

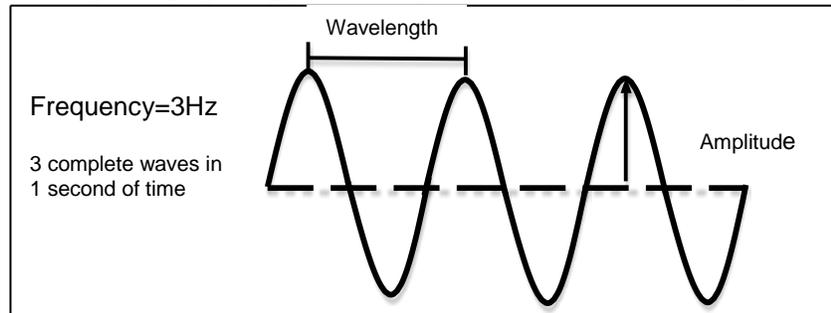
THE CIRCLE OF FIFTHS

In the sixth century BCE, the Greek scholar and philosopher Pythagoras decided to try to make things easier for everyone by **standardizing** musical tuning. He had already discovered pitch frequencies in musical instruments by vibrating different lengths of string, and he had defined what exactly an octave was, so he figured this was the next logical step and created something that is now called the *Pythagorean Circle*, which eventually led to the more common Circle of Fifths.

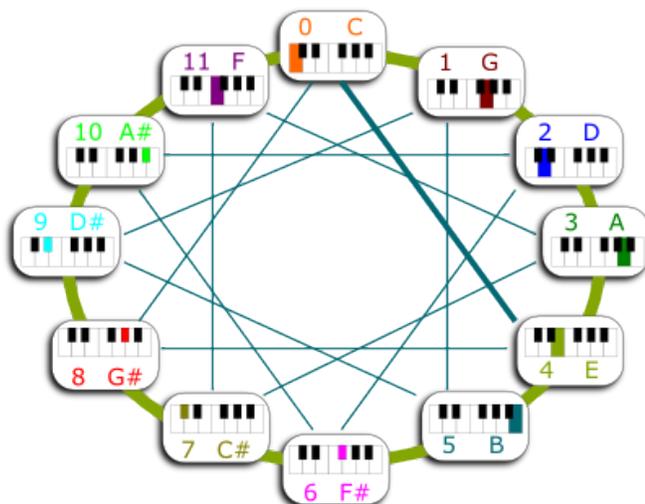
Pythagoras and Music

A quick lesson in sound

- Vibration of air (no air = no sound)
- Range of hearing from 20 vibrations per second to 20,000
- The faster the vibrations, the 'higher' we hear the sound
- Frequency (pitch) often expressed as 'Wavelength'



Each of the 12 points around the circle was assigned a pitch value. This roughly corresponds to the present system of an octave with 12 half-steps. The creation and use of the Circle of Fifths is the very foundation of Western music theory because it sets distances between notes, known as **intervals**. It also helps musicians recognize key signatures on sight. It's just as **essential** in writing music because it is very helpful in composing and **harmonizing** melodies, building **chords**, and moving to different **keys** within a composition.



Basic Intervals of Musical Harmony

Perfect Fifth 

Major Third 

The Major Scale

A musical staff in treble clef showing the major scale: Do, Re, Mi, Fa, Sol, La, Ti, Do. Fingerings are indicated below each note: 1, 2, 3, 4, 5, 6, 7, 8(1). Brackets on the left side, labeled 'Simple Intervals', connect notes to show intervals: maj 2nd (Do-Re), major 3rd (Do-Mi), perfect 4th (Do-Fa), perfect 5th (Do-Sol), major 6th (Do-La), major 7th (Do-Ti), and perfect octave (Do-Do).

NOTE & REST CHART

Name	Note	Rest	Beats	1 $\frac{4}{4}$ measure
Whole			4	
Half			2	
Quarter			1	
Eighth			$\frac{1}{2}$	

	meter signature	beat unit	division of the beat
Simple Duple	$\frac{2}{4}$		
Compound Duple	$\frac{6}{8}$		
Simple Triple	$\frac{3}{4}$		
Compound Triple	$\frac{9}{8}$		
Simple Quadruple	$\frac{4}{4}$		

Dotted Notes

A note with a dot after it makes it 1.5 times as long as the same note without a dot.

How many quarter notes would equal a dotted half note? _____

How many eighth notes would equal a dotted half note? _____

Featured Composers

Franz Joseph Haydn is remembered as the first great symphony composer and is credited with essentially inventing the string quartet. Starting in about 1757 and continuing until 1806, three years before his death, Haydn composed 68 string quartets. As with his symphonies, Haydn used the quartets to develop the Classical Style, and like the symphonies, many of the quartets have been given individual names such as the 'Sun', the 'Prussian' and the 'Apponyi'.



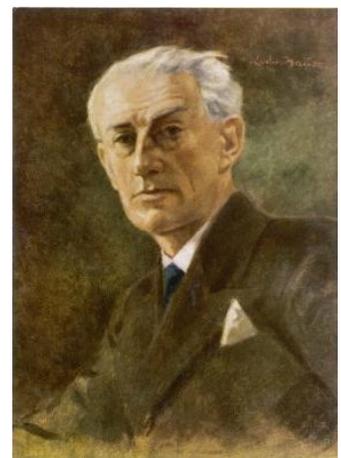
Pyotr Iltch Tchaikovsky was born on May 7, 1840 in a small town in the Ukraine. (The English word for Pyotr is Peter.)



Peter taught himself to play the piano and complained he could not turn off the music he heard in his head. When he was forbidden from playing the piano, he would continue to tap out tunes on any available surface. One time he tapped so vigorously on a window that he broke it and cut his hand. Then his parents decided it was time to let him have piano lessons.

Tchaikovsky gave the world some of its most beautiful music. It incorporated the Russian spirit and flavor. His music was very popular because it was fun and exciting. The Russian people understood and loved his music, as did many Europeans. He was often asked to compose for special events.

Maurice Ravel was born on March 7, 1875, in Ciboure, France and became one of the most widely popular of all French composers. Ravel was admitted to the Paris Conservatoire at age 14 and continued to study there until his early 20s. During this time he composed some of his most renowned works including his *String Quartet* (1903), which is played in F major and includes four movements.



Ravel's later works include orchestral pieces *Rapsodie Espagnole* and *Boléro*. He was commissioned by Sergey Diaghilev to create the ballet *Daphnis et Chloé*, which he completed in 1912 and became his most famous work. Eight years later, in 1920, he completed *La Valse*, a piece with varying credits as a ballet and concert work. He died in Paris in 1937.

(Source: www.biography.com)

Ludwig van Beethoven was born in 1770 into a very musical family in Bonn, now the capital of Germany. His father taught him to play the piano and organ. Ludwig played the piano **exceptionally** well at an early age. He performed his first public piano concert at the age of seven. By twelve years old, he was already composing music.

By the age of 18, Beethoven was the **primary** support for his family. He performed in concerts, gave piano lessons and composed music. He went to Vienna, Austria, to meet Mozart (his musical idol) who told his wife that this **brilliant** pianist would change how people thought about music for **centuries**.



When he was 26, Beethoven noticed an annoying ringing and buzzing in his ears. He went to many doctors who couldn't help him. By the age of 48, he was almost completely deaf. Although he had to give up his career as a pianist and conductor, he continued to compose all the time.

Beethoven composed some of his grandest music when he was partially or completely deaf. He seemed to be writing music for an unseen audience. His music was often so difficult that many musicians had trouble playing it. People loved the sound of Beethoven's music.

The composer died at the age of 56. Over 20,000 people attended his funeral. His music would not only be enjoyed but improve humanity. Beethoven was truly a hero.

Vocabulary

brilliant – very bright or smart	key – the notes used in a section of music based upon a scale starting on a given note
essential – something very important that needs to be in place	philosopher – a person who thinks and writes about life
essentially – for the most part	primary - most important
exceptionally – refers to something that stands out	scale – a set of notes upon which a musical composition is based
century – one hundred years	scholar - a person who is an expert in a field of study
chord – three or more notes played together, usually based upon intervals of 3rds and 5ths	standardize – come up with a set of rules that works across most common situations
harmonize – put notes together according to what kind of sound a composer wants to create	waltz – a popular European ballroom dance in triple meter
interval – the distance between two notes based upon how many half steps they are apart	

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