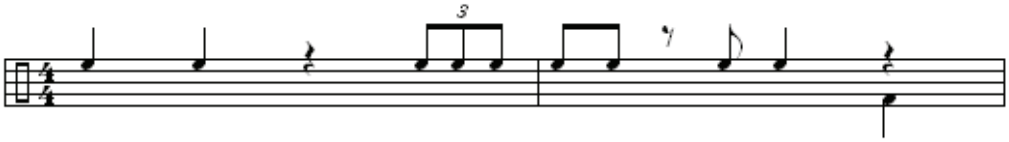
Try to listen to your partners when you are doing these rhythm exercises. Synchronicity matters!!

BATUCADA (SAMBA BATUCADA)

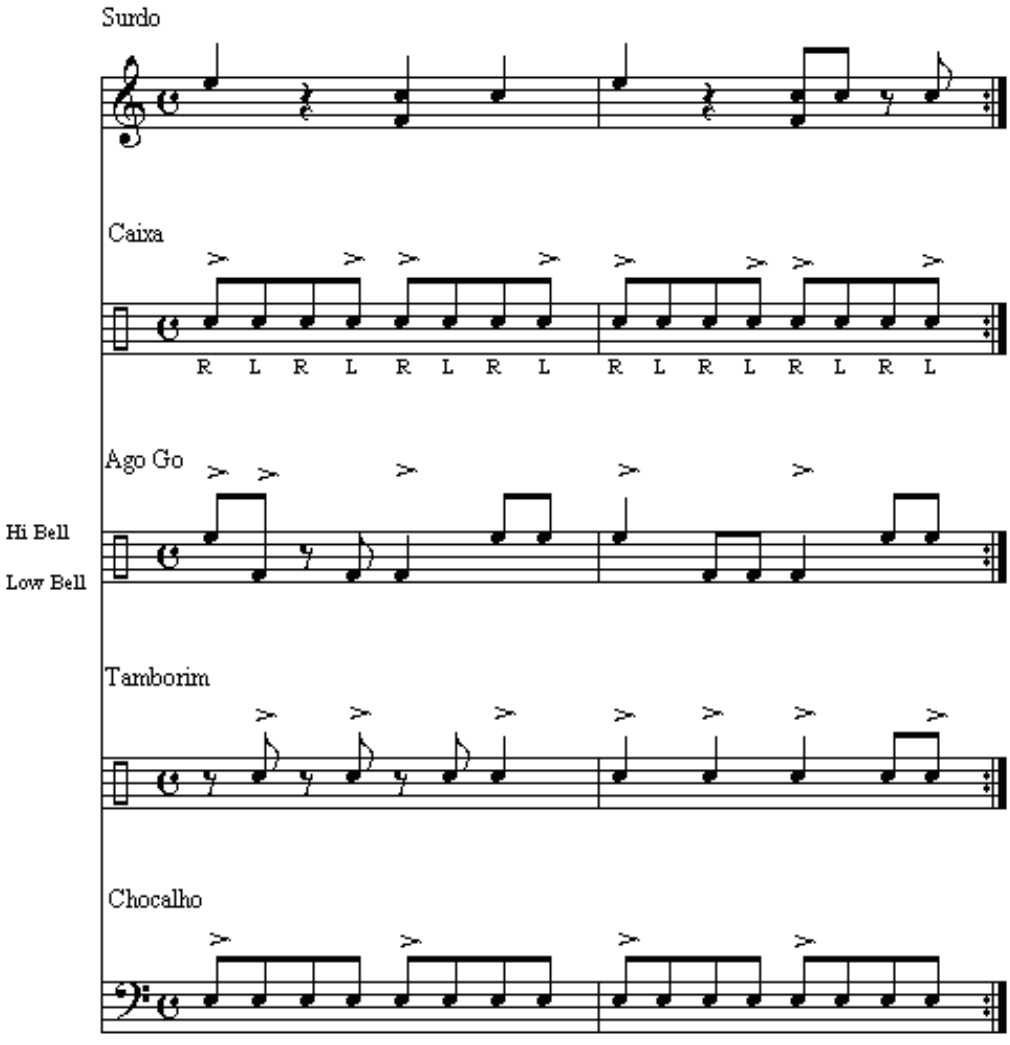
The word Batucada (stemming from the West African dance "Batuque") refers to the percussion rhythms of street Samba from *Carnaval* in Rio de Janeiro and is short for "Samba Batucada" (Samba played only on percussion instruments). Sometimes used synonymously with the word "Samba", it is made up of the specific rhythms played on the various percussion instruments within the bateria: *repenique, surdo, caixa, agogó, tamborim, pandeiro, cuica, and chocalho*.

Batucada rhythms start around ♩= 170

Intro:



Bateria:



Body Percussion

Match actions with body parts (there could be more than one for each!)

Slap	Hands
Clap	Fingers
Click/Snap	Feet
Tap	Chest
Knock	Thighs
Stomp	Head
Hit	Knuckles

Let's watch a couple of videos and later on we will have a try on body percussion!!

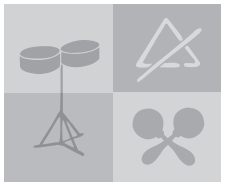
Symphony of Palms: http://www.youtube.com/watch?v=B-nnnsEnr_s

Hambone: http://www.youtube.com/watch?v=cnrlzc39edM

Stomp: http://www.youtube.com/watch?v=nI5vWIcFxvw

And now, it´s your turn for clapping, stomping, clicking, tapping, knocking, hitting, ...

Layered Composition

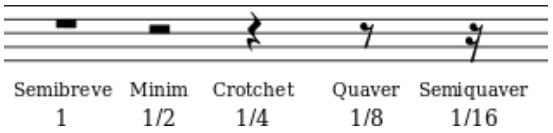


Team Worker

- *You are working with others, discussing ideas so that you all achieve the same goal*

With your group create a four part rhythm composition. Write the rhythms on the staves below.
You can use ideas from previous pages as a starting point.

Don´t forget to include some rests:



Pit Stop Reflections

Peer Evaluation

One particular performer impressed me because...

They have made their performance interesting by...

To improve their work further, I suggest that.....

When I compare their performance to my own I think that...

Comments made about my performance

My targets for improvement are:

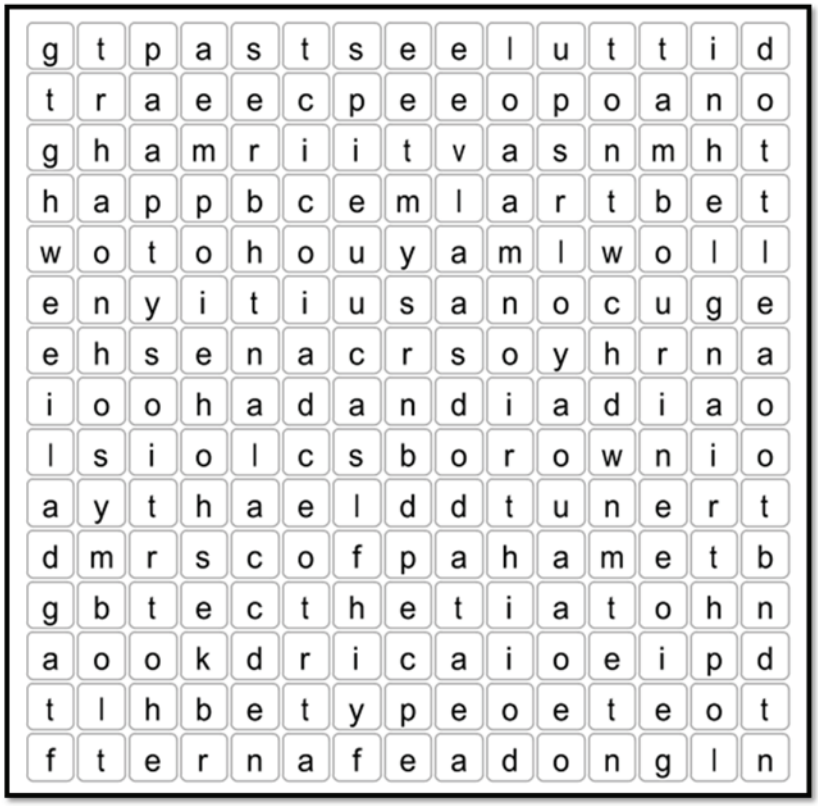
-
-
-

Effective Participator

- *You are identifying improvements that will help others.*

Crosswords

claves
dynamics
graphic notation
maracas
percussion
pitch
symbol
tambour drum
tambourine
tempo
triangle
woodblock



g	t	p	a	s	t	s	e	e	l	u	t	t	i	d
t	r	a	e	e	c	p	e	e	o	p	o	a	n	o
g	h	a	m	r	i	i	t	v	a	s	n	m	h	t
h	a	p	p	b	c	e	m	l	a	r	t	b	e	t
w	o	t	o	h	o	u	y	a	m	l	w	o	l	l
e	n	y	i	t	i	u	s	a	n	o	c	u	g	e
e	h	s	e	n	a	c	r	s	o	y	h	r	n	a
i	o	o	h	a	d	a	n	d	i	a	d	i	a	o
l	s	i	o	l	c	s	b	o	r	o	w	n	i	o
a	y	t	h	a	e	l	d	d	t	u	n	e	r	t
d	m	r	s	c	o	f	p	a	h	a	m	e	t	b
g	b	t	e	c	t	h	e	t	i	a	t	o	h	n
a	o	o	k	d	r	i	c	a	i	o	e	i	p	d
t	l	h	b	e	t	y	p	e	o	e	t	e	o	t
f	t	e	r	n	a	f	e	a	d	o	n	g	l	n

Body Percussion Practice (Performance)

Number 1 = clap
Number 2 = stomp your feet
Number 3 = slap your lap
Number 4 = snap your fingers
Number 5 = silence

1	2	3	4	5
5	4	3	2	1
2	1	3	5	4
3	1	2	4	5

End of Unit Assessment

I have really enjoyed....

The thing I found the most challenging was...

For the next unit I must try to...

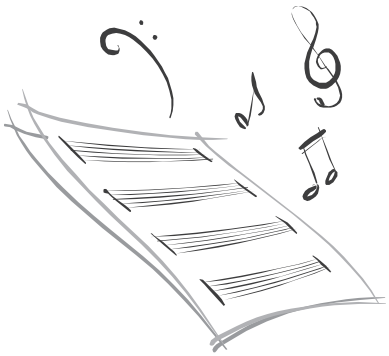
Teacher Comments:

Reflective Thinker:

- *You are evaluating your progress and looking for areas of improvement.*

Definitions & Vocabulary

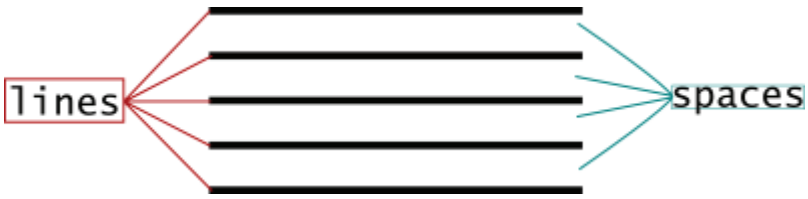
Noting the Notes



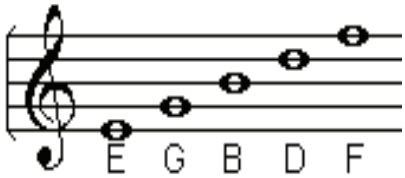
This unit is about Musical Notation

The Staff is where notes are written down...

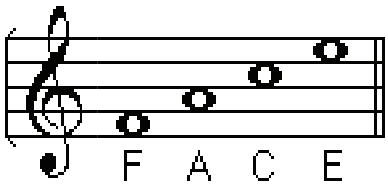
... and it is a set of five horizontal lines and four spaces that each represent a different musical pitch.



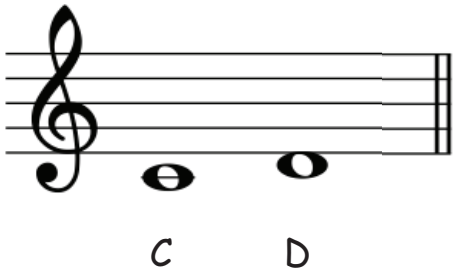
Try and memorize the sayings that help you remember the notes.



Notes on a line.... Every Good Boy Does Fine



Notes in a space... Spell the word F A C E



Notes below the staff... CD

Creative Thinker – Make links

- *You make connections and links*

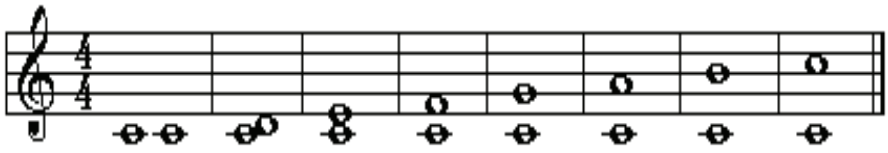
Musical Story

One day my _____ and I took a _____ and went to visit my uncle _____.
He lived on a farm so I had a fresh _____ for lunch. My uncle asked
me, "would you like a _____ to take home?" "Bleah" I replied.
"I'd rather be _____ than eat _____!" "Oh well, never mind.
How about some honey from my _____ hive instead?" As we went to
collect the honey my cousin, _____, appeared. She is really annoying
and talks all the time. Sometimes I wish that I could _____ her! She
was carrying a _____. "What's in there?" I asked. "Oh nothing much",
she said. "Please tell me", I _____. "It is a kitten and I found it by
the side of the road", she said excitedly. We took the kitten to my
_____ and since it didn't seem to have a home he said we could keep
her. It had been a great day and in the evening my new kitten and I
went to _____ tired, but very happy!

Intervals

An interval is the distance between two notes.

Starting with the bottom note as 1, count up step by step until you reach the top note; this will give you the interval.



U 2nd 3rd 4th 5th 6th 7th 8ve

When two notes are at the same pitch this is called

U_____.

When two notes are the same but at a different pitch this is called an

O_____.

Which ones sound best?

Using the table below tick the intervals that you think sound the best.

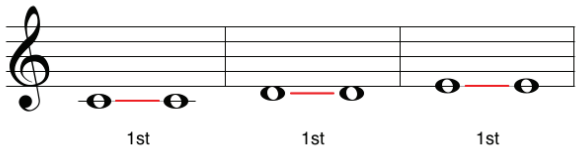
Intervals Above	2nd	3rd	4th	5th	6th	7th	8th
Intervals Below	2nd	3rd	4th	5th	6th	7th	8th

Independent Inquirer - Reach conclusions

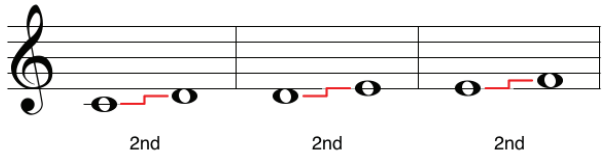
- *You reach balanced and focused conclusions.*

Generic intervals

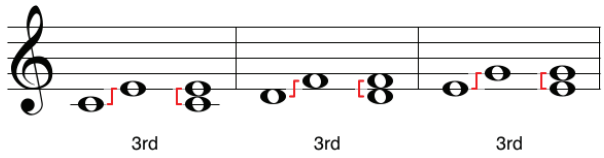
When two notes occupy the same line or space they are a **first** (or a prime) apart:

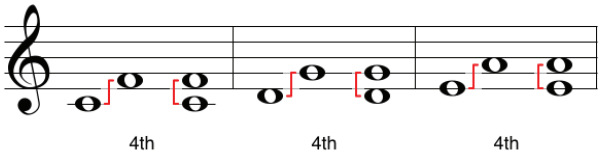


As the notes become further apart, the interval type increases, in **seconds**:

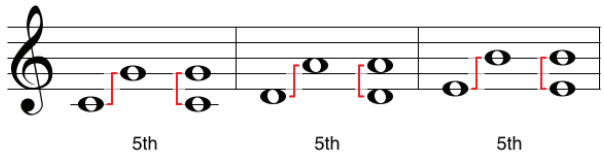


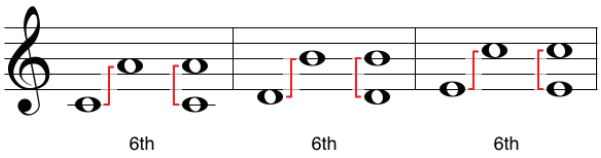
Thirds and **fourths**:



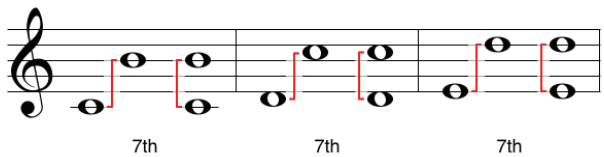


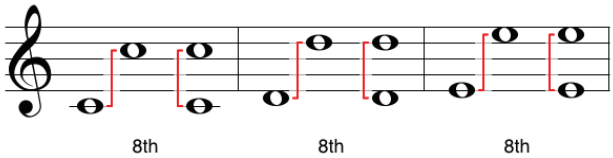
Fifths and **sixths**:



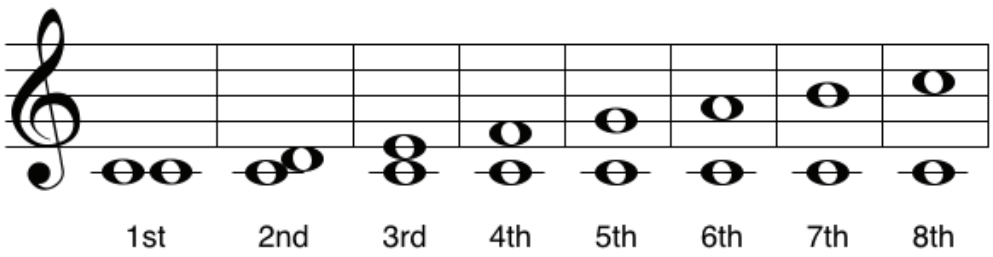


Sevenths and **eighths**:





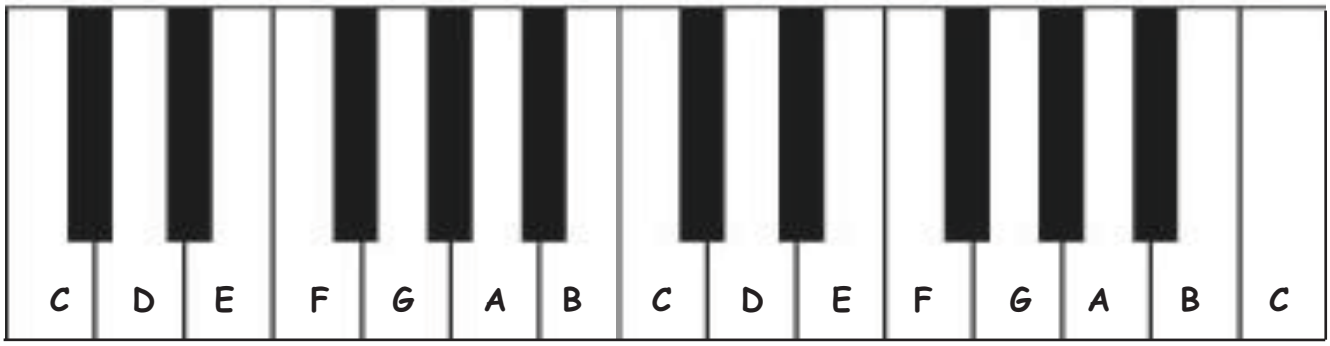
- Remember to use this chart to reference all the **generic intervals**:



The Keyboard

Keys on the keyboard have a pattern of organization.

Two black keys / Three black keys / Two black keys / Three black keys... and so on.



The first one before the group of two black keys is always **C**.

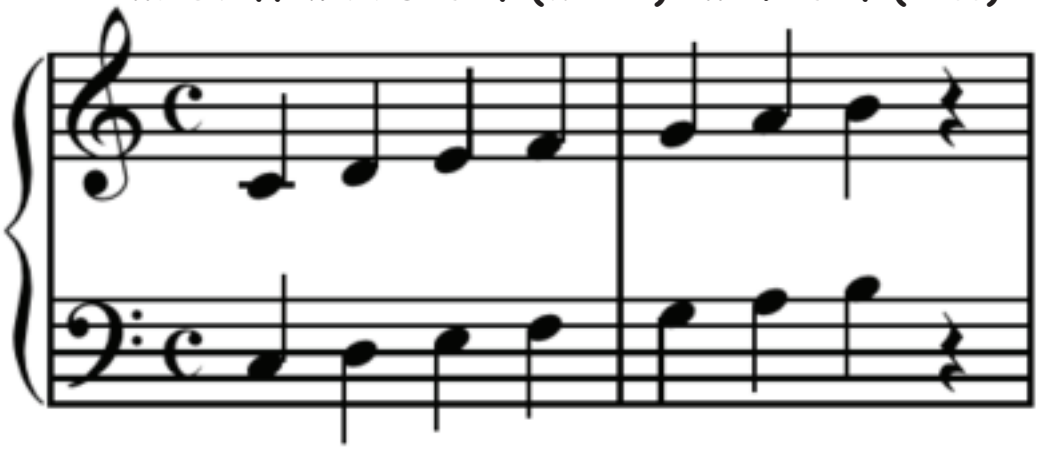
And now some tough practice: recognizing notes on the keyboard.

We are going to look through an amazing music theory website! Look at it and choose the English version:

www.teoria.com

Click on... (1) Tutorials
Click on... (2) Reading Music
Click on... (3) Reading musical notes (sidebar)
Click on... (4) Clef Reading exercise (bottom of the page) to begin!!!

Piano Staff with G-clef (treble) and F-clef (bass)



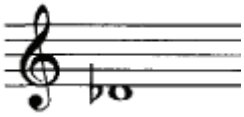
Sharps and Flats

In musical notation there are many symbols used that tell a musician what and how to play.

Today you will learn about two particular symbols:

Flat … ♭ (↓ 1 semitone) and **Sharp** … ♯ (↑ 1 semitone)

A flat or sharp symbol will appear <u>before</u> a note on the stave…

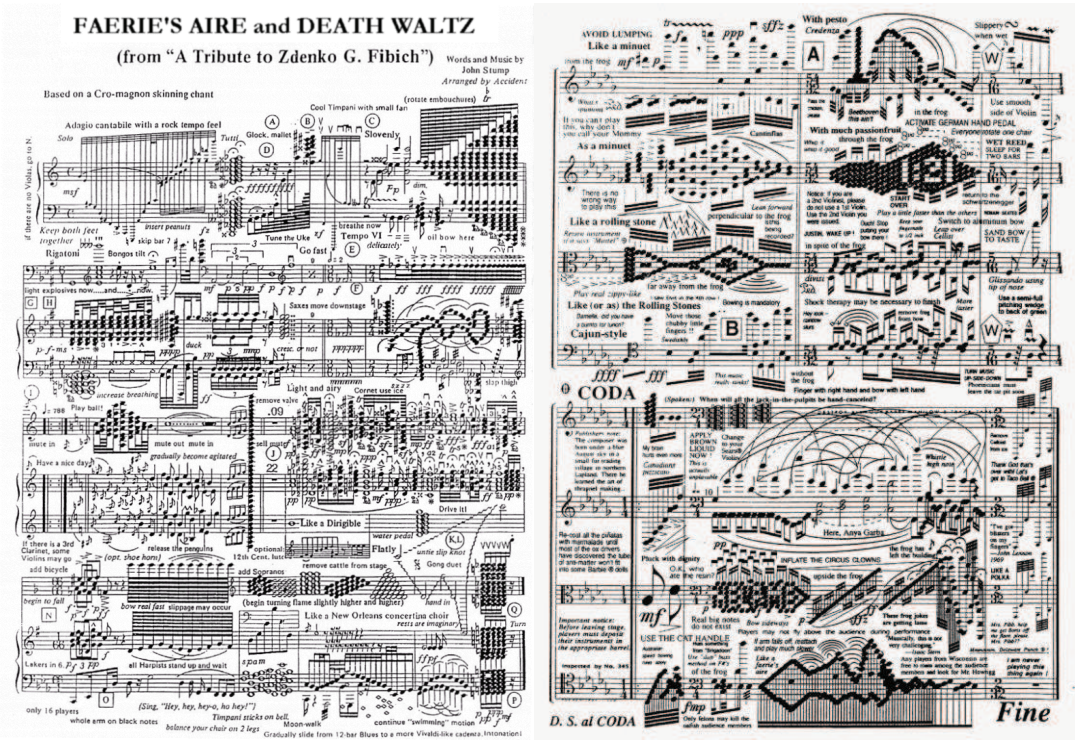


A **flat** symbol instructs you to play the note a <u>semitone</u> **lower**.

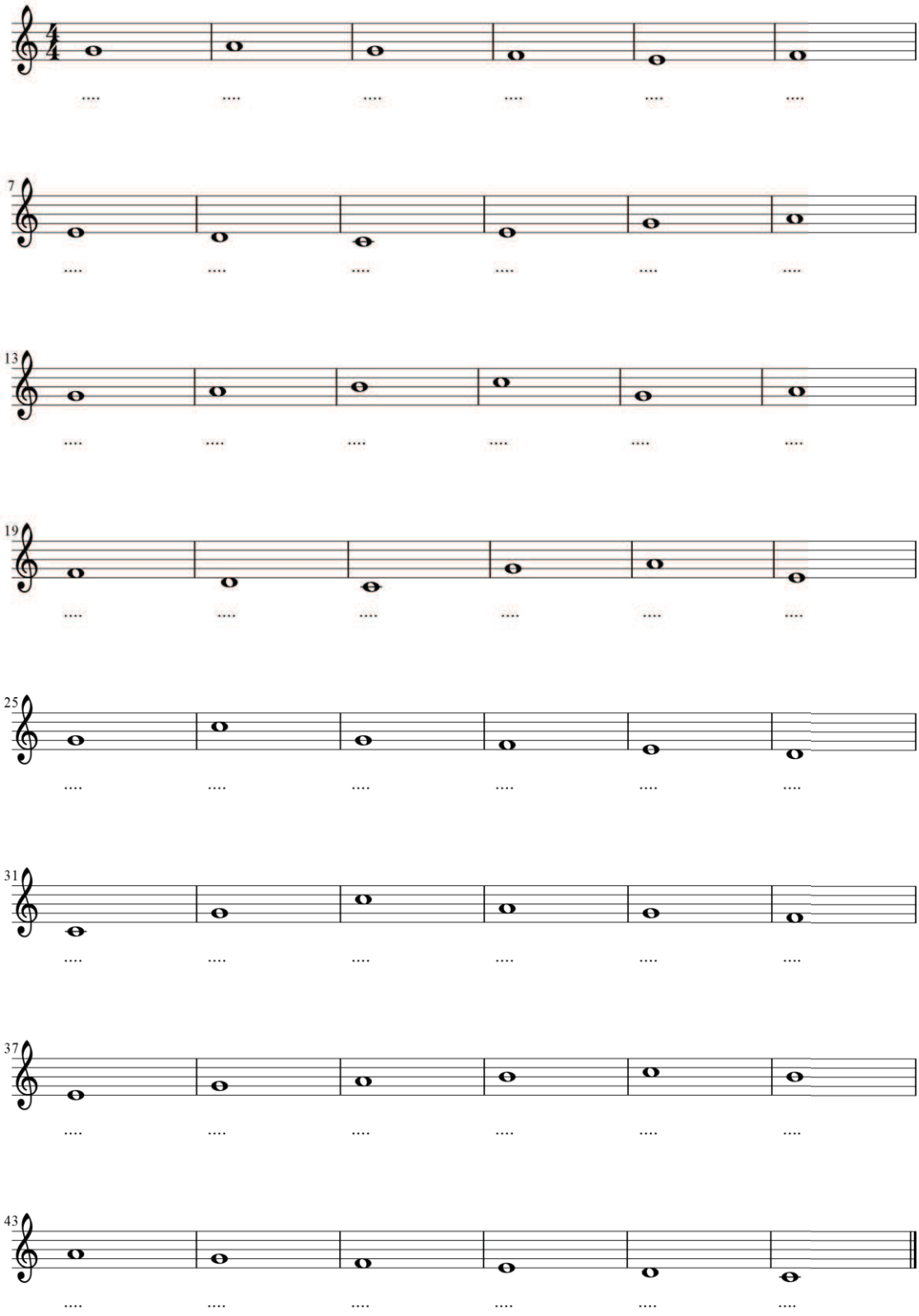
A **sharp** symbol instructs you to play the note a <u>semitone</u> **higher**.

A semitone is the name given to the step between two adjacent notes on the keyboard, either black or white.

An Unusual (and quite complicated) Score



Can you name all the following notes?



End of Unit Assessment

I have really enjoyed....

The thing I found the most challenging was...

For the next unit I must try to...

Teacher Comments:

Reflective Thinker:

- *You are evaluating your progress and looking for areas of improvement.*

Definitions & Vocabulary

Sweet Melodies

Discussion

Creative Thinking

- *You are thinking of your own ideas and exploring the ideas of others.*

What makes a good melody?

Write down two ideas.

1. .....

2. .....

Take part in the class discussion and write down the different points made by members of your class; you could just use keywords.

Space for writing ideas down

The answer!

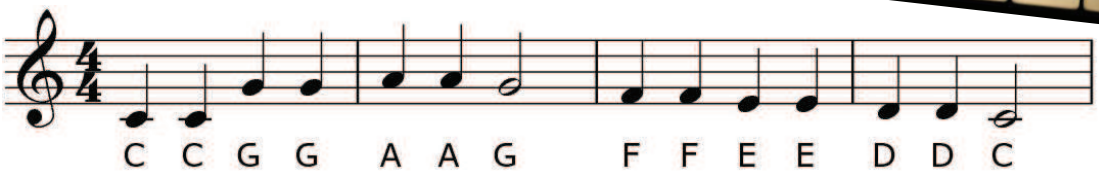
A good melody should .....

.....

.....

.....

Melody



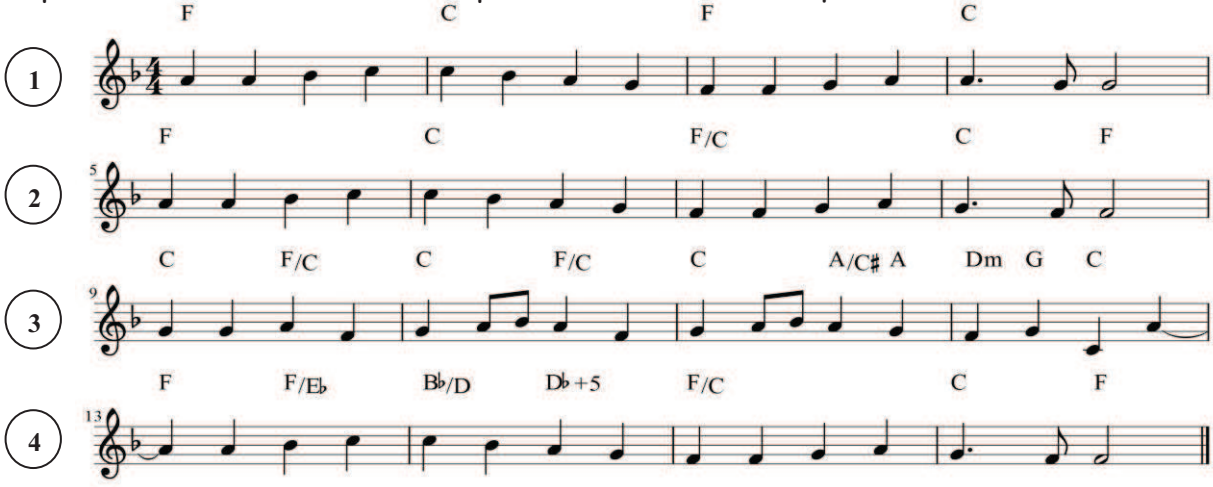
Did you recognize that melody? Listen to Mozart's version of this tune:
12 variations on "Ah, vous dirai-je, Maman" KV 265

In music, a melody is made by succession of sounds, normally with different pitches and durations. Then, **melody** may be defined as an organized succession of musical tones that expresses a musical idea. Usually, it gives the main character of the music.

Musical phrases

Melodies are structured in sections called phrases. **Phrases** are separated by **cadences** (pauses that separate musical phrases) like linguistic phrases are separated by punctuation marks. A phrase will end with a weaker or stronger cadence depending on if it is an antecedent (when the musical idea is not finished) or consequent phrase (when the musical idea is finished).

The melody of **Beethoven´s *Ode to Joy*** (from his 9th symphony) has four musical phrases, each one of four bars. This is called "symmetrical phrases" in music. Also, each pair is established as "question and answer".



Name The Melody

> ***Self Manager - Be organised***
> - *Organise your time effectively.*

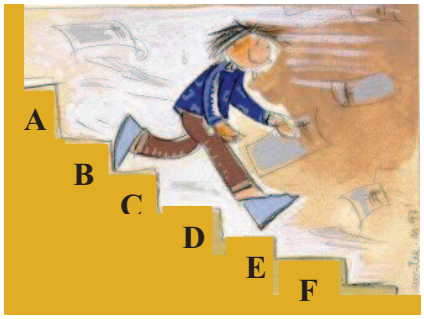
Listening exercise

After you have listened carefully to each melody, tick the appropriate boxes below. Take into consideration that melodies can have more than one characteristic.

	Fast	Spiky	Slow	Wavy
The melody is…				
1. Mozart: Queen of the Night Aria (The Magic Flute)				
2. Gregorian Chant				
3. Debussy: Reflets dans l'eau				
4. Rimsky-Korsakov: Flight of the Bumblebee				

The pace or *tempo* of melodies captures our attention quickly. However, melodic shape can be easily recognizable also, if you pay attention to it.

Scales



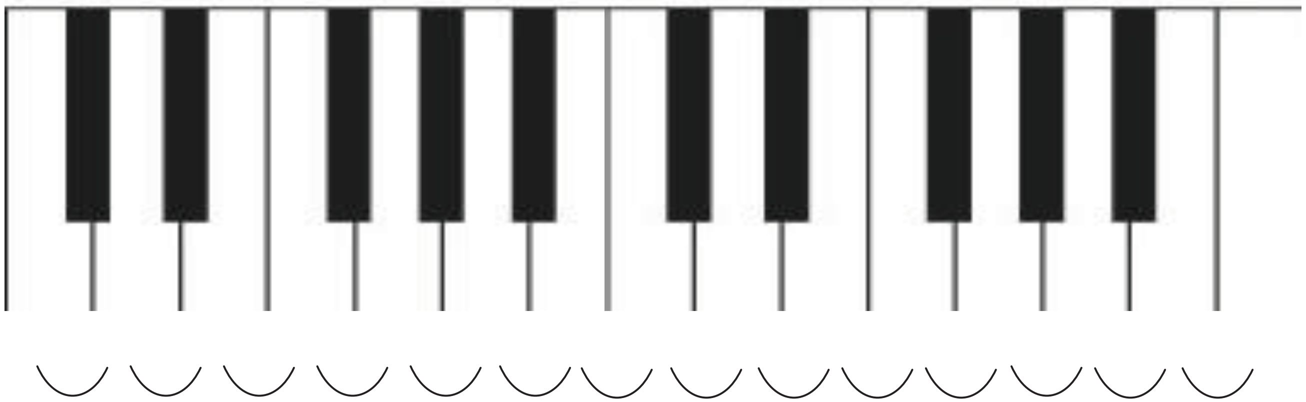
A **scale** is a series of notes arranged from low to high or vice versa, within the range of an **octave**. Most of the music written since the 17th century uses two types of scales: the *major scale* and the *minor scale*. What really defines the type of scale is not its first note but the intervals used to create it.

But before learning about those scales we will learn something about semitones and tones…

Tone and Semitone

The space between every key on a keyboard instrument is called a ***Semitone*** (or ***half step*** in American English). A semitone is each of the twelve steps in which an octave is divided. Two *Semitones* equal a ***Tone (whole step).***

Note names ______ _________ _______ _________ __



White keys distance

Interval (S or T) ....

Can you identify the space between the white notes?
Mark underneath the diagram above either a **S** for *Semitone* or **T** for *Tone.*

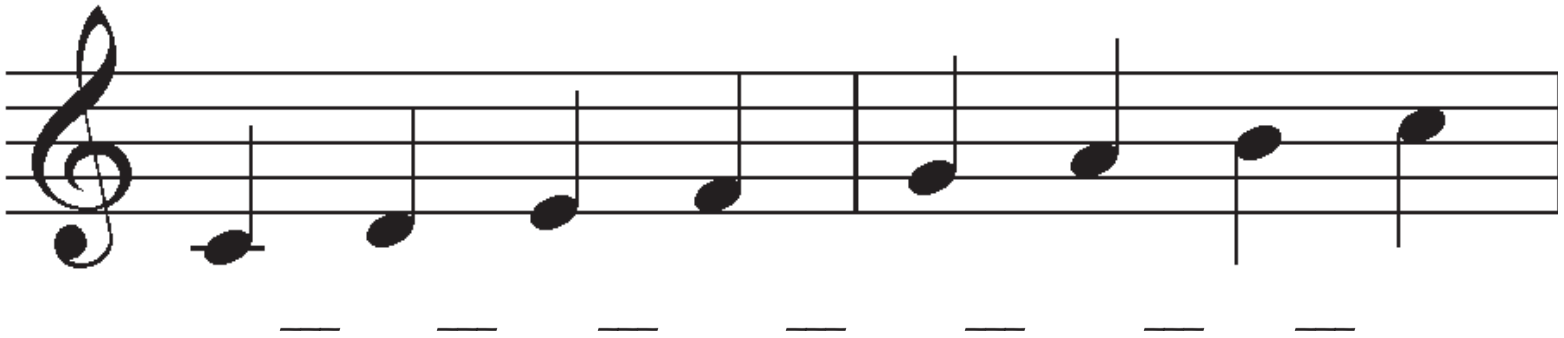
Can you name all the notes (including black ones) above the keyboard?

Major Scale

Below are the notes of a major scale, which scale do you think it is?
Clue: Look at the note at the beginning and end!

Reminder:

S is for a *Semitone* and **T** for a *Tone.*



My Major Melody

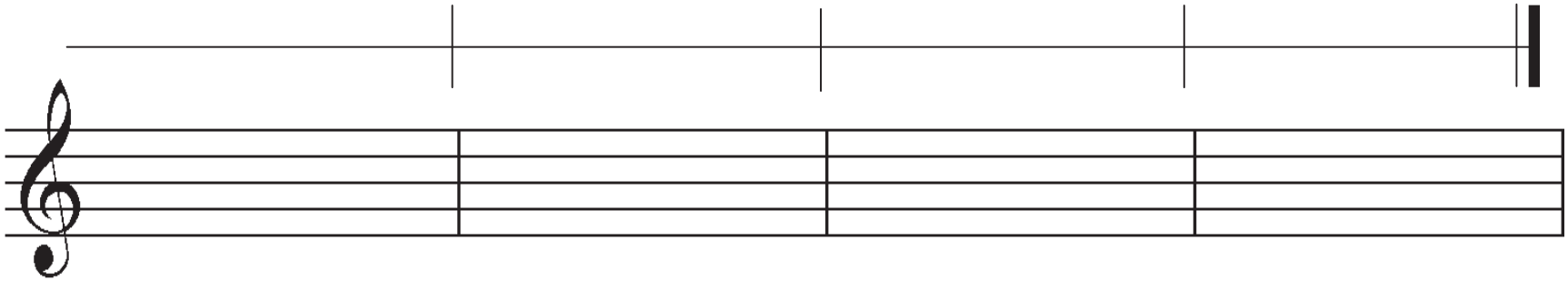
Compose your own Melody using the notes of the C major scale, and write it on the empty staff below.

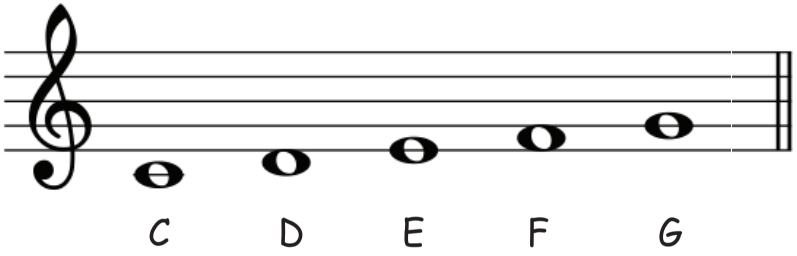
Remember the Golden Rules,

- *Always end on C (occasionally start on C as well)*
- *Always move in step.*
- *Use simple rhythms.*

Creative Thinker

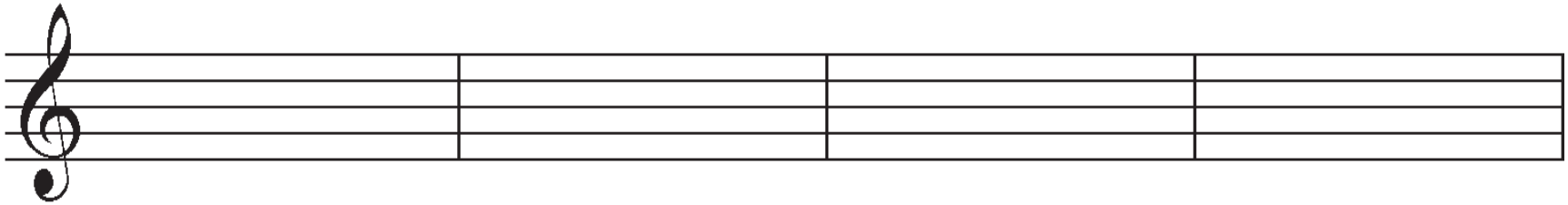
- *You are creating musical ideas on your own.*





Minor Mode

Using your knowledge of the Minor scale, rewrite your earlier melody so that it now becomes Minor.



Minor mode always has the third degree minor: the distance between 1st degree and 3rd is a tone and a semitone.

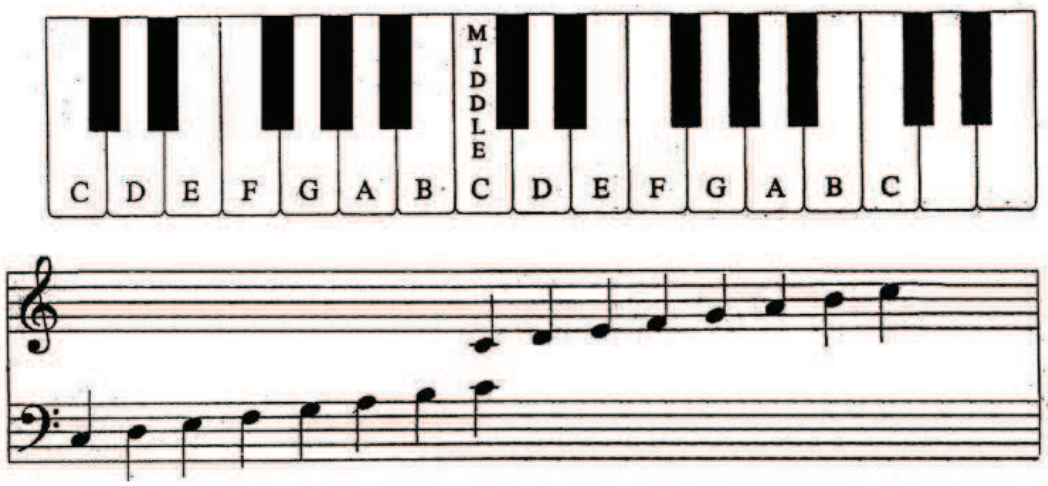
If you are not happy enough with your compositions maybe you should try out with these web pages. You will find out that everyone, with appropriate resources, can compose music:

http://www.earslap.com/projectslab/otomata
http://www.inudge.net/

Creative Thinker

- *You are now developing your own musical ideas.*

Reminder: Piano Grand Staff



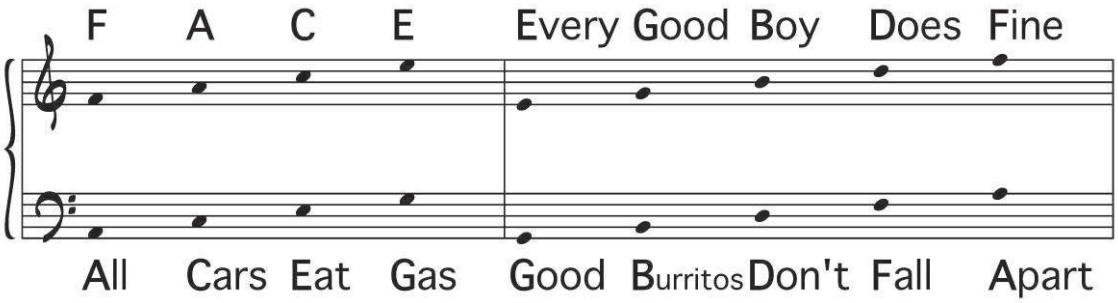
HERE IS THE SHORTCUT!!!

If you use these memorization tricks, your reading will become much quicker. You won't have to be counting up all the time! This is also a good tool for helping kids remember the lines and spaces on the grand staff of the sheet music.

In the treble clef (the top staff) use these tricks:

"FACE" for the spaces.

"Every Good Boy Does Fine" for the lines.

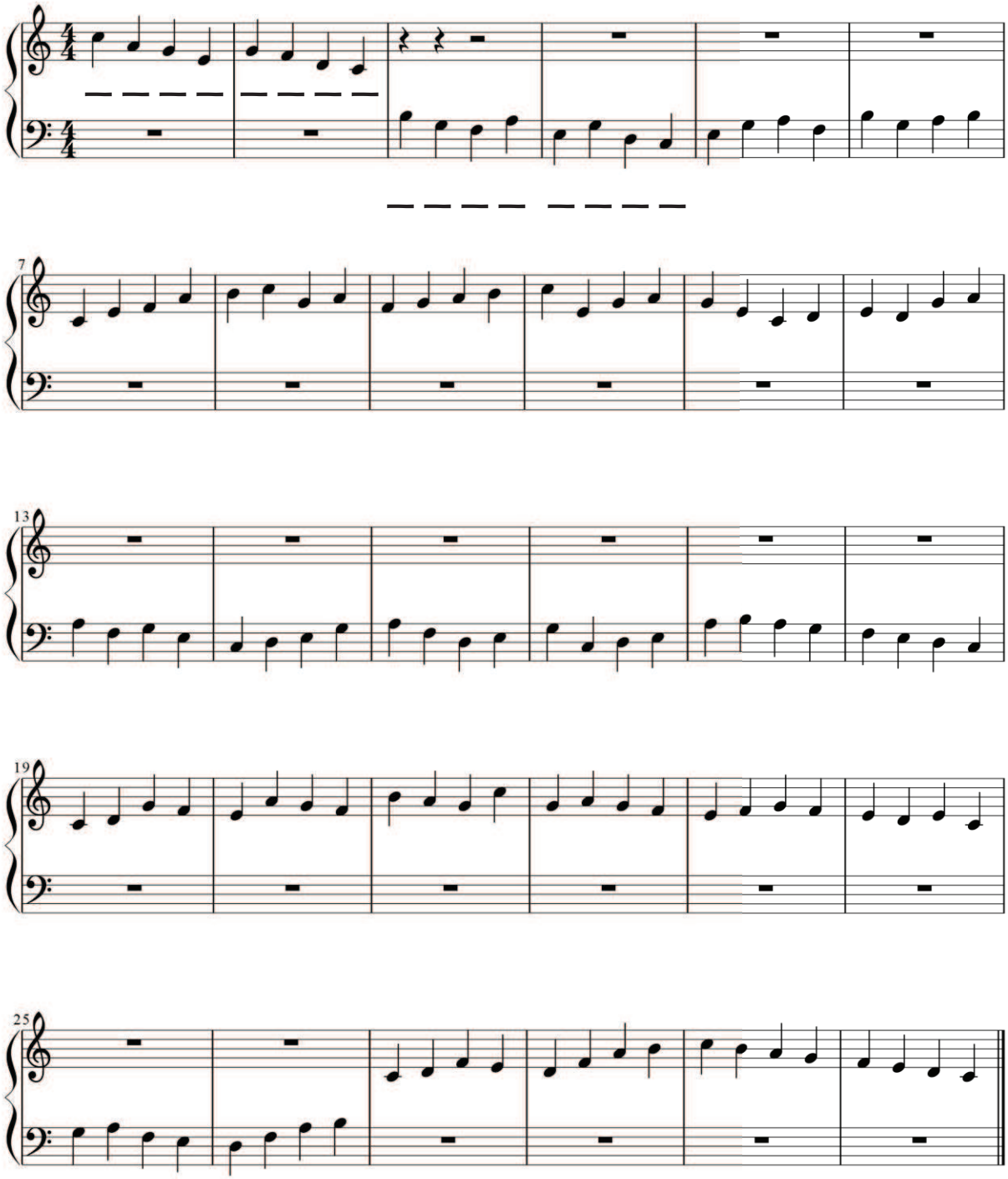


In the bass clef (the bottom staff) use:

"All Cars Eat Gas" for the spaces.

"Good Burritos Don't Fall Apart" for the lines.

Can you name all the notes in this piano staff?



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For the next unit I must try to...

Teacher Comments:

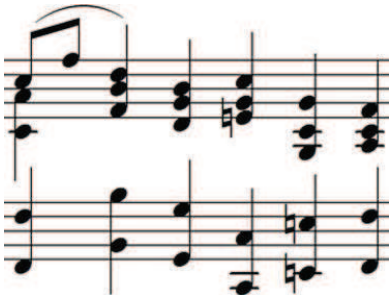
Reflective Thinker:

- *You are evaluating your progress and looking for areas of improvement.*

Definitions & Vocabulary

Octave: is the interval between one musical pitch and another with half or double its frequency. Both notes should have the same name, so it is the interval between a note and the next note of the same name.

Harmony and Friends



If we are going to learn about harmony
we will have to start talking about chords.

What is a chord?

Try to complete these sentences using the words below.

A Chord is a group of .....

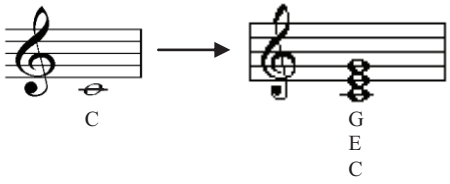
Chords are used to help create .....

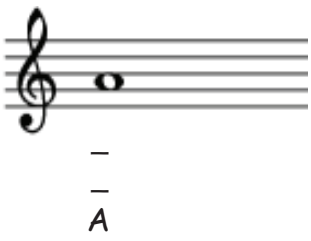
A Triad consists of ..... notes

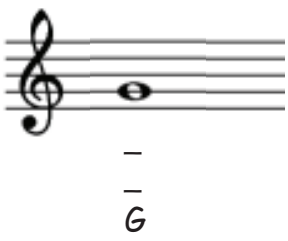
The pattern to help you remember how to create a triad is '*Play one, ..., play one, ..., play one*'

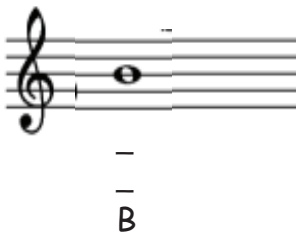
miss one	**notes**	**harmony**	**three**

Now try to complete these triads by adding the other two notes above:



1. 

2. 

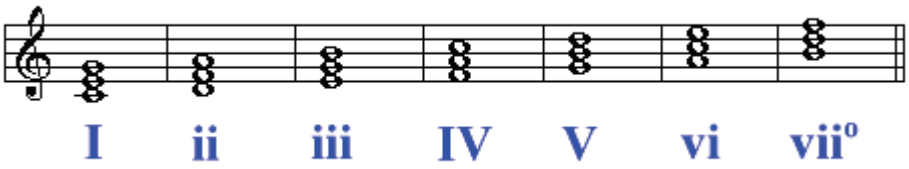
3. 

A **triad** is a group of three notes having a specific construction and relationship to one another. They are constructed on 3 consecutive lines or three consecutive spaces. Each member of the triad is separated by an interval of a third. The triad is composed of a Root, Third, and Fifth.

The **triad** is the simplest chord that Harmony can use. Great deals of songs are made up of only triad chords. A **chord** is a group of notes played at once.

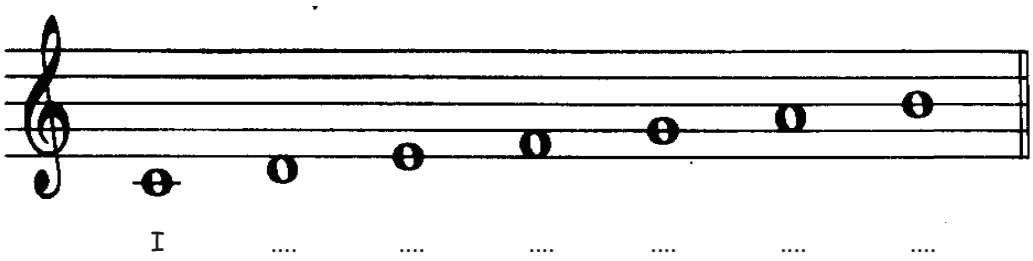
Roman Numerals

In the early 1800's, German composers started to use roman numerals to symbolize harmony, the science of chords, mostly to accompany melodies. Each note in a scale can have a triad or chord built above it. Upper case (Major) and lower case (minor) Roman Numerals are used to indicate the type of chord. I, IV, V are major triads/chords, ii, iii, vi are minor triads/chords, and vii is diminished.



Learning Chords

Below are the notes of a C major scale.
First label each of the notes 1-7 in Roman Numerals, and then add the extra notes needed to turn each note into a triad.



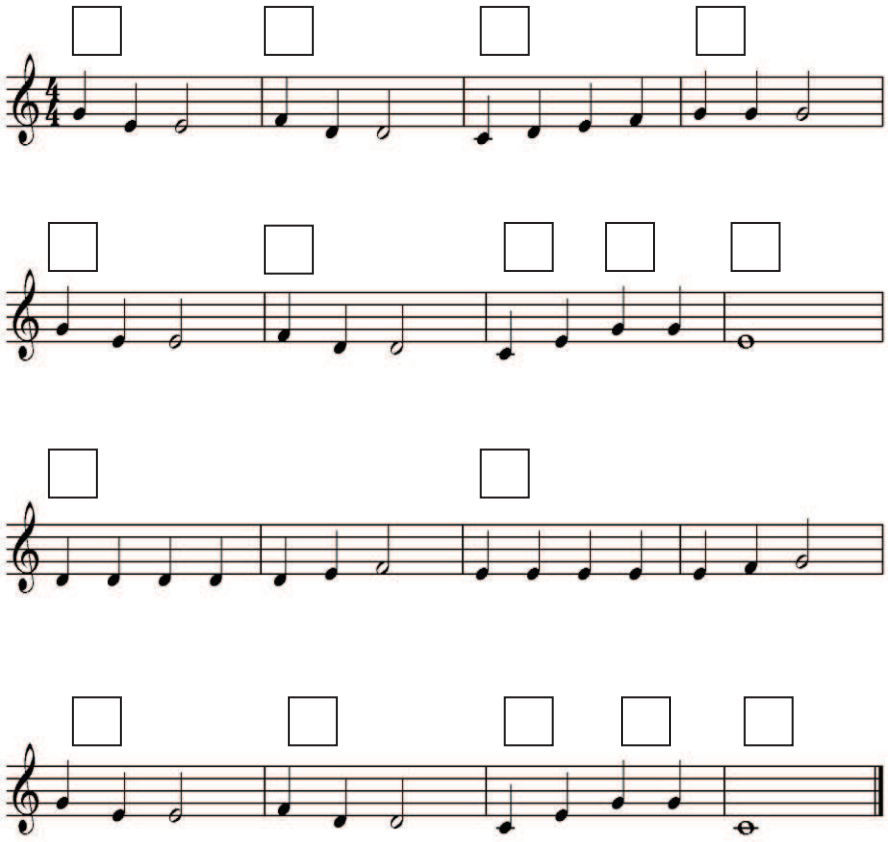
Reflective Learner - Share learning

- *You share learning with your peers.*

Lightly Row

Complete the arrangement by choosing the best chord to accompany the melody where there is a box.

You may only use **C** and **G** chords, triads on I and V degrees.



The first degree triad is called the tonic chord and V is called the dominant chord. In music theory, a scale **degree** is the name given to a particular note of a scale to specify its position relative to the tonic (the main note of the scale). The tonic is considered to be the first degree of the scale, from which each octave begins.

The **dominant** is the fifth scale degree of the diatonic scale, called "dominant" because it is next in importance to the tonic.

Notice that some notes of the melody are not in the triad of the chord.

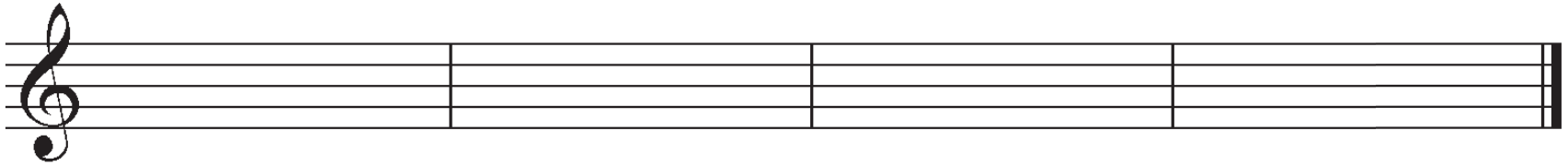
Effective Participator - Find solutions

- *You can break a problem into manageable tasks.*

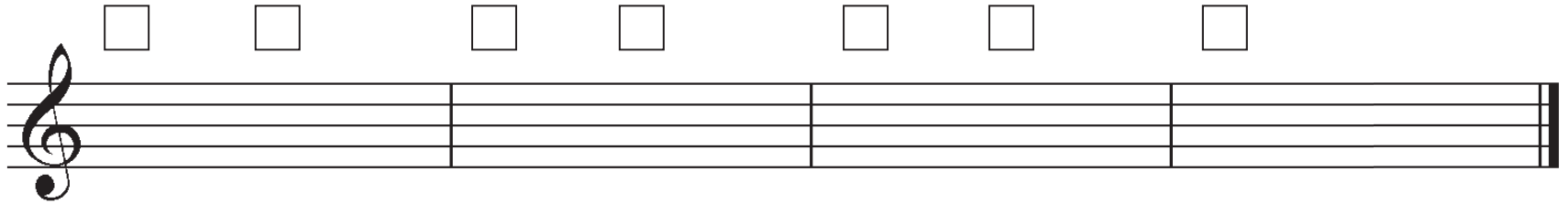
Melody with Harmony

First compose your four bars melody, and then add the chords that you think will best accompany your melody.

Melody



Harmony



Now we will play what you have composed and let´s hear ifr it is a great hit!!

Creative Thinker - Imagine

- *You imagine new ideas.*

Definition

Surely, you have already realized what **harmony** is: the use of simultaneous pitches or chords.
It is often said to refer to the "vertical" aspect of music, as distinguished from melodic line, or the "horizontal" aspect.

Dictation

The teacher will play six different major and minor chords.
Your task will be to take a guess. Which is major? Which is minor?

	1	2	3	4	5	6
Major						
Minor						

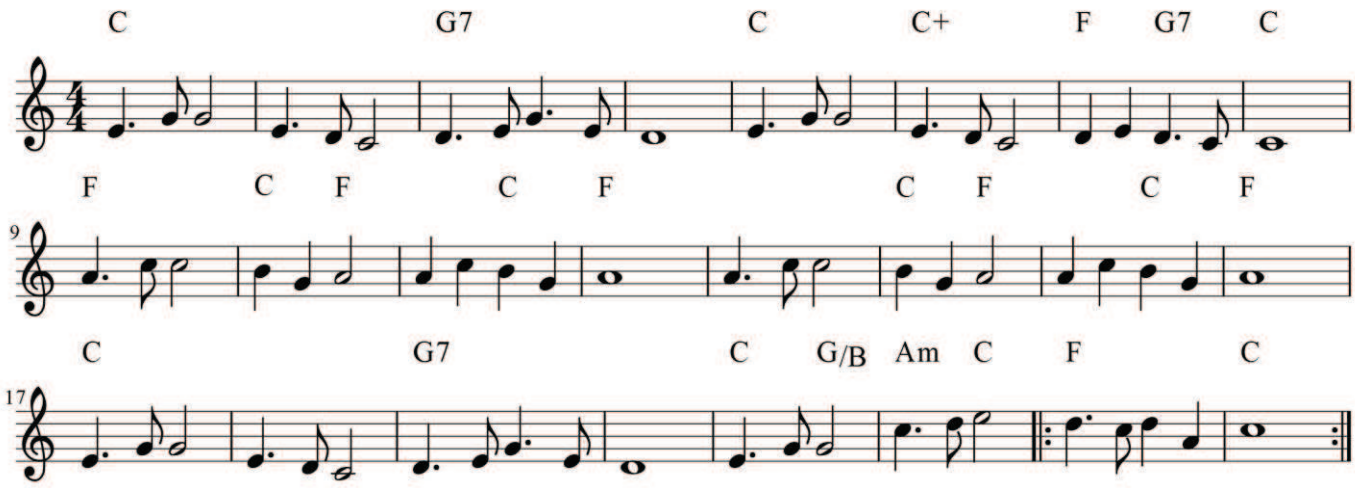
Interpretation

A new song to play with flute and chords (piano, keyboard, guitar ...).
This is a version of the second movement melody of Dvorak´s Symphony from the New World.

It needs to be interpreted in a slow tempo but with a cheerful and sunny mood.

New World

Dvorak



Tempo Markings

Regarding speed of music, there are some special indications to mark the speed of the beat that is called Tempo.

Tempo (an italian term for *time*, plural: *tempi*) is the speed or pace of a given piece. Tempo is a crucial element of any musical composition, as it can affect the mood and difficulty of a piece.

A tempo marking is a word or phrase that expresses the composer's idea of how fast the music should be felt. How fast a piece of music is felt depends on several different things, including the texture and complexity of the music. Tempo directions are traditionally given in Italian. Some common tempo markings are:

- *Grave* - very slow and solemn
- *Lento* - slow
- *Largo* – slow
- *Larghetto* - not quite as slow as largo
- *Adagio* - slow
- *Andante* - literally "walking", a medium slow tempo
- *Moderato* - moderate, or medium
- *Allegretto* - Not as fast as allegro
- *Allegro* - fast
- *Vivo*, or *Vivace* - lively
- *Presto* - very fast
- *Prestissimo* - very, very fast

Gradual changes in tempo:

- *Accelerando* – speeding up (abbreviation: accel.)
- *Mosso* – movement, more lively, or quicker.
- *Rallentando* – gradual slowing down (abbreviation: rall.).
- *Ritardando* – slowing down gradually (abbreviations: rit., ritard.).

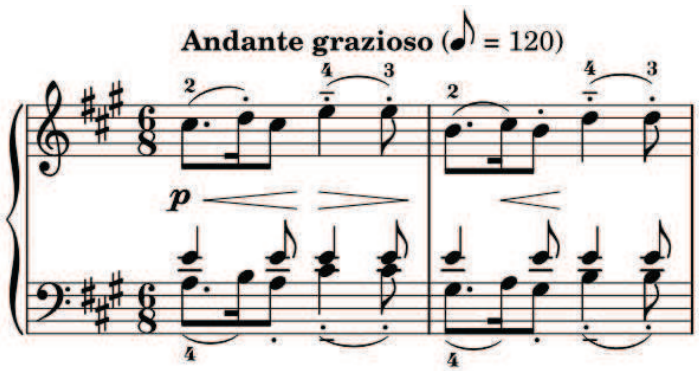
Usually, tempo and gradual tempo indications may be accompanied by other Italian words: *poco* (a little), *molto* (a lot), *piu* (more), *meno* (less), *mosso* (literally "moved").

Tempo is related to **mood** and **dynamics**. All of them contribute to provide more expression to music.

Mood markings

Mood, or *character*, is the feeling that music transmits. Mood markings sometimes affect tempo markings also:

- *Affettuoso* – with feeling/emotion
- *Agitato* – agitated, with implied quickness
- *Appassionato* – to play passionately
- *Animato* – animatedly, lively
- *Cantabile* – in singing style (lyrical and flowing)
- *Dolce* – sweetly
- *Energico* – energetic, strong, forceful
- *Eroico* – heroically
- *Espressivo* – expressively
- *Furioso* – to play in an angry or furious manner
- *Giocoso* – merrily, funny
- *Grazioso* – gracefully
- *Lacrimoso* – tearfully, sadly
- *Lamentoso* – lamenting, mournfully
- *Leggiero* – to play lightly, or with light touch
- *Maestoso* – majestic or stately (which generally indicates a solemn, slow march-like movement)
- *Malinconico* – melancholic
- *Marcato* – marching tempo, marked with emphasis
- *Marziale* – in a march style, usually in simple, strongly marked rhythm and regular phrases
- *Misterioso* - mystical, in a shady manner
- *Patetico* – with great emotion
- *Pesante* – heavily
- *Scherzando* – playfully
- *Sostenuto* – sustained, sometimes with a slackening of tempo
- *Tranquillamente* – adverb of tranquillo, "calmly"



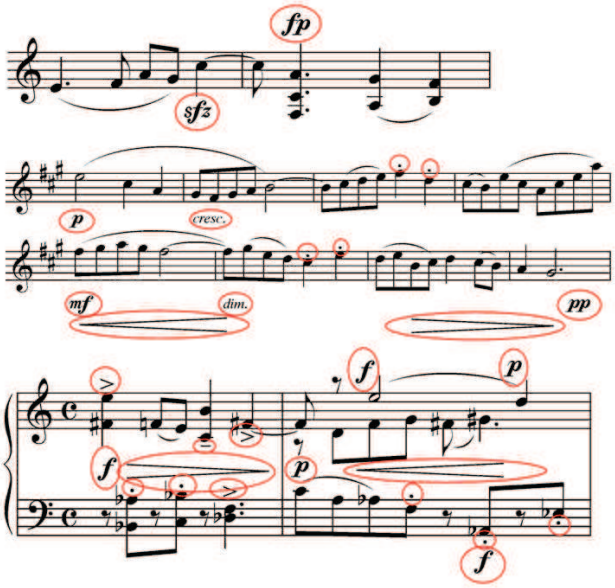
Mood and tempo markings in Mozart´s Sonata K. 331. The metronome is at the beat level in eight-notes ♪= 120 (twice per second).

Dynamics markings

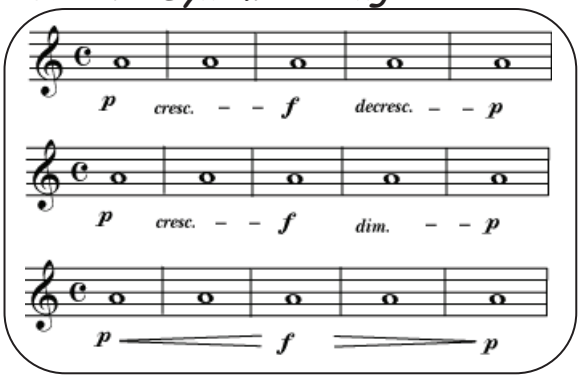
Dynamics normally refers to the volume of a sound or note, specifically the loudness or softness of the sounds. The term is also applied to the written or printed musical notation used to indicate dynamics.
Dynamics are relative and do not refer to specific volume levels:

Pianissimo	***pp***	***very soft***
Piano	***p***	***soft***
Mezzo piano	***mp***	***moderately soft***
Mezzo forte	***mf***	***moderately loud***
Forte	***f***	***loud***
Fortissimo	***ff***	***very loud***

Dynamics in 3 scores



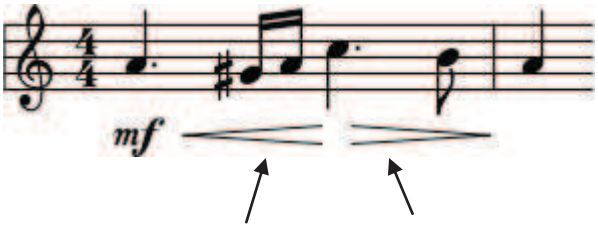
Gradual Dynamic Changes



In addition, two Italian words are used to show gradual changes in volume:

- ***Crescendo***, abbreviated cresc., translates as *"gradually becoming louder"*.
- ***Diminuendo***, abbreviated dim., or **decrescendo** abbreviated to decresc., means *"gradually becoming softer"*.

Signs, sometimes referred to as ***"hairpins"***, are also used to represent these words. If the lines are joined on the left, then the indication is to get louder; if they join on the right, the indication is to get softer.



This notation indicates music starting moderately loud, then becoming gradually louder and then gradually quieter.

Crescendo and diminuendo signs (hairpins)

Assessment

1. A Chord is a group of .....
2. Chords are used to help create .....
3. A Triad consists of ..... notes
4. The pattern to help you remember how to create a triad is 'Play one, ..., Play one, ... , ...'
5. The notes included in the C chord are ....., ... and .....
6. The notes included in the G chord are ....., ... and .....
7. What are the differences between major and minor keys?.....

   .....

   .....
8. Name at least three tempo markings. .....

   .....
9. Name three mood markings also. .....

   .....
10. Name three dynamics markings. .....

    .....

Check the answers and assess yourself.

My score is **..... /10**

End of Unit Assessment

I have really enjoyed....

The thing I found the most challenging was...

For the next unit I must try to...

Teacher Comments:

Reflective Thinker:

- *You are evaluating your progress and looking for areas of improvement.*

Definitions & Vocabulary

Musical Forms

How can we talk about form in music? Has music got a form? Can it be a circle, a square or a triangle? Could it even be a sphere, a pyramid or a cone? Definitely not! Let's see what we are talking about when we say "Form" in Music.

Music is not a spatial object, it develops in time. So music can't have a spatial form, but a temporal one. However, most music possesses some level of organization and that structure is what we call "form".

Musical form is the structure of a musical composition. We can perceive that structure by listening to the layout of a composition as divided into sections.

Written language, in stories and novels as well as text books, is organized in chapters, paragraphs, sentences, periods, words, letters (these ones are the smallest symbols).

In a similar way, cities are divided into neighborhoods, and these can have different elements such as buildings, gardens, parks, roads, rivers, etc. In order not to be lost in a city it is necessary to skip the details and get a wider perspective.

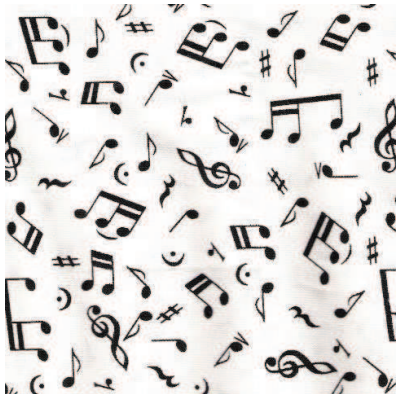
Musical form is the wider perspective of a piece of music. As music can be divided into sections, musical form depends on the organization of those sections in time.

Musical Form is the organization of musical elements in time.

Principles of Musical Form

The basic principles can be discerned from a brief consideration of **melody**, which has been defined as an organized succession of musical tones.

This succession of tones consists of different parts, structural units, the principal of which is the **phrase**—roughly corresponding to what can be sung or played in one breath or played with a single stroke of the bow.



A melody, then, ordinarily consists of a succession of phrases, in which there may occur **repetition** (the same phrase repeated), **variation** (the phrase altered, but in such a way that its identity remains perceptible), or **contrast** (a completely different phrase). The processes of repetition, variation and contrast create a huge amount of musical forms.

The relation between these component phrases is important for form. There may, for instance, be a complementary grouping of phrases as antecedent and consequent or "question and answer." The phrases may or may not be equal in length. A melodic entity that functions as an element in a larger whole is called a **theme**.

Reminder

Repetition: restating musical ideas
Contrast: avoiding monotony with new ideas
Variation: reworking ideas to keep them new

Listening

Listen to the song ***Oh so quiet*** by the artist Bjork. The music has two sections A and B, see if you can identify the differences between them.

http://www.youtube.com/watch?feature=endscreen&v=TEC4nZ-yga8&NR=1

It's, oh, so quiet
It's, oh, so still
You're all alone
And so peaceful until...

You fall in love, zing boom
The sky up above, zing boom
It's caving in, wow bam
You've never been so nuts about a guy
You wanna laugh you wanna cry
You cross your heart and hope to die

'til it's over and then
It's nice and quiet
But soon again
Starts another big riot

You blow a fuse, zing boom
The devil cuts loose, zing boom
So what's the use, wow bam
Of falling in love

It's, oh, so quiet
It's, oh, so still
You're all alone
And so peaceful until...

You ring the bell, bim bam
You shout and you yell, hi ho ho
you broke the spell, gee
This is swell you almost have a fit
This guy is "gorge" and I got hit
There's no mistake, this is it

'til it's over and then
It's nice and quiet
But soon again
Starts another big riot

You blow a fuse, zing boom
The devil cuts loose, zing boom
So what's the use, wow bam
Of falling in love

The sky caves in
The devil cuts loose
You blow-blow-blow-blow-blow your fuse
When you've fallen in love

Sshhhhhh...

	Part A	Part B
Instruments		
Dynamics		
Tempo		

Talk with a partner:

What parts are A and B?

How are they ordered?

Are there some more differences?

Creative Thinker – Make Links

- *You make connections and links*

Organization of musical ideas

If we label our musical materials, ideas or sections with the letters of the alphabet we can show how musical forms are created.

Any single section of music, consisting of phrases or other musical sections, we can call **A**. This musical section can be repeated to create an **AA** form.

If we instead chose to add a new section, **B**, we would have the musical form **AB**. This would be two contrasting musical sections.

If we chose to add another **A** to an **AB** form, but this time with variation we would have the form **ABA'**. (The ' is used to indicate variation).

The simplest song may have verse and Chorus. Verses would be the **A part** and choruses the **B part**. But a more complete song would include:

• **Intro**: The introduction is a unique section that comes at the beginning of the piece.

• **Stanza or verse**: In music, a stanza, or verse, is a poem set with a recurring pattern of both rhyme and meter. Normally verses have the same structure but different lyrics.

• **Chorus**: Chorus is used to mean the refrain of a song, which often sharply contrasts the verse melodically, rhythmically, and harmonically, and assumes a higher level of dynamics and activity, often with added instrumentation. Normally a chorus will repeat the music and lyrics.

• **Bridge**: In song writing, a bridge is an interlude that connects two parts of that song, building a harmonic connection between those parts.

• **Instrumental Solo**: A solo is a section of reduced instrumentality designed to feature a single performer. A break is an instrumental or percussion section that forms an interlude during a song.

• **Ending or coda**: being the last part of the song it has to sound as it is about to finish, in many cases slowing down the tempo or with a crescendo. There are a lot of conventional resources to make it just as required.

Exercises

Matching game

Match with arrows. Then, order the parts by numbering.

( )	Stanza / verse	It´s an interlude that connects two parts of that song
( )	Instrumental Solo	It´s the refrain of a song
( )	Chorus	It´s a unique section that comes at the beginning of the piece.
( )	Bridge	It´s a section of reduced Instrumentality
(1)	Introduction	It´s a poem set with a recurring pattern of both rhyme and meter

Gap-fill

Words to fill the blanks are at the bottom!

Musical form is the _____ of a musical composition. Musical form depends on the disposition of certain _____ successively in time. The main units in a musical composition are the _____ and we are going to mark them using _____ (A, B, C...). The relationship between the sections is the _____ and can be _____, _____ and _____, the three fundamental characteristics of musical form.

logic of the form - sections - variation - structure - repetition - structural units - capital letters - contrast

Definition

In your own words, what is musical form?

_____

_____

Common Musical Forms

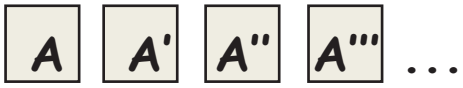
- **Strophic** - ***AAA*** (e.g.*, Michael Row the Boat Ashore, popular song)

Strophic form (also called "verse-repeating" or chorus form) is the term applied to songs in which all verses of the text are sung to the same music.

http://www.youtube.com/watch?v=scn3E8P0Y2o

- **Theme and variations – *AA'A''A'''*** (e.g. Haydn's Symphony 94, "The Surprise", second movement)

In music, **variation** is a formal technique where material is repeated in an altered form. The changes may involve harmony, melody, counterpoint, rhythm, timbre, orchestration or any combination of these.



http://www.youtube.com/watch?v=7c8b8umZMfU

- **Binary – *AB*** usually performed as ***AABB*** (e.g. Irish Step Dancing, jigs)

Binary form is a musical form in two related sections, both of which are usually repeated. Binary is also a structure used to choreograph popular dances. In music this is usually performed with repetitions in each section, as AABB.

http://www.youtube.com/watch?v=JLeCLRK8Ws8

- **Ternary – *ABA or AABA'*** (e.g. Ode to Joy and New World Symphony)

Ternary form, sometimes called **song form**, is a three-part musical form, usually schematicized as A–B–A. The first and third parts (A) are musically identical, or very nearly so, while the second part (B) in some way provides a contrast with them. The B section is often called the *trio*, especially in minuets and scherzi.

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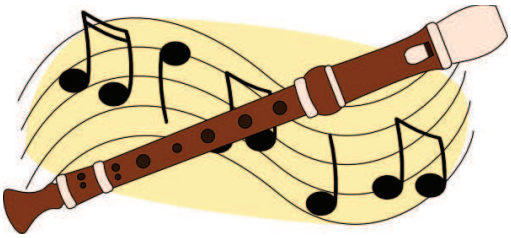
* *e.g. means "for example". It's from the Latin "exempli gratia".*

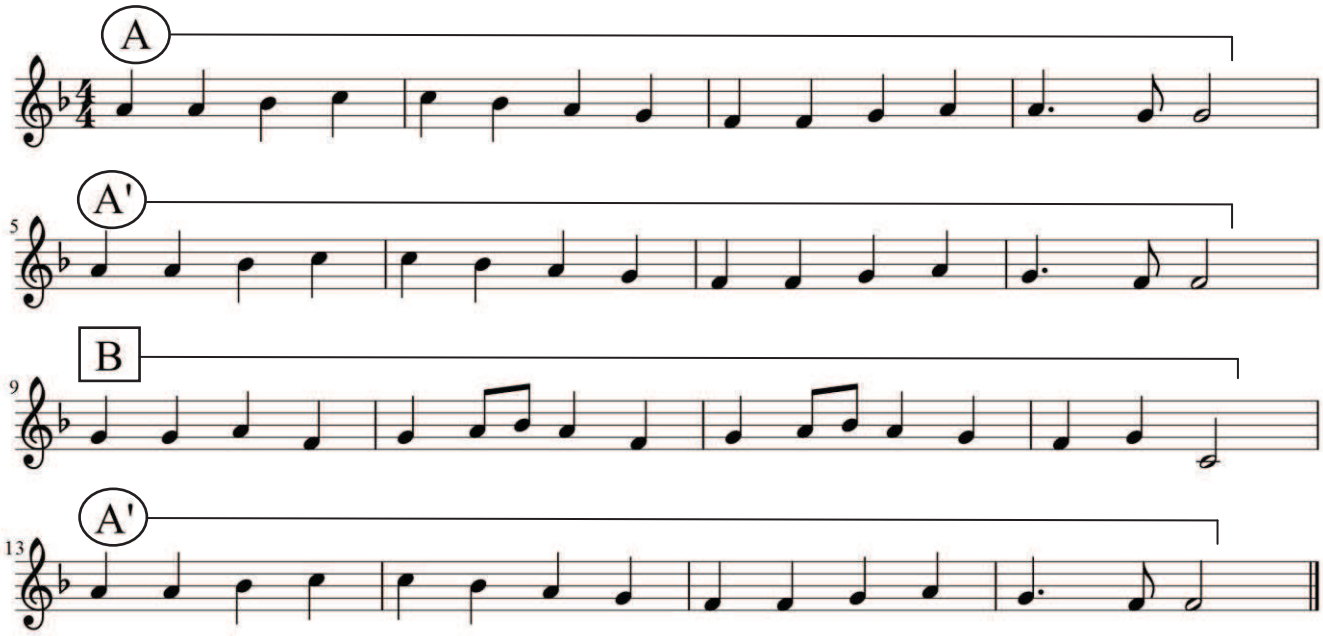
Interpretation



To perceive the form within a theme we can play the next two melodies.

Ode to Joy

Beethoven



(With chords on page 42.)

The sequence is **A A' B A'**: This is a ternary form with repetition with a little change at the end of the first phrase.

The Ode to Joy belongs to the fourth and last movement of Beethoven 9th Symphony.

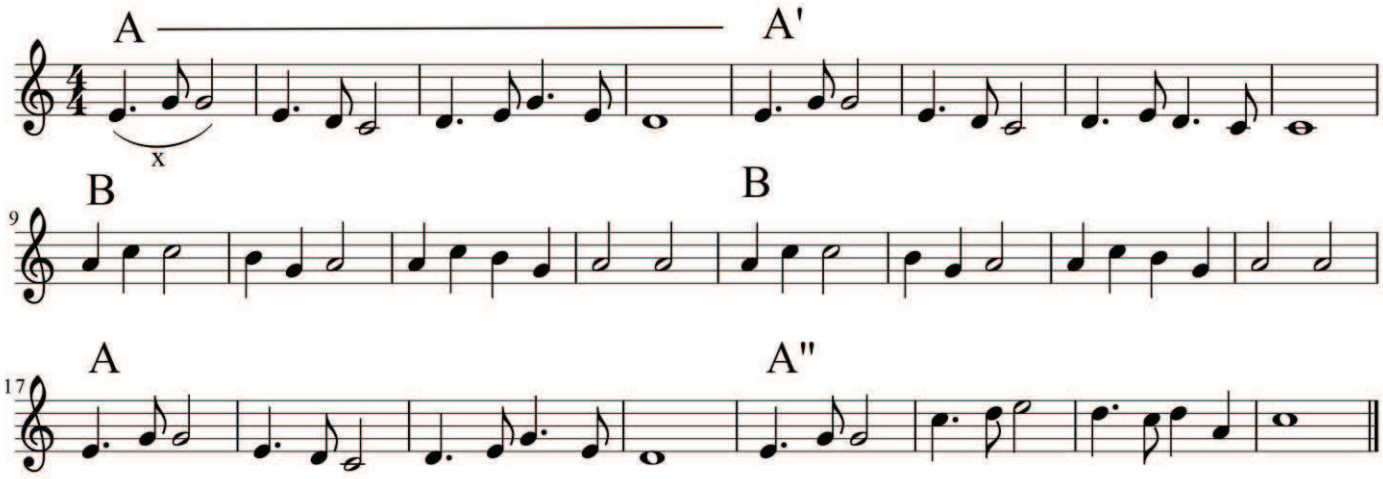
It was completed and premiered in 1824, three years before his death. By that time Beethoven was already totally deaf.

It is almost universally considered to be among Beethoven's greatest works, and is considered by some to be the greatest piece of music ever written.

Theme from New World Symphony

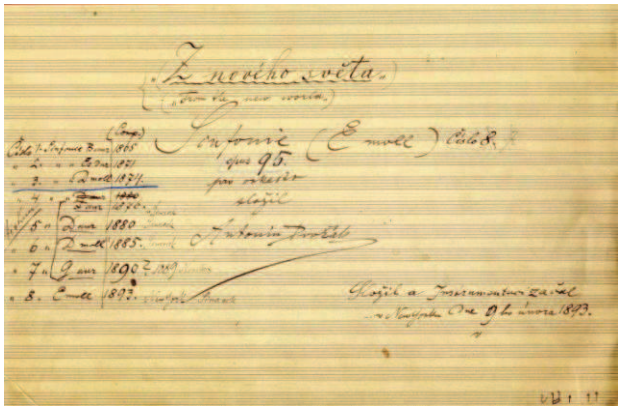
Second movement

Dvorak



(With chords on page 57.)

The sequence is ***A A' B B A A"***: This is a ternary form with repetitions in the three phrases. Notice the rhythm pattern marked as "x" which gives cohesion and unity to the whole melody (it appears twelve times!).



The Symphony No. 9 from Dvořák, known as "Symphony from the New World", was created in 1893 when the Czech composer was living and working in the United States.

It was commissioned by the **New York Philharmonic**, one of the most prestigious orchestras in that country.

Although melodies of the second movement seem alike American melodies, Dvořák himself explained: *<<I have not actually used any of the "Native American" melodies. I have simply written original themes embodying the peculiarities of the Indian [native Americans] music, and, using these themes as subjects, have developed them with all the resources of modern rhythms, counterpoint, and orchestral color.>>*

Complex Musical Forms

- **Rondo** - **ABACA**, or **ABACADA** (e.g. Beethoven's Für Elise)

In **rondo**, there is a main phrase, a contrasting middle section, then the reprise of the main phrase. The middle phrase is the 'episode', and the main phrase is the 'theme'. A second, third or more episodes can be heard before ending with the main phrase.

http://www.youtube.com/watch?v=o0VwTw1eZ1k

- **Sonata Form** - **Exposition**: (Theme A - Theme B) --- **Development** --- **Recapitulation**: (Theme A - Theme B) (e.g. Mozart's Little Night Serenade)

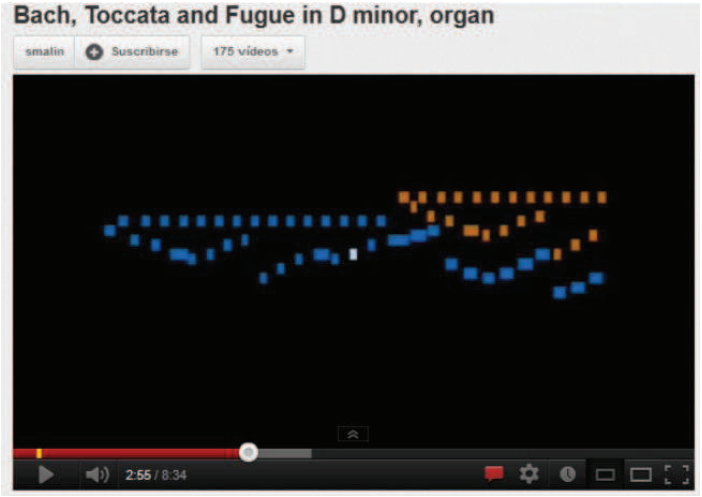
To catch on Sonata Form is not an easy task to do; but, as it is spread all over the world in tons of compositions, you may get acquainted with it.

http://www.youtube.com/watch?v=ISwUxGa_fsY

- **Fugue - Exposition, development and recapitulation with a theme (subject) and some episodes in imitative counterpoint.**

Fugue is a very complex form, with intricate development, but you can get an idea by listening to (and viewing) a J. S. Bach's work. Try to follow the theme in the fugue section searching for the "spoon shaped" subject.

http://www.youtube.com/watch?v=ipzR9bhei_o



Visualization of Johann Sebastian Bach's Toccata and Fugue: This image shows the main theme or subject in the Fugue, and it is represented with a computer program, Music Animation Machine, which has hundred of scores from the main composers.

End of Unit Assessment

I have really enjoyed....

The thing I found the most challenging was...

For the next unit I must try to...

Teacher Comments:

Reflective Thinker:

- *You are evaluating your progress and looking for areas of improvement.*

Definitions & Vocabulary

A World of Instruments

In this unit we will learn about types of instrument in the orchestra (and the live music they can make). Also, taking into account their importance nowadays, some electronics instruments.

Do you remember when we talked about **timbre** in the first unit? We said that timbre is what makes a particular musical sound different from another, even when they have the same pitch and loudness. *Timbre is the sound property that allows us to distinguish what object or voice causes or produces a sound.* It is also known as **tone color**.

Therefore, timbre has a lot to do with musical instruments.

So let´s look at the instrument families of the orchestra.

Basic vocabulary

Verbs (actions)

To bow	To pluck	To blow	To strike
To shake	To rub	To hit	To stretch

Nouns (objects)

Bow Brass instrument Double bass Edge Electrophones

Embouchure Feathers Guitar Hammer Harp

Horn Lute Slide brass instruments Stick

Reed (single-reed, double-reed) String instruments Trumpet

Trombone Valved brass Woodwind instrument

Instrument families

There are different ways to classify musical instruments. One way is to group them as they are in a Western orchestra: strings, woodwinds, brass, and percussion.

String instruments

A string instrument is a musical instrument that produces sound by strings that vibrate. The most common string instruments are violin, cello, viola, double bass, guitar, and harp.

All string instruments produce sound from one or more vibrating strings. The body of the instrument then transmits the sound to the surrounding air. They are usually categorized by the technique used to make the strings vibrate. The three most common techniques are bowing, plucking, and striking.

Bowing

Bowing (Italian: Arco) is a method used in some string instruments, including the violin, viola, cello, and the double bass. The bow consists of a stick with many hairs stretched between its ends that make the string vibrate.

Violin Bow

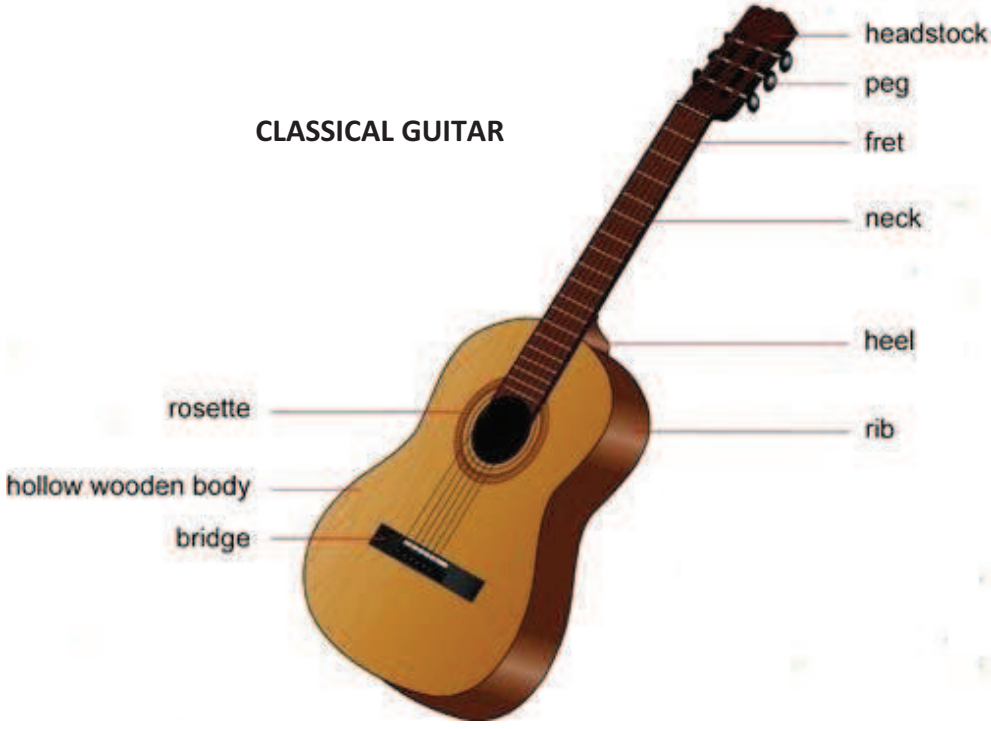
Plucking

Plucking (Italian: pizzicato) is the method of playing by using a finger or by some type of plectrum on instruments such as the guitar, harp or lute. This category includes keyboard instruments such as the harpsichord, which uses feathers (now plastic plectra) to pluck the strings.

HOLLOW-BODY ELECTRIC GUITAR

HARP

CLASSICAL GUITAR

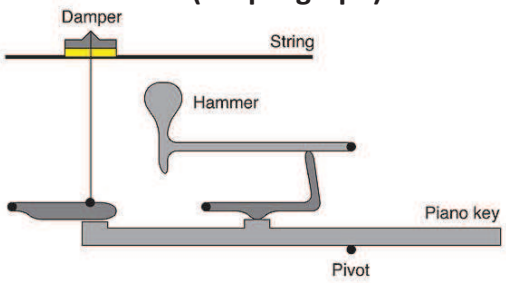


LUTE

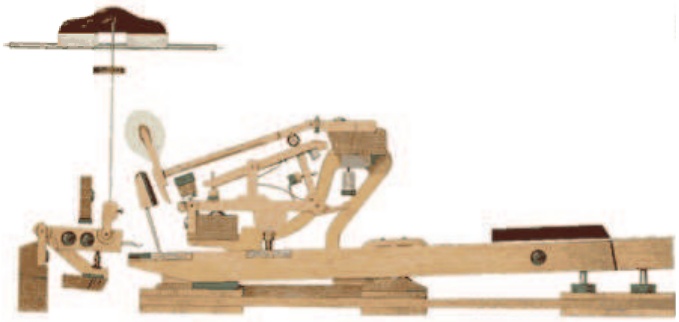
Striking

The third common method of sound production in stringed instruments is to strike a string with a hammer. Piano is by far the most well-known instrument to use this method, but there are others like the hammered dulcimer, cimbalom and psaltery (salterio), played with small mallet hammers.

Piano Mechanism (simple graph)



Piano mechanism (complete)



Hammered dulcimer player

Piano hammers in action

Futuristic piano

Woodwind instruments

A woodwind instrument is a musical instrument which produces sound when the player blows air against an edge or a thin piece of wood called a reed. Most of these instruments were originally made of wood, but some, such as the saxophone and some flutes, are now commonly made of other materials like metals or plastics.

The Woodwind Family:

• Flutes produce sound when air is blown across a hole. Flutes include transverse flutes and the recorder family.

• Single-reed instruments use just one reed. When air is forced between the reed and the mouthpiece, the reed vibrates, creating the sound. Single reed instruments include the clarinet and saxophone families.

• Double-reed instruments use two small pieces of cane joined together at the base. The air vibrates between the two pieces of cane. Double-reed instruments include the oboe, the cor anglais (also called English horn) or the bassoon.

Clarinet single-reed

Oboe double-reed

Brass instruments

A brass instrument is a musical instrument whose tone is produced by vibration of the player's lips into an "embouchure". Modern brass instruments generally come in one of two families: valved brass instruments that use a set of valves to change the pitch and slide brass instruments that use a slide to change the length of the tube. The main brass instruments are the French horn, the trumpet, the trombone and the tuba.

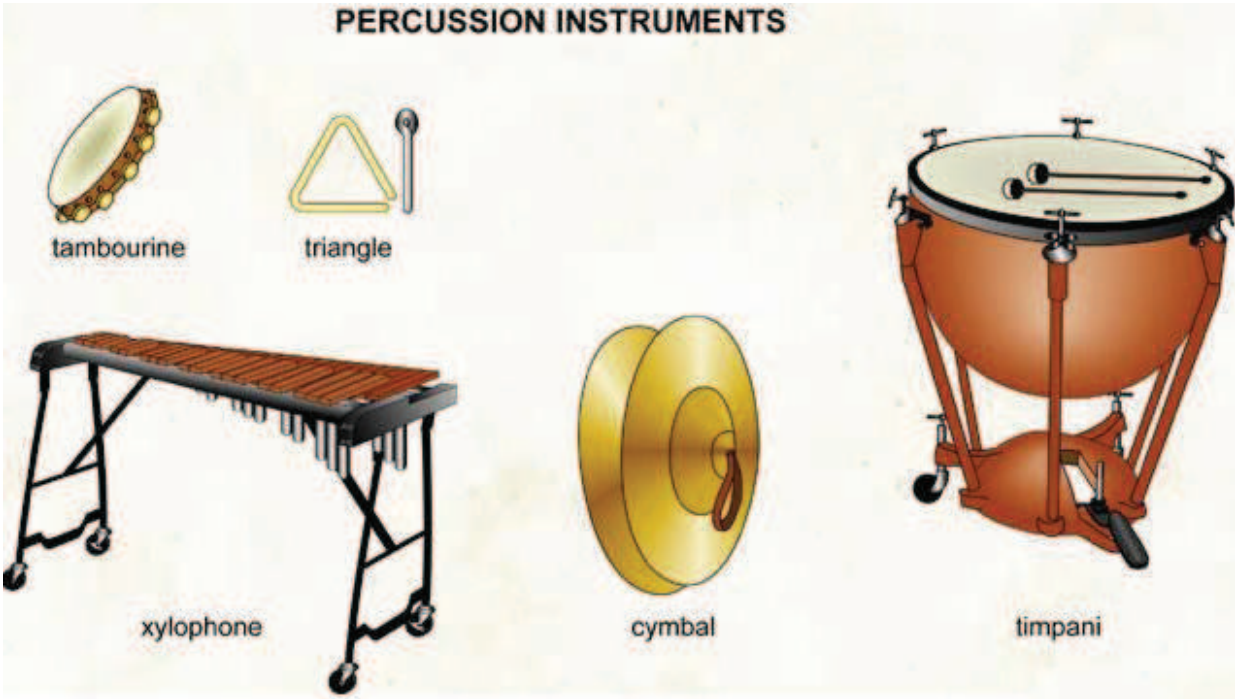
Louis Amstrong, one of the most famous jazz trumpet players

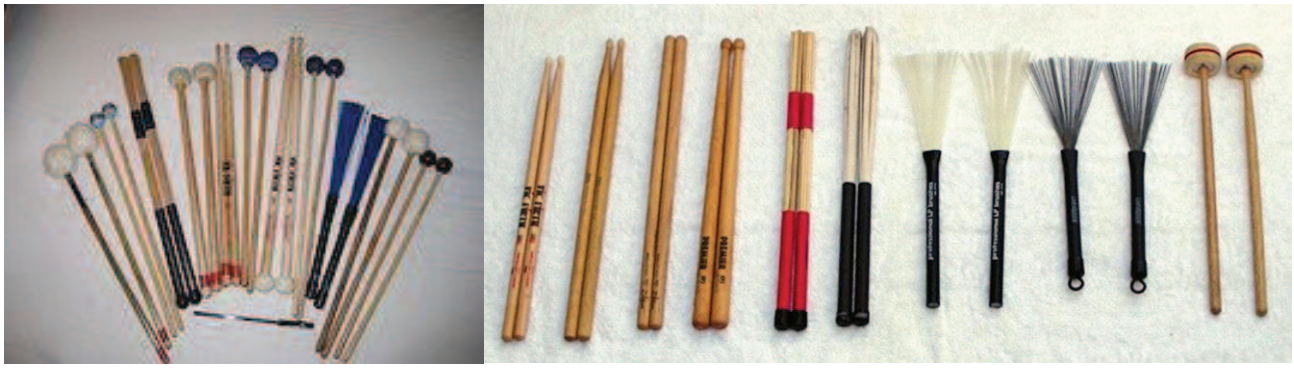
Different brass mouthpieces

Percussion instruments

A percussion instrument is any object which produces a sound by being hit with an implement, shaken, rubbed, scraped, or by any other action which makes the object vibrate.

When classifying instruments by function it is useful to note if a percussion instrument makes a definite pitch or indefinite pitch. For example, some percussion instruments (such as the marimba and timpani) produce an obvious fundamental pitch and can therefore play melodies and serve harmonic functions in music. Other instruments (such as drums and cymbals) produce sounds with such complex overtones and a wide range of prominent frequencies that one can't distinguish a pitch. Some of the main percussion instruments are the drum, the timpani, the xylophone, the vibraphone, the marimba or the triangle.





Percussion mallets, drumsticks and brushes

The orchestra

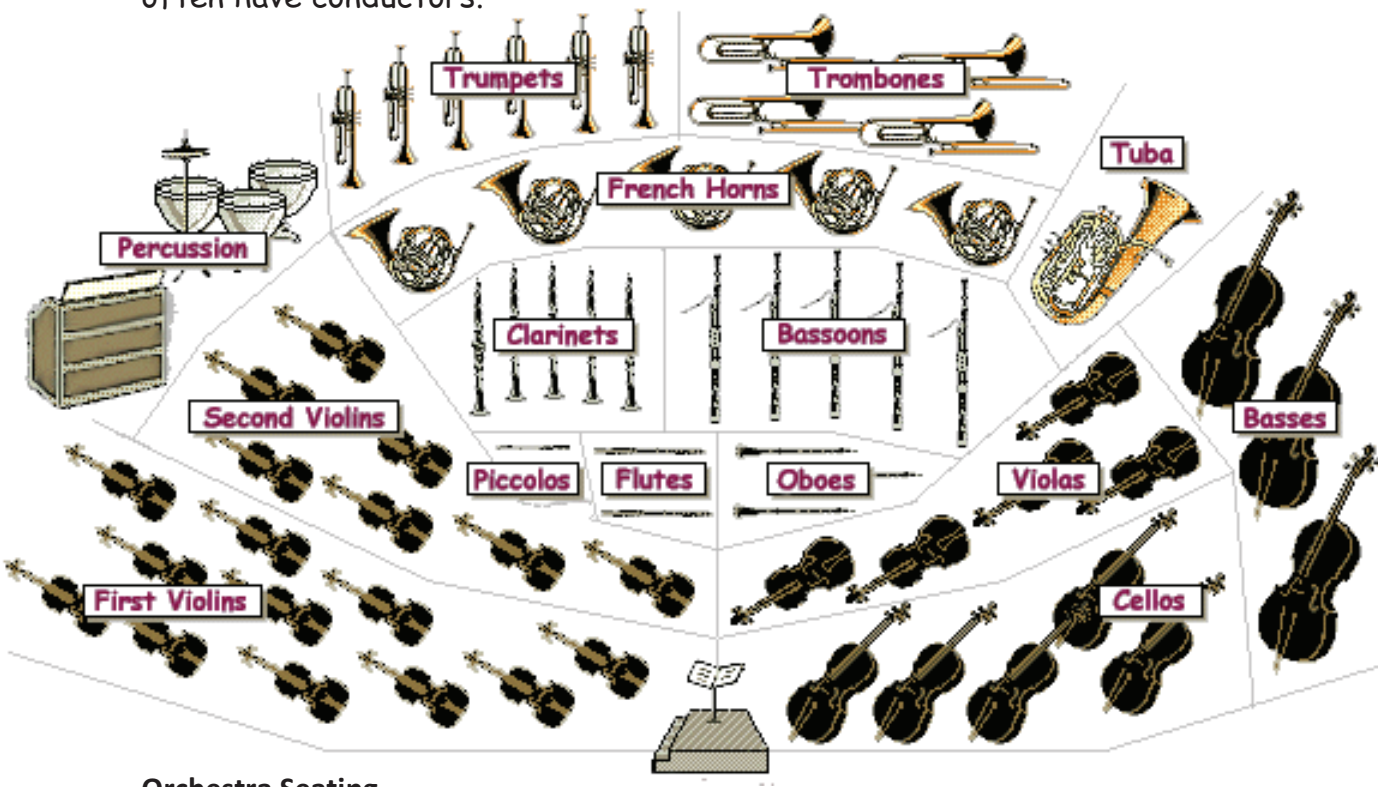
An orchestra is an instrumental ensemble, with different kinds of instrumental timbres in order to vary the music and make it more spectacular.

A smaller orchestra (of about twenty musicians) is called a chamber orchestra. A full size orchestra may sometimes be called a symphony orchestra.

The symphony orchestra is the largest instrumental group. It contains about one hundred instruments (sometimes more) from these different families: **string**, **woodwind**, **brass** and **percussion**.

The symphony orchestra usually plays classical music. There is also a person who organizes and directs the orchestra: the **conductor**, who marks the beat with a **baton**.

Conducting is the act of directing a musical performance by using visible gestures. Orchestras, choirs, concert bands and other musical ensembles often have conductors.



Orchestra Seating

This video link explains clearly the four instrument families:
http://www.youtube.com/watch?v=haLtMkNL84g

Some more essential links and videos to watch at:

Discover the instruments of the Orchestra:

http://www.philharmonia.co.uk/thesoundexchange/the_orchestra/instruments/

Britten: The Young Person´s Guide to the Orchestra. This is a didactical way to introduce to youth all the instruments from orchestra.

http://www.youtube.com/watch?v=4vbvhU22uAM

The Young Person's Guide to the Orchestra, Op. 34, is a musical composition by Benjamin Britten in 1946 with a subtitle "*Variations and Fugue on a Theme of Purcell*". It was originally commissioned for an educational documentary film called *The Instruments of the Orchestra,* directed by Muir Mathieson and featuring the London Symphony Orchestra conducted by Malcolm Sargent. The work is one of the best-known pieces by the composer, and is one of the three popularly used scores in children's music education, together with Saint-Saëns' *The Carnival of the Animals* and Prokofiev's *Peter and the Wolf*.

The work is based on the Rondeau from Henry Purcell's incidental music to Aphra Behn's *Abdelazer*, and is structured, in accordance with the plan of the original documentary film, as a way of showing off the tone colours and capacities of the various sections of the orchestra.

Oboe players in The Young Person´s Guide to the Orchestra

Ravel: Bolero. In this video you can watch a conductor conducting with neither hands nor arms.

Part 1: http://www.youtube.com/watch?v=8po7FZonP-I

Part 2: http://www.youtube.com/watch?v=MnyiofG9k9M

Snare drum's ostinato.

The work had its genesis in a commission from the dancer Ida Rubinstein, who asked Ravel to make an orchestral transcription of six pieces from Isaac Albéniz's set of piano pieces, *Iberia*. While working on the transcription, Ravel was informed that the movements had already been orchestrated by Spanish conductor Enrique Arbós, and that copyright law prevented any other arrangement from being made. When Arbós heard of this, he said he would happily waive his rights and allow Ravel to orchestrate the pieces. However, Ravel decided to orchestrate one of his own previously-written works. But then, he changed his mind and made up a completely new piece based on a musical form and Spanish dance called bolero.

Bolero became Ravel's most famous composition, much to the surprise of the composer, who had predicted that most orchestras would refuse to play it.

Violin section in plucked playing with fingers in Bolero

Electronic instruments

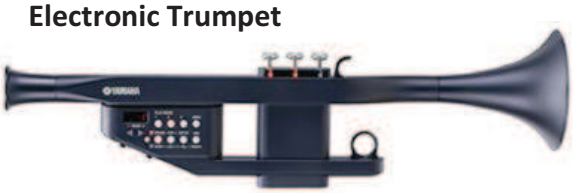
An **electronic musical instrument** is a musical instrument that produces its sounds using electronics. Such an instrument sounds by outputting an electrical audio signal that ultimately drives a loudspeaker.

An electronic instrument may include a user interface for controlling its sound, often by adjusting the pitch, frequency, or duration of each note. However, it is increasingly common to separate user interface and sound-generating functions into a music controller (input device) and a music synthesizer, respectively, with the two devices communicating through a musical performance description language such as MIDI.

These are just a little example:

Wind Synthesizer Controller

Electronic Trumpet



Electronic drums

Electronic keyboard

Electronic bagpipe

There is a huge amount of possibilities in Electronic Music. So, taking into account the enormous advance that computer engineering has experimented recently, in a near future we all will be even more amazed.

EXERCISES

1.- a) Some instruments make sound because of the …… inside them – they are called **wind instruments**.

b) Some instruments make sound because of the …… they have – they are called **string instruments.**

c) Some instruments make sound when you …… or …… them – they are called **percussion instruments**.

Hit	**Air**	**Strings**	**Shake**

2.- The violin is the …… of the string instruments; it is also the …… It has four ……, and it is played by rubbing the strings with the ……. The violinist places the violin over their left shoulder, holding the violin with their left hand and the bow with the right ……

In an orchestra there are usually a lot of violins, normally divided into two groups, each playing different …… The principal first violin in an orchestra is called the leader. He or she is …… directly in front of the conductor, to the left. He or she is in charge of carrying out the ……. instructions and leading the others.

smallest	**melodies**	**hand**	**seated**	
bow	**highest**	**strings**	**conductor's**	

3.- Give examples

Write some examples for the different instrument families:

String: _____

_____

Woodwind: _____

_____

Brass: _____

_____

Percussion: _____

_____

4.- Matching pairs

Join with lines each of the following instruments with the corresponding picture:

A brass instrument

A struck string instrument

A percussion instrument

A plucked string instrument

A single-reed woodwind instrument

A bowed-string instrument

A double-reed woodwind instrument

End of Unit Assessment

I have really enjoyed....

The thing I found the most challenging was...

For the next unit I must try to...

Teacher Comments:

Reflective Thinker:

- *You are evaluating your progress and looking for areas of improvement.*

Definitions & Vocabulary

Let's Vocalize

This unit is about the human voice, how to use it for music making, which means how to sing properly. First, let´s start with an exercise.

Listen and classify the voices you hear according to this table:

Speaking voices	Singing voices Opera / Classical music	Singing voices Popular / Traditional music

a) Spoken French
b) "Highway to Hell", ACDC
c) "La Vie Est Un Miracle - In The Beginning", Emir Kusturica
d) "Ave Maria", T. L. Victoria
e) Spoken English
f) Talking drums, Tamale, Northern Ghana
g) "Carmen - Toreador", Bizet
h) Spoken German
i) "The Magic Flute – Queen of the Night", W. A. Mozart
j) "The Shop Shoop Song", Cher

In the previous exercise there are two kinds of voices:

Speaking voice	Singing voice
Intensity: 40 dB Normal technique Not tuned	Intensity: 40-120 dB Special technique Tuned

People have different ideas about what makes a good voice. Chinese opera singers produce a nasal tone. European opera singers prefer a fuller sound. Different voices suit different singing styles. A classical singer needs a strong, clear voice that can be heard at the back of a concert hall. Rock and jazz singers have more varied and natural-sounding voices. Their voices do not need to be so powerful because they use microphones for amplification.

PRODUCTION OF THE HUMAN VOICE

The same way a musical instrument needs three elements or phases to produce sound, the vocal instrument requires them as well. Could you guess and complete the table with the information below?

	Which mechanism produces the vibration?	What is vibrating?	What is resonating?
Violin			
Xylophone			
Voice			

Tube resonators or wooden boxes under the bars Vocal cords

Striking the bars with mallets The body of the violin Bars

Bowing or plucking the strings Strings

Breathing to move air through the vocal cords

Resonating chambers: chest, throat, mouth and nose cavities

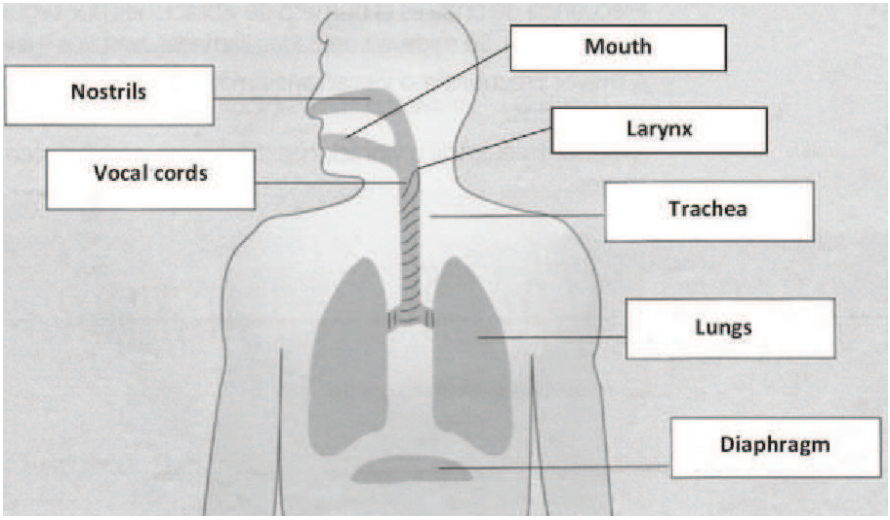
BREATHING

Breathing is the process that moves air in and out of the lungs and delivers oxygen to where it is needed in the body and removes carbon dioxide.

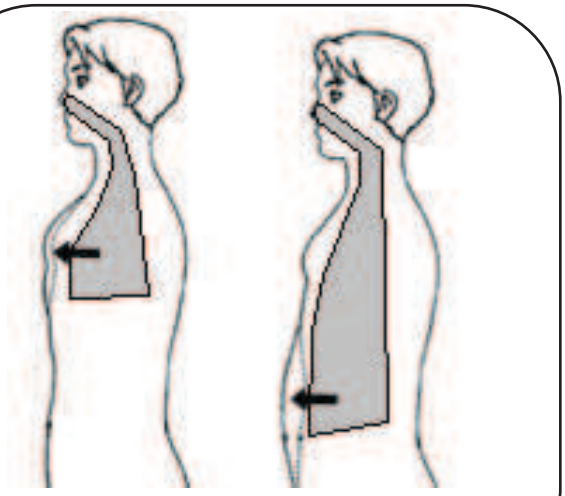
Breathing is necessary not only for respiration, but also for speaking and singing. This air exchange is carried out by the respiratory system with the lungs and the contraction of the diaphragm muscle.

Although breathing is an unconscious process, humans can control the respiratory muscles in order to improve our breathing, as we do while practicing a sport or singing.

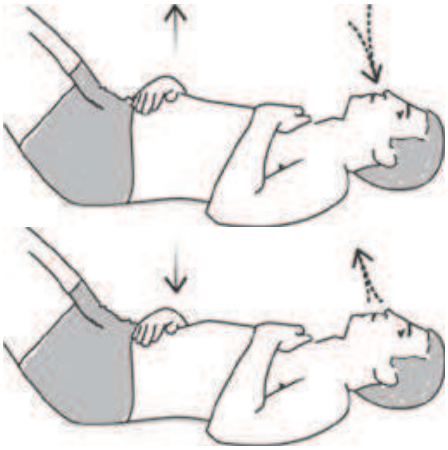
Simple scheme of respiratory system



Pulmonary respiration takes place in two different movements: inhalation and exhalation. There are two kinds of breathing: chest and abdominal breathing. Chest breathing limits our lungs capacity due to the rib cage.



Chest breathing vs. abdominal breathing



Practice of abdominal breathing

VOICE PRODUCTION

Stretched across the larynx are two pieces called vocal cords. When you sing or speak, muscles pull the cords tight. The pressure of air squeezing out between them makes them vibrate. Tighter and shorter vocal cords give a higher sound, as with guitar or violin strings.

During puberty the vocal cords and larynx grow. Teens experiment the voice break and get a deeper pitched voice. This growing is far more prominent in boys, so that the voice gets an octave lower in boys, and just a third lower in girls.

VOICE RESONANCE

Our body acts as a resonating chamber, amplifying the sound. The vibrating cords make the air in your throat vibrate. Your chest, throat, mouth and nose cavities all start to resonate. Sound waves are carried out of your mouth.

Your voice is unique because you have slightly different shaped resonating chambers. These alter the shape of the sound waves produced, and consequently shape your voice.

VOICE TYPES

Voices are as individual as faces; some altos will have a smaller or bigger range, or the softest and strongest part of their range might be in a different place than other altos. These are approximate, average ranges for each voice category:

Voice classification:

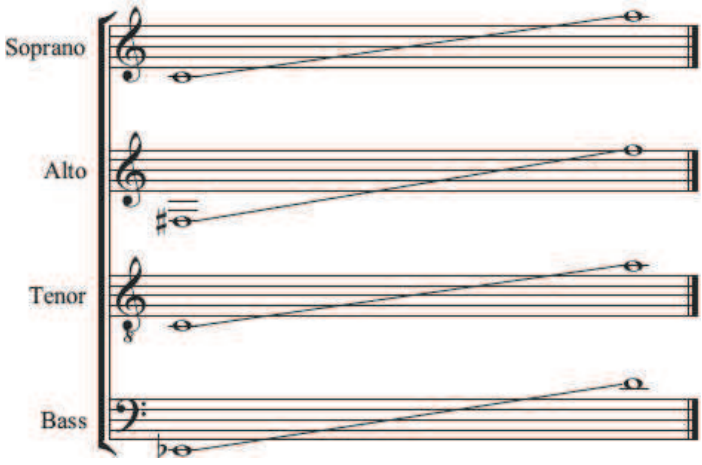
Everyone finds it a strain to sing above and below certain notes. Concerning pitch, each voice has its own limits, called its vocal range.
It depends on the singer's vocal cords size.

Regarding the range there are several types of voices (as classified in western tradition):

Children's voices

Female voices
- Soprano
- Mezzo-soprano
- Contralto

Male voices
- Tenor
- Baritone
- Bass



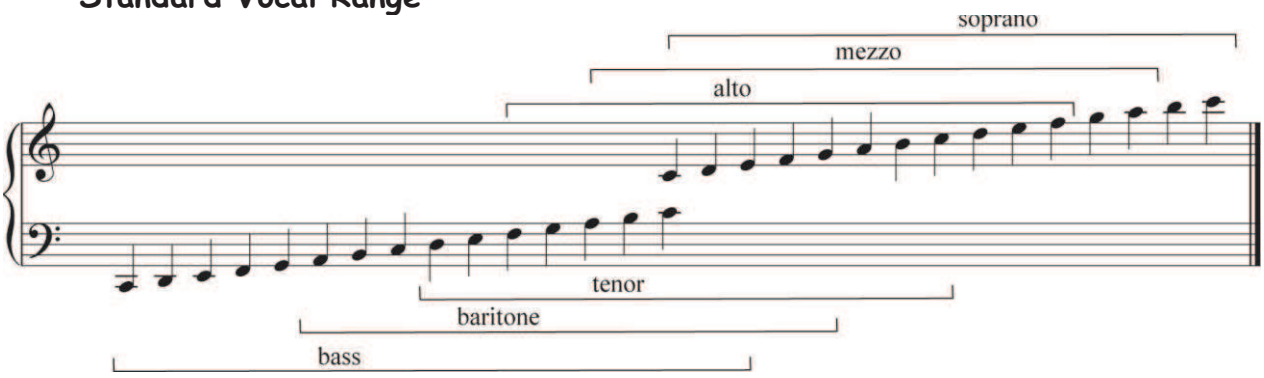
Of course, there are many other voice styles and classifications, like those from popular music (e.g. pop, rock or hip hop) and traditional singing (e.g. Chinese, Indian or African chants).

CHORAL MUSIC

A choir, chorale, or chorus is a musical ensemble of singers. Choral Music, therefore, is the music written specifically for a choir to perform. Choirs are often led by a conductor or choirmaster and can be categorized by the voices:

- Mixed choir (male and female voices). This is perhaps the most common type, usually consisting of soprano, alto, tenor and bass voices, often abbreviated as SATB.
- Male choirs, with the same SATB voicing as mixed choirs, but with boys singing the upper part (often called treble or boy soprano) or men singing alto (in falsetto), also known as countertenor. This format is typical of British cathedral choirs.
- Female choirs, usually consisting of soprano and alto voices, two parts in each.
- Children's choirs, often two-part SA or three-part SSA.

Standard Vocal Range



OTHER USES

Beatboxing is a form of vocal percussion primarily involving the art of producing drum beats, rhythm, and musical sounds using one's mouth, lips, tongue, and voice. It may also involve singing, vocal imitation of turntablism, and the simulation of horns, strings, and other musical instruments.

Overtone singing also known as **overtone chanting**, or **harmonic singing**, is a type of singing in which the singer manipulates the resonances created as air travels from the lungs, past the vocal folds, and out the lips to produce a melody.

EXERCISES

Gap-fill

Watch the video and listen to it to complete the text:
http://www.youtube.com/watch?v=C2lRhe_Fc04

The organs of speech are located in the mouth and throat. During speech, air pushed out from the _____ through the _____ and epiglottis vibrates the _____, producing a continuous tone whose pitch can be changed by varying the shape of the larynx. Consonants, modified by the tongue and lips, are formed when air is emitted suddenly or when it is cut off firmly. Voice production occurs in the _____. During _____ the _____ are held apart, but as speech commences, the cartilages of the larynx are drawn together by the action of muscles and a "chink" is created. The _____ of the vibrating cords, changed by the tilting of the cartilages, alters the _____ of the spoken sound. _____ notes are produced by the vibration of tight vocal cords and _____ notes are produced by vibrating loose cords.

True or false?

If you think the statement is false, correct it.

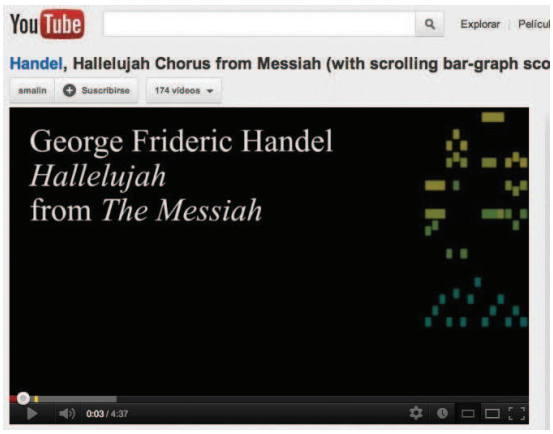
_____ - Within the category of women's or children's voices, the intermediate voice is called contralto.

_____ - The lowest human voice is the tenor voice.

_____ - The highest human voice is the mezzosoprano voice.

_____ - There are three types of male voices, but only one type of female voices.

Listen to this choral piece and answer the questions:
http://www.youtube.com/watch?v=JtoNHnR_WhE



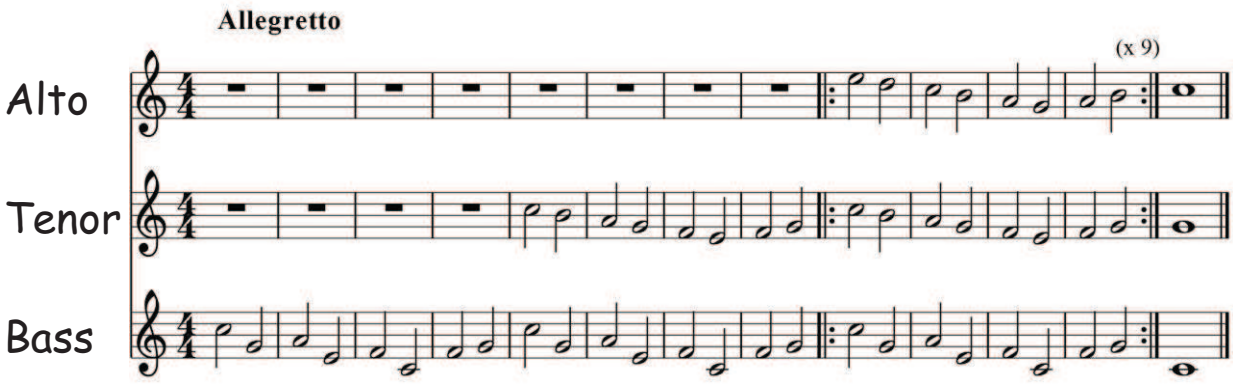
- What kind of choir is it?
- Are they singing **a capella** or with accompaniment?
- Write the name of the four voices in the order that they appear at 1'57''.

IMPROVE YOUR SINGING

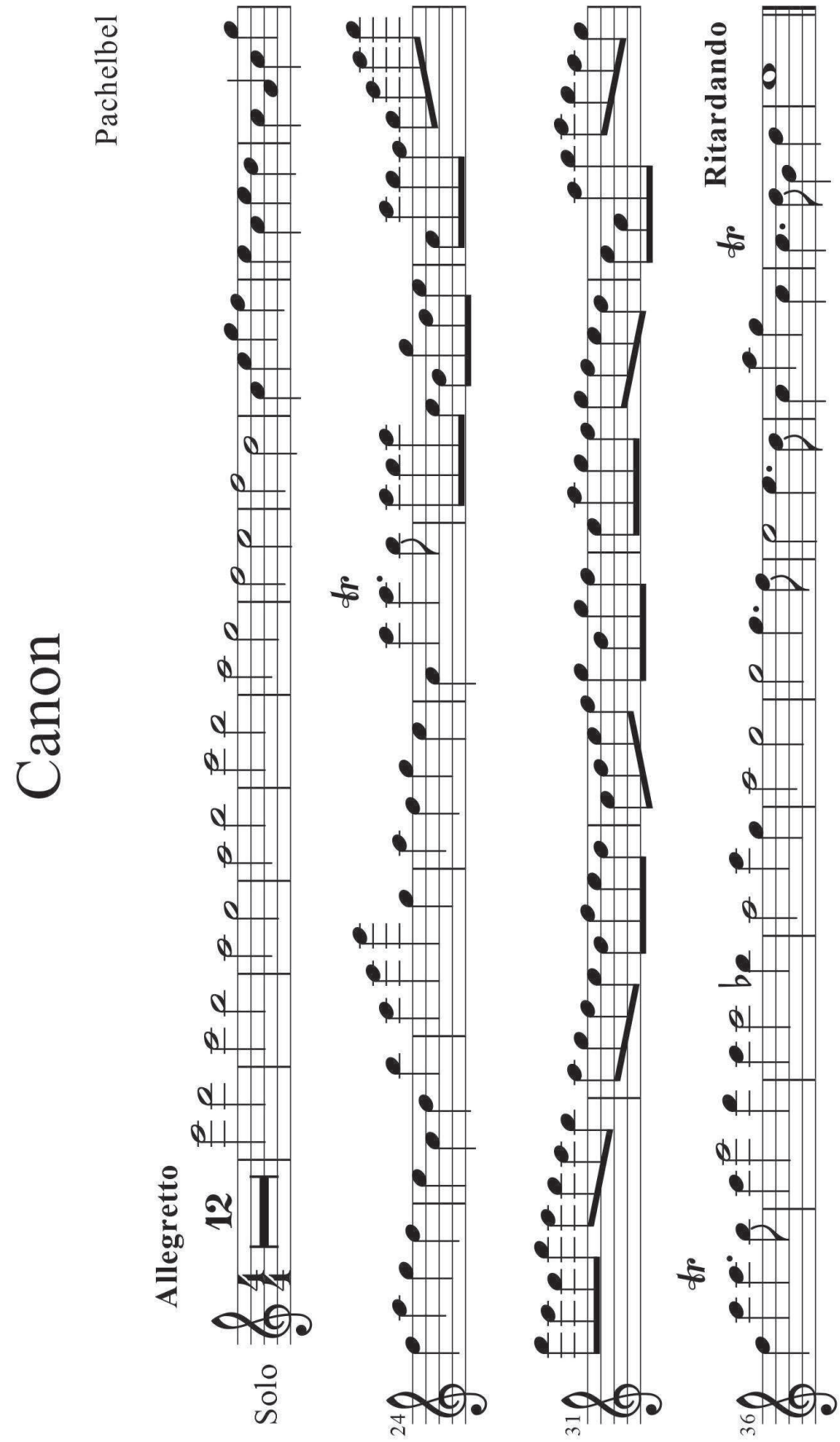
- Relax so that air can flow uninterrupted from your lungs, out through your throat.
- Breathe in deeply with abdominal breathing, retaining the air.
- Breathe out steadily as you sing, carrying the sound out of your body.
- Open your throat and feel the air flow freely through it.
- Maintain the air pressure in your larynx to avoid a wobbling or an out of tune voice
- Open your mouth wide. It acts as a loudspeaker to send amplified sound waves out of your body.
- Aim the sound to the back of the room.

Canon (Choir)

Pachelbel



This is the solo part. It is intended to be interpreted by someone who plays an instrument proficiently enough, whatever it is: flute, violin, piano, guitar, etc.



Some links to listen to with the eyes (and watching with the ears):

Eric Whitacre's Virtual Choir - 'Lux Aurumque'
http://www.youtube.com/watch?v=D7o7BrlbaDs

Earth Song by Frank Ticheli
http://www.youtube.com/watch?v=1VwQ0XRvtTk

Soweto Gospel Choir - Mbube
http://www.youtube.com/watch?v=dnFipFkWLgI

Soweto Gospel Choir - Oh Happy Day
http://www.youtube.com/watch?v=cLocKzC80gk

Harlem Gospel Choir – Amazing Grace
http://www.youtube.com/watch?v=aaKf6P2nhKg

We Are Gathered - A capella multitrack version
http://www.youtube.com/watch?v=bSE7cS8C_qw

Somebody That I Used To Know - One singer version
http://www.youtube.com/watch?v=oO3jYSm1kRI

Johann Pachelbel: Canon in D major (Jazz version)
http://www.youtube.com/watch?v=rozgjPlCC7U

Leeds Gospel Choir – Dig dig (5' to 12' 40'')
http://www.youtube.com/watch?v=us62Aj-KN4s

End of Unit Assessment

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For the next unit I must try to...

Teacher Comments:

Reflective Thinker:

- *You are evaluating your progress and looking for areas of improvement.*

Definitions & Vocabulary

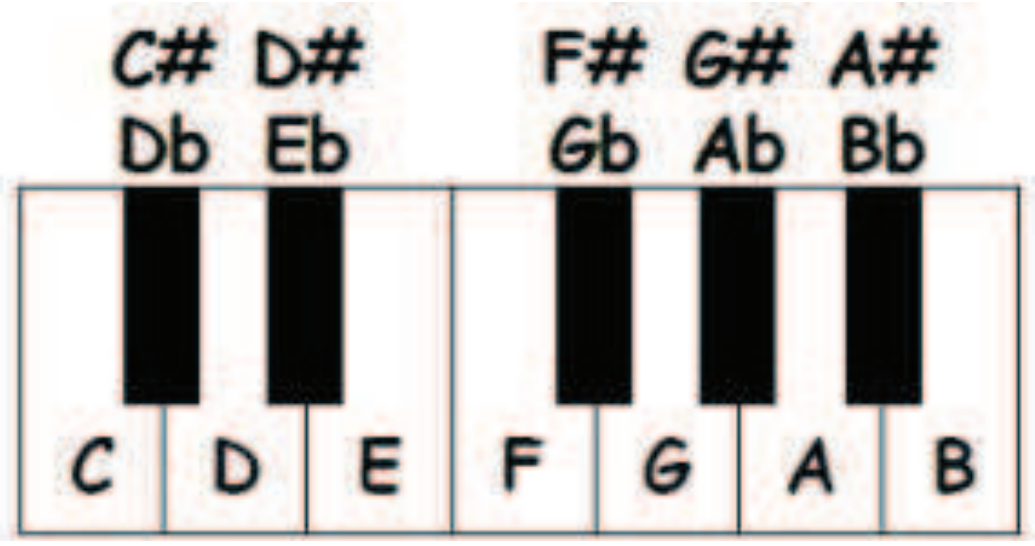
Quick Reference Guide

Note values

Whole-note	𝅝	4 beats	1 bar in 4/4 time signature
Half-note	𝅗𝅥	2 beats	½ bar in 4/4 time signature
Quarter-note	♩	1 beat	¼ bar in 4/4 time signature
Eighth-note	♪	½ beat	1/8 bar in 4/4 time signature

Adding a dot after a note adds half the value

Keyboard notes



♯ = sharp ♭ = flat

Chord Chart

	Notes to be played	Chord symbol
C major	C E G	C
D major	D F# A	D
E major	E G# B	E
F major	F A C	F
G major	G B D	G
A major	A C# E	A

	Notes to be played	Chord symbol
C minor	C Eb G	Cm
D minor	D F A	Dm
E minor	E G B	Em
F minor	F Ab C	Fm
G minor	G Bb D	Gm
A minor	A C E	Am

Guitar Chords Chart