

NJCCS Elements of Music

The compositional building blocks of music, including
texture, harmony, melody, and rhythm

Elements of Music and Vocabulary Terms

Pitch, rhythm, harmony, dynamics, timbre, texture, form.

<http://historyofmusic.tripod.com/id6.html>

Elements of Music:

Sounds may be perceived as pleasant or unpleasant.

What are these sounds that we hear? What is "sound"? What causes it, and how do we hear it?

-*Sound* begins with the vibration of an object, such as a table that is pounded or a string that is plucked.

-The vibrations are transmitted to our ears by a *medium*, which is usually air

-As a result of the vibrations, our eardrums start vibrating too, and *impulses*, or signals, are transmitted to the brain. There the impulses are selected, organized, and interpreted.

-Music is part of this world of sound, an art based on the organization of sounds in time.

Properties of musical sounds:

-We distinguish music from other sounds by recognizing the four main properties of musical sounds:

pitch, dynamics (loudness or softness), tone color, and duration.

- **Duration**: the length of time a musical sound lasts
- **Pitch** is the relative highness or lowness that we hear in a sound

-The pitch of a sound is determined by the frequency of its vibrations.

-The faster the vibrations, the higher the pitch; the slower the vibrations, the lower the pitch.

-Vibration frequency is measured in cycles per second.

-On a piano the highest-frequency tone is 4,186 cycles per second, and the lowest is about 27 cycles per second.

In general, the smaller the vibrating object, the faster its vibrations and the higher its pitch. All other things being equal, plucking a short string produces a higher pitch than plucking a long string. The relatively short strings of a violin produce higher pitches than do the longer strings of a double bass.

In music, a sound that has a definite pitch is called a **tone**. It has a specific frequency, such as 440 cycles per second. The vibrations of a tone are regular and reach the ear at equal time intervals.

Noiselike sounds (squeaking brakes or clashing cymbals) have an indefinite pitch because they are produced by irregular vibrations.

-Two tones will sound different when they have different pitches.

-The "distance" in pitch between any two tones is called an **interval**.

- When tones are separated by the interval called an *octave*, they sound very much alike.

The distance between the lowest and highest tones that a voice or instrument can produce is called its *pitch range*, or simply its **range**.

-The range of the average untrained voice is between 1 and 2 octaves;

-A pianos range is over 7 octaves.

-When men and women sing the same melody, they usually sing it an octave apart.

Though most music we know is based on definite pitches, indefinite pitches such as those made by a bass drum or by cymbals are important as well. Some percussion instruments, such as gongs, cowbells, and wood-blocks, come in different sizes and therefore produce higher or lower indefinite pitches. Contrasts between higher and lower indefinite pitches play a vital role in twentieth-century western music and in musical cultures around the world.

- **Dynamics**: Degrees of loudness or softness in music are called *dynamics* our second property of sound.

-Loudness is related to the amplitude of the vibration that produces the sound. The harder a guitar string is plucked (the farther it moves from the fingerboard), the louder its sound. When instruments are played more loudly or more softly, or when there is a change in how many instruments are heard, a dynamic change results; such a change may be made either suddenly or gradually.

Crescendo: A gradual increase in loudness. It often creates excitement, particularly when the pitch rises too.

Decrescendo: a gradual decrease in loudness. It can be used to convey a sense of calm.

When notating music, composers have traditionally used Italian words, and their abbreviations, to indicate dynamics. The most common terms are:

For extremes of softness and loudness, composers use **ppp** or **pppp** and **fff** or **ffff**. The following notations indicate gradual changes in dynamics:

- **Tone Color**

We can tell a trumpet from a flute even when each of them is playing the same tone at the same dynamic level. The quality that distinguishes them our third property of musical sound is called *tone color*, or *timbre* (pronounced *tam-ber*). Tone color is described by words like *bright*, *dark*, *brilliant*, *mellow*, and *rich*.

Like changes in dynamics, changes in tone color create variety and contrast. When the same melody is played by one instrument and then by another, it takes on different expressive effects because of each instruments tone color. On the other hand, a contrast in tone color may be used to highlight a new melody: after violins play a melody, an oboe may present a contrasting one.

Tone colors also build a sense of continuity; it is easier to recognize the return of a melody when the same instruments play it each time. Specific instruments can reinforce a melody's emotional impact: the brilliant sound of a trumpet is suited to heroic or military tunes; the soothing tone color of a flute fits the mood of a calm melody. In fact, composers often create a melody with a particular instruments tone color in mind.

A practically unlimited variety of tone colors is available to composers. Combining different instruments violin, clarinet, and trombone, for example results in new colors that the instruments cannot produce by themselves. And tone color can be changed by varying the number of instruments or voices that perform a melody. Finally, electronic techniques developed in recent years allow composers to create colors completely unlike those of traditional instruments.

ELEMENTS OF MUSIC:

- ***Rhythm, Melody, Harmony, Key, Texture, Form.***

Rhythm is the flow of music through time.

Rhythm has several interrelated aspects: *beat, meter, accent and syncopation, and tempo.*

Beat: is a regular, recurrent pulsation that divides music into equal units of time. When you clap your hands or tap your foot to music, you are responding to its beat.

A note may last a fraction of a beat, an entire beat, or more than a beat. More specifically, ***rhythm*** can be defined as the particular arrangement of note lengths in a piece of music. The rhythm of a melody is an essential feature of its personality.

Meter: In music we find a repeated pattern of a strong beat plus one or more weaker beats. The organization of beats into regular groups is called ***meter***.

A group containing a fixed number of beats is called a ***measure***. There are several types of meter, which are based on the number of beats in a measure.

When a measure has 2 beats, it is in ***duple meter***; we count 12, 12,

The first, or stressed, beat of the measure is known as the ***downbeat***.

A pattern of 3 beats to the measure is known as ***triple meter***. All waltzes are in triple meter, we count 123, 123, etc.

Another basic metrical pattern is ***quadruple meter***, which has 4 beats to the measure. As usual, the downbeat is strongest; but there is another stress on the third beat, which is stronger than the second and fourth beats and weaker than the first: 1234, 1234.

Upbeat (Anacrusis) is an unaccented pulse preceding the downbeat.

Sextuple meter contains six rather quick beats to the measure. The downbeat is strongest, and the fourth beat also receives a stress: 123456.

Quintuple meter, with 5 beats to the measure, and **septuple meter**, with 7 beats to the measure, occur frequently in twentieth-century music and are found occasionally in earlier music. Each of these meters combines duple and triple meter. In quintuple meter, for example, the measure is subdivided into groups of 2 and 3 beats: **123/45** or **12/345**.

Accent and Syncopation: An important aspect of rhythm is the way individual notes are stressed how they get special emphasis. A note is emphasized most obviously by being played louder than the notes around it, that is, by receiving a dynamic **accent**.

When an accented note comes where we normally would *not* expect one, the effect is known as **syncopation**.

A syncopation also occurs when a weak beat is accented, as in **1234** or **1234**.

Tempo: is the speed of the beat, the basic pace of the music.

A fast tempo is associated with a feeling of energy, drive, and excitement. A slow tempo often contributes to a solemn, lyrical, or calm mood.

A **tempo indication** is usually given at the beginning of a piece. As with dynamics, the terms that show tempo (at the left) are in Italian.

<i>largo</i>	very slow, broad
<i>grave</i>	very slow, solemn
<i>adagio</i>	slow
<i>andante</i>	moderately slow, a walking pace
<i>moderato</i>	moderate
<i>allegretto</i>	moderately fast
<i>allegro</i>	fast
<i>vivace</i>	lively
<i>presto</i>	very fast
<i>prestissimo</i>	as fast as possible

Qualifying words are sometimes added to tempo indications to make them more specific. The two most commonly used are *molto* (*much*) and *non troppo* (*not too much*). We thus get phrases like *allegro molto* (*very fast*) and *allegro non troppo* (*not too fast*).

A gradual quickening of tempo may be indicated by writing ***accelerando*** (*becoming faster*), and a gradual slowing down of tempo by ***ritardando*** (*becoming slower*).

An *accelerando*, especially when combined with a rise in pitch and volume, increases excitement, and a *ritardando* is associated with less tension and a feeling of conclusion.

Metronome, an apparatus which produces ticking sounds or flashes of light at any desired musical speed. The metronome setting indicates the exact number of beats per minute.

Melody:

After hearing a piece of music, we usually remember its melody best. **melody** is a series of single tones which add up to a recognizable whole. A melody begins, moves, and ends; it has direction, shape, and continuity. The up-and-down movement of its pitches conveys tension and release, expectation and arrival. This is the melodic *curve*, or *line*.

-A melody moves by small intervals called steps or by larger ones called leaps. A step is the interval between two adjacent tones in the do-re-mi scale (from do to re, re to mi, etc.). Any interval larger than a step is a leap (do to mi, for example). Besides moving up or down by step or leap, a melody may simply repeat the same note.

-A melody's *range* is the distance between its lowest and highest tones. Range may be wide or narrow.

-Melodies written for instruments tend to have a wider range than those for voices, and they often contain wide leaps and rapid notes that would be difficult to sing.

How the tones of a melody are performed can vary its effect, too. Sometimes they are sung or played in a smooth, connected style called **legato**. Or they may be performed in a short, detached manner called **staccato**.

Spiccato: it is a technique used only by string instruments to perform very short notes.

-Many melodies are made up of shorter parts called **phrases**.

-A resting place at the end of a phrase is called a **cadence**.

Incomplete cadence: sets up expectations; the second phrase ends with a **Complete cadence**: gives an answer, a sense of finality.

Often the highest tone of a melody will be the **climax**, the emotional focal point.

-A repetition of a melodic pattern on a higher or lower pitch is called a **sequence**. This is an impelling device of varied repetition that gives a melody a strong sense of direction.

Frequently, a melody will serve as the starting point for a more extended piece of music and, in stretching out, will go through all kinds of changes. This kind of melody is called a **theme**.

When folksingers accompany themselves on a guitar, they add support, depth, and richness to the melody. We call this **harmonizing**. Most music in western culture is a blend of melody and harmony.

Harmony:

refers to the way chords are constructed and how they follow each other.

-A **chord** is a combination of three or more tones sounded at once.

Essentially, a chord is a group of simultaneous tones, and a melody is a series of individual tones heard one after another.

Consonance and Dissonance

Some chords have been considered stable and restful, others unstable and tense.

-A tone combination that is stable is called a **consonance**. Consonances are points of arrival, rest, and resolution.

-A tone combination that is unstable is called a **dissonance**.

-A dissonance has its **resolution** when it moves to a consonance. When this resolution is delayed or accomplished in unexpected ways, a feeling of drama, suspense, or surprise is created. In this way a composer plays with the listeners sense of expectation.

-Dissonant chords are active and move music forward. Traditionally they have been considered harsh and have been used in music that expresses pain, grief, and conflict.

Now that consonance and dissonance have been defined, be aware that they can exist in varying degrees. Some consonant chords are more stable than others, and some dissonant chords are more tense than others. Dissonant chords have been used with increasing freedom over the centuries, so that

often a chord considered intolerably harsh in one period has later come to seem rather mild.

The Triad

A great variety of chords have been used in music. Some chords consist of three different tones; others have four, five, or even more. Depending on their makeup, chords sound simple or complex, calm or tense, bright or dark.

The simplest, most basic chord is the **triad** (pronounced *try-ad*), which consists of three tones.

The bottom tone is called the *root*; the others are a third and a fifth above the root.

-A triad built on the first, or tonic, note of the scale (*do*) is called the **tonic chord**.

The triad built on the fifth note of the scale (*sol*) is next in importance to the tonic. It is called the **dominant chord** (*sol-ti-re*). The dominant chord is strongly pulled toward the tonic chord. This attraction has great importance in music. A dominant chord sets up tension that is resolved by the tonic chord.

A progression from dominant chord to tonic chord is called a **cadence**. The word *cadence* means both the resting point at the end of a melodic phrase and a chord progression that gives a sense of conclusion.

Broken Chords (Arpeggios): When the individual tones of a chord are sounded one after another, it is called a broken chord, or arpeggio. Arpeggios may appear in the melody or in the accompaniment.

-The central tone is the **keynote**, or **tonic**, of the melody. When a piece is in the key of C, for example, C is the keynote, or tonic. The keynote can also be E, or A, or any of the twelve tones that fill the octave in western music.

Key: involves not only a central tone but also a central scale and chord. A piece in the key of C has a basic scale, do-re-mi-fa-sol-la-ti-do, with C as its do, or tonic. Key, then, refers to the presence of a central note, scale, and chord within a piece. Another term for key is tonality.

After 1900, some composers abandoned the traditional system, but even today much of the music we hear is built around a central tone, chord, and scale.

Practically all familiar melodies are built around a central tone. The other tones of the melody gravitate toward this central one. Since the central tone is especially stable and restful, a melody usually ends on it.

Modulation: Change of Key

Shifting from one key to another within the same piece is called ***modulation***. A modulation is like a temporary shift in the center of gravity. When the music starts out in the key of C major, for instance, C is the central tone, and the C major scale and chord predominate. With a modulation to G major, G temporarily becomes the central tone, and the G major scale and chord are now the main ones. Though modulations are sometimes subtle and difficult to spot, they produce subconscious effects that increase our enjoyment of the music.

Texture: Homophonic, Polyphonic, Monophonic

Polyphonic Texture

Simultaneous performance of two or more melodic lines of relatively equal interest produces the texture called ***polyphonic***, meaning *having many sounds*. In polyphony several melodic lines compete for attention. (When several jazz musicians improvise different melodies at once, they produce polyphony.)

The technique of combining several melodic lines into a meaningful whole is called ***counterpoint***.

The term *contrapuntal texture* is sometimes used in place of *polyphonic texture*

Polyphonic music often contains ***imitation***, which occurs when a melodic idea is presented by one voice or instrument and is then restated immediately by another voice or instrument.

Homophonic Texture: When we hear one main melody accompanied by chords, the texture is ***homophonic***.

Monophonic Texture: When we hear one main melody without accompaniment, the texture is ***monophonic***.

Form:

in music is the organization of musical elements in time. In a musical composition, pitch, tone color, dynamics, rhythm, melody, and texture interact to produce a sense of shape and structure.

Techniques That Create Musical Form

Repetition, contrast, and variation are essential techniques in short tunes as well as in compositions lasting much longer. **Repetition** creates a sense of unity; **contrast** provides variety; and **variation**, in keeping some elements of a musical thought while changing others, gives a work unity and variety at the same time.

Repetition: In music the repetition of melodies or extended sections is a technique widely used for binding a composition together. Through repetition, a melody is engraved in the memory.

Contrast: Forward motion, conflict, and change of mood all come from contrast. Opposition of loud and soft, strings and woodwinds, fast and slow, major and minor propels and develops musical ideas. A composer can emphasize the power and excitement of one musical idea by contrasting it with another idea that is calm and lyrical

Variation: In the variation of a musical idea, some of its features will be retained while others are changed. For example, the melody might be restated with a different accompaniment. Or the pitches of a melody might stay the same while its rhythmic pattern is changed. A whole composition can be created from a series of variations on a single musical idea.

Types of Musical Form

Three-Part (Ternary) Form: A B A. During the last few centuries **three-part form (A B A)** has probably been used most frequently. This form can be represented as *statement* (A), *contrast* or *departure* (B), *return* (A).

Two-Part (Binary) Form: A B. A composition subdivided into two large sections is in **two-part form (A B)**. Two-part form gives a sense of *statement* (A) and *counterstatement* (B).

The Instruments of the Orchestra:

We can divide the instruments of the orchestra in four families :
(This classification is made by the way the sound is produced)

-The String Family:

- Violin
- Viola
- Cello
- Double bass

-The Woodwind Family:

- Flute and Piccolo
- Clarinet and Bass Clarinet
- Oboe and English Horn
- Bassoon and Contrabassoon

-The Brass family:

- Trumpet and cornet
- French Horn and baritone Horn
- Trombone
- Tuba

-The Percussion Family

Definite Pitch:

- Timpani (Kettledrums)
- Glockenspiel
- Xylophone
- Celesta
- Chimes

Indefinite Pitch:

- Snare Drum
- Bass Drum
- Tambourine
- Triangle
- Cymbals
- Gong (tam-tam)

Musical Elements Song

The concept of musical elements proved to be a tricky concept for the children in my class, so the music teacher made up this song to help them. She taught each verse as they were learning about that aspect of music. By the end of the term the children knew the complete song. They love singing the song and it helped them to talk about the music that they were composing themselves.

The words should be sung to the tune of Twinkle, twinkle little star.

Pitch means sound are high or low.

Tempo means go fast or slow.

Dynamics can go with a BANG!

Or make a sound as quietly as you can.

Pitch means sounds are high or low.

Tempo means go fast or slow.

Over and over and over again

Ostinato is the name.

Duration can be short or long

The length of sounds in a tune or a song.

Over and over and over again

Ostinato is the name.

Rhythm makes a pattern of sounds.

(Clap clap-clap clap clap/clap-clap clap clap)

Pulse will keep a steady beat

Sounds like slowly marching feet.

Rhythm makes a pattern of sounds.

(Clap clap-clap clap clap/clap-clap clap clap)

Timbre is quite hard to say.

Listen to the instruments play

Bright and bold, harsh or hollow.

Maybe gentle, warm or mellow.

Timbre is quite hard to say.

Listen to the instruments play.