GUIDE FOR THE EXAM OF UNIT 1

Here you have a guide with all the issues that we have seen in the first unit, in order to prepare the next exam

1) Sound and noise:

Sound: is a vibration that propagates as a wave through solids, liquids and gases.

Noise: is an unpleasant sound

The sound has regular waves and the noise irregular ones. With a sound we can identify the pitch, with a noise we can't.

2) Noise pollution:

It's the **excessive amount of sound** that happens regularly and interferes with normal activities (sleeping, conversation, studying). It can harm the quality of life and cause many health problems (hypertension, stress, hearing loss, sleep disturbances…). It is generally caused by industrialization, transportation, electrical appliances or social life.

3) Properties or characteristics of sound:

The pitch

It is the property of sound that depends on the **frequency** (number of vibrations per second). Its measurement unit is the **Hertz** (**HZ**). Depending on its pitch we can consider a sound as **high** or **low**. Human beings can hear frequencies from 20 to 20.000 Hz.

Infrasound: is a sound whose frequency is lower than 20 Hz.

Ultrasound: is a sound whose frequency is higher than 20.000 Hz.

The Duration

It is the property of sound that refers to long and short sounds. Depending on its duration we can consider a sound as **long** or **short**.

The Intensity or volume

It is the property of sound that depends on the **amplitude** (distance from the middle to the peak of the wave). Its measurement unit is the **decibel** (**dB**). Depending on its intensity we can consider a sound as **loud** or **soft**.

The **absolute threshold of hearing** (ATH) is the minimum sound level of a pure tone that a human ear can hear (10 dB). The **pain threshold pressure** is the pressure at which sound becomes painful for a listener (130 dB)**.**

The Timbre or tone colour

It is the property of sound that allows the listener to identify the instrument, the voice or the object that is producing the sound.

4) Dynamics:

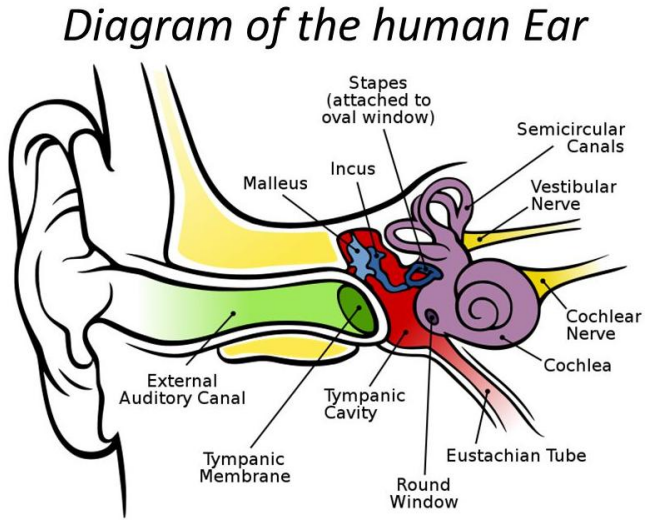
We call dynamics the **intensity** of every passage in a piece of music.

pp – p – mp – mf – f – ff 

5) Elements of communication:

Transmitter – Receiver – Message – Channel – Code

6) The Auditory System:



7) Draw different waves to represent high, low, loud and soft sounds.

8) Instruments and traditions of the Aragonese folklore.

9) Vocabulary:

- **Tuning fork:** is a piece of metal that produces a simple tone, usually the A 440 Hz. It is used to **tune** the instruments and as a reference for the voices in the choirs.

- **Sound Meter:** is an instrument with a microphone used for **measuring** sound level.

- **Reverberation:** is the **persistence** of a sound after it is produced. It is created when a sound is **reflected** until it is **absorbed** by surfaces or objects in the space.
- **Echo/echoes:** is a **reflection** of sound, arriving at the listener some time after the direct sound.
- **Resonance:** is a sound produced by an object vibrating in **sympathy** with a nearby source of sound.
- **Anechoic chamber:** is a room designed to completely absorb reflections of the sound. It is also insulated from exterior sources of noise.