

Lecture #2 – Music Fundamentals – Part I

I. Introduction

In this lesson, we will begin to explore how music works, how it is recorded in print, and its various terminology and symbols.

For these lectures on fundamental music theory, we will be using information from *Practical Music Lessons* by Luther A. Harrison and B.B. McKinney and published in 1950. Surprisingly, the copyright seems to have not been renewed by the publisher. The book is a series of lessons on music “especially adapted for the training of singers and leaders of church music.” I have done some editing¹ and adjustments to personalize the information.

Music theory can be overwhelming, and you may need some extra time or help grasping some of the concepts. There are many free resources available online today that can help. Besides simply searching YouTube, here are a few I found:

- <https://www.khanacademy.org/humanities/music/music-basics2>
- <https://www.musictheory.net>
- <https://www.musicca.com>

II. Foundational Music Theory from *Practical Music Lessons*

Elements of Music

1. "Music is the universal language of mankind." – Henry Wadsworth Longfellow

Its chief elements are rhythm, melody, and harmony.

2. A sound is produced by vibrations of the air and is divided into two classes – musical and unmusical. A musical sound is produced by regular vibrations. A noise, or an unmusical sound, is produced by irregular vibrations.

Tone and Its Properties

3. A *tone* is a sound of regular vibrations, or any sound having pitch.

¹ I am preserving the original numbering system even when I rearrange it.

It has four essential properties: length, pitch, power, and quality.

(1) *Length* when applied to a tone means duration, whether long or short.

(2) *Pitch* means highness or lowness.

(3) *Power* means audibility, whether loud or soft.

(4) *Quality* means character, whether firm, joyful, somber, sad, etc.

NOTE: Tones may have the same pitch but differ in character, as the violin differs from the piano, organ, or voice. This difference is called quality.

Departments of Music

4. As in other sciences, music has divisions or departments. These departments are rhythemics, melodics, and dynamics.

(1) *Rhythemics* deals with the length of tones.

(2) *Melodics* deals with the pitch of tones.

(3) *Dynamics* deals with the power and quality of tones.

5. *Theory* deals with the fundamental principles of music.

6. *Rhythm* is the regular recurrence of accent.

7. *Melody* is the combination of tones sounded in succession according to the rules of rhythm. Melody is the essence of all music.

8. *Harmony* is a combination of two or more tones which produces a pleasing effect when sounded simultaneously.

III. Practical Music Lessons – Basic Notation

Notes and Rests















9. Notes and rests are characters used in writing and reading music. By their use we are able to produce rhythm, melody, harmony, all of which are necessary in the science of music.

(1) A *note* is a character used to represent the length of a tone

(2) A *rest* is a character used to represent a length of time passed in silence.

Seven notes and an equal number of rests are used in music. They are called: *whole, half, quarter, eighth, sixteenth, thirty-second, and sixty-fourth.*² They are represented in the following illustrations.

Illustration 1

A Whole Note		is an open face note.
A Whole Rest		is a block usually placed below the 4th line.
A Half Note		is an open face note with a stem.
A Half Rest		is a block usually placed above the 3rd line.
A Quarter Note		is a closed face note with a stem, and is about a pulse-beat in length.
A Quarter Rest		is similar to a reversed Z or a reversed seven.
An Eighth Note		is a closed face note with a stem and one flag.
An Eighth Rest		is similar to the figure seven. It is a stem with one flag to the left.
A Sixteenth Note		is a closed face note with a stem and two flags.
A Sixteenth Rest		is a stem with two flags to the left.
A Thirty-second Note		is a closed face note with a stem and three flags.
A Thirty-second Rest		is a stem with three flags to the left.
A Sixty-fourth Note		is a closed face note with a stem and four flags.
A Sixty-fourth Rest		is a stem with four flags to the left.

Note: The Whole Rest is sometimes used as a Whole Measure Rest. When used in this manner, it indicates that the whole measure is passed in silence regardless of the number of beats which belong to it.

Some Tips and Tricks For Recognizing Notes and Rests

A whole note has a “hole” in it.

An easy way to tell the difference between a half rest and a whole rest is a half rest looks like a hat and a whole rest looks like a whole.

² You will practically never see the thirty-second or sixty-fourth notes/rests in congregational music.



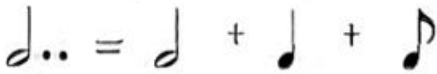


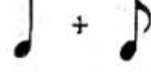
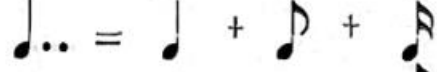


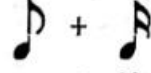
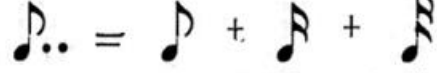

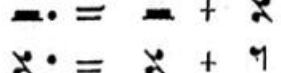
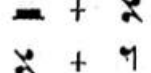
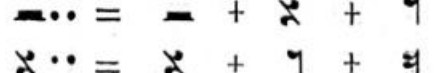
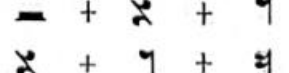
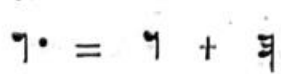

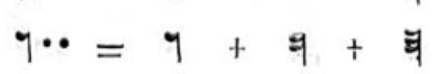
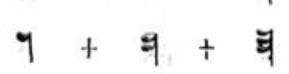
Each “flag” added to a note or rest divides it in half: one flag is an eighth note, two flags is a sixteenth note, three flags is a thirty-second note, and so on.

Dotted Notes and Rests

A dot placed after a note or a rest adds one half to its value.

A second dot³ adds one half of the value of the first dot.

Illustration 2

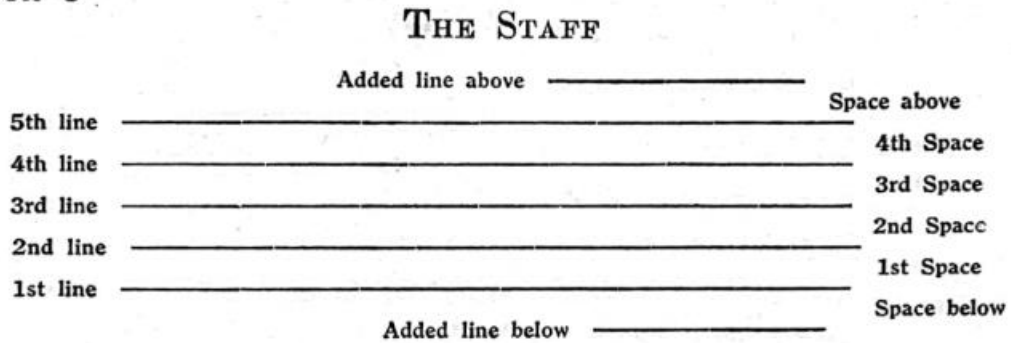
<i>The Dot</i>			<i>The Double Dot</i>			
	=			=		
	=			=		
	=			=		<i>etc.</i>
	=			=		
	=			=		<i>etc.</i>

Staff

10. The musical staff is composed of five parallel horizontal lines and their accompanying spaces on which the characters of music are written. Each line and each space is called a *degree*. They are numbered from the bottom line up as: *first line, first space, second line, second space*, etc. The staff may be enlarged, when necessary, by *ledger*, or added, lines below or above as indicated in the following illustration

³ These are very rare, and will likely never occur in congregational music.

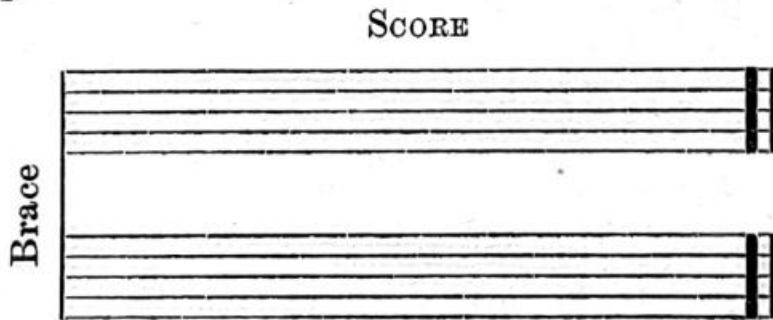
Illustration 3



Score

11. A *score* is one or more staves once across the page joined together by a vertical line at the left called a *brace*.

Illustration 4



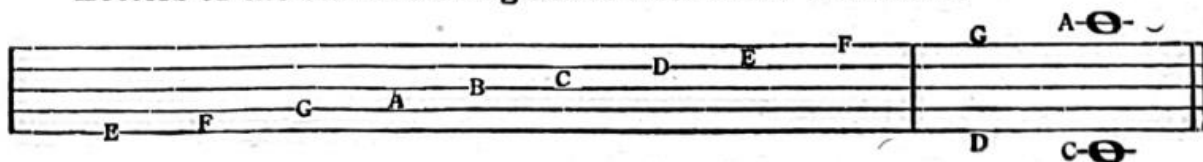
Letter Names

12. The lines and spaces of the staff have letter names. The first seven letters of the alphabet are used for their names. These letter names never change. They should be memorized by all students of music.

Here is an example of letter names on a Treble Clef.

Illustration 5

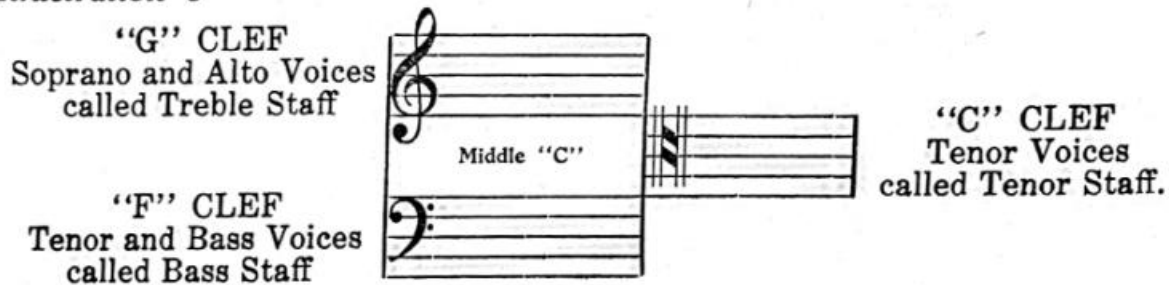
Letters of the staff including added lines below and above.



Clefs

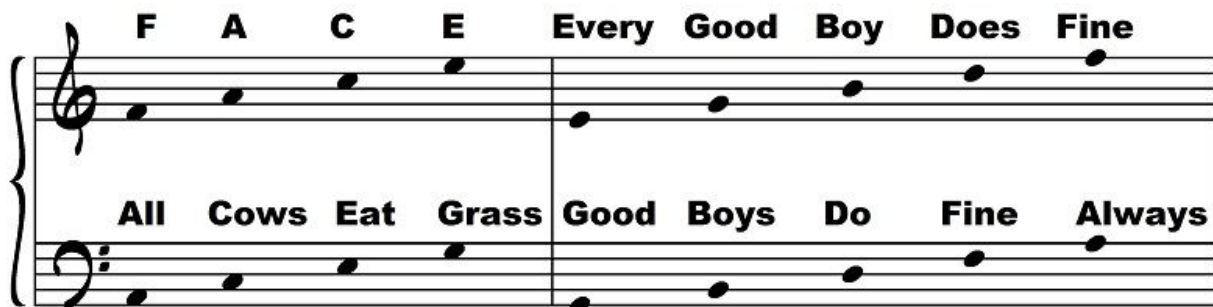
13. The *clef* is a sign written at the beginning of the staff in order to indicate the pitch of the notes.
14. *Treble Clef*⁴ is always drawn to circle around the second line of the staff. It establishes the pitch of G on that line and represents the soprano and alto voices.
15. *Bass Clef*⁵ is placed on the fourth line of the staff and has a dot on either side of that line. It establishes the pitch of F and represents the tenor and bass voices.
16. *Alto or Tenor Clef*⁶ is usually placed on middle C and is one octave lower than the treble staff. It establishes the pitch of C on middle C and represents the tenor voices. This clef is used in quartet music for men and in anthem form but is seldom used in hymn form.

Illustration 6



Tricks for Clefs

There are some mnemonic devices to remembering the names of the notes on the lines and spaces of each clef:

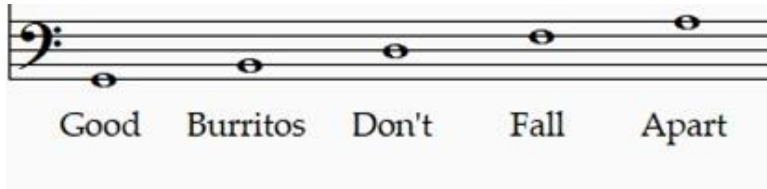


⁴ Sometimes called G Clef. Its symbol was originally the Gothic letter **G**.

⁵ Sometimes called F Clef. Its symbol was originally the Gothic letter **F**.

⁶ Sometimes called C Clef. Its symbol was originally a Gothic letter **C**. Can be found in some choral or specialized arrangements (such as for a men's group).

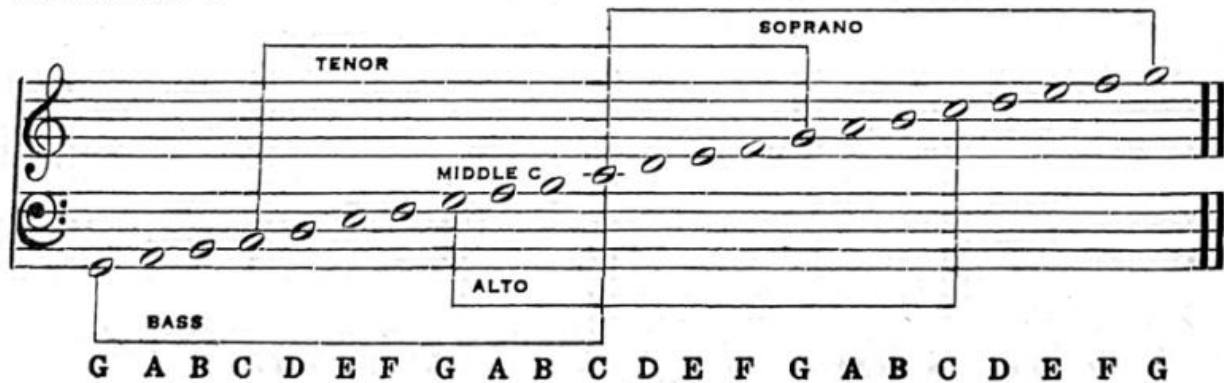
This is the best one ever:



Division of Voices

17. Voices are divided into four general classes: *soprano*, *alto*, *tenor*, and *bass*.
18. The voices of women and children are naturally an octave higher than the voices of men.
19. Middle C is the name of the pitch which all voices have in common. It is the middle of the great vocal compass, and women can sing as many tones above it as men can sing below it.
20. The vocal compass consists of about three octaves and is generally divided as shown in Illustration 7:

Illustration 7



IV. Practical Music Lessons – Tones and Keys

Scale

21. A *scale*, or tone ladder, is a series or succession of tones arranged according to an established order or rule, ascending or descending.
22. There are many forms of scales in use but we are to deal at present with that particular form known as the *major scale*.

Intervals

23. An interval is the difference in pitch from one tone to another. The standard of measure for intervals is the *half-step*, the *whole step*, and the *step-and-a-half*.

24. The *major scale* consists of eight tones and seven intervals and is arranged as follows: from the first to the second degree and from the second to the third degree are whole steps; from the third to the fourth degree is a half-step; from the fourth to the fifth degree, from the fifth to the sixth, from the sixth to the seventh are whole steps; from the seventh to the eighth degree is a half-step. A good method for memorizing the formula is: The half-steps come between 3 and 4, and 7 and 8; all the others are whole steps. A scale composed of its regular members is called a *diatonic scale*.

Illustration 8

MAJOR DIATONIC SCALE



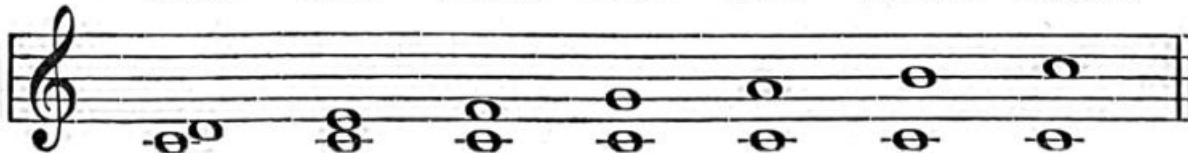
25. The scale may be built on any degree of the staff. Every Major scale, no matter upon what degree it begins, must be constructed so that the half-step will be between 3 and 4, and 7 and 8 (see illustration 8).

26. An interval is named according to the number of letters or degrees included. The interval from C to D is called a *second*; from C to E is a *third*, from C to F is a *fourth*, from C to G is a *fifth*, from C to A is a *sixth*, from C to B is a *seventh*, from C to C is an *eighth*, better known as an octave. These are the intervals to be found in the major scale.

Illustration 9

Intervals of the Major Scale.

Second Third Fourth Fifth Sixth Seventh Octave



27. Intervals are counted from the lower note upward

Pitch Names

28. There are three kinds of pitch names of the scale:

- (1) *Numeral names*: 1, 2, 3, 4, 5, 6, 7, (8),
- (2) *Syllable names* (a.k.a. *solfege*): *do, re, mi, fa, sol, la, ti, (do)*.
- (3) *Letter names*: A, B, C, D, E, F, G, (A).

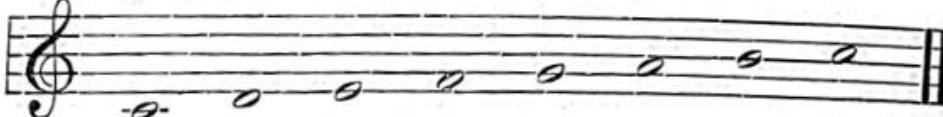
29. The numeral and syllable names are relative. They are changeable.

30. The letter names are absolute. They are unchangeable.

Illustration 10

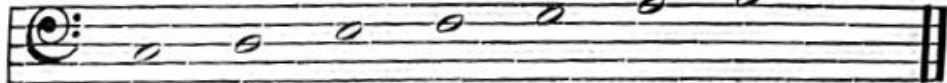
SCALE OF C Represented on the Staff with G and F Clefs

G Clef



Relative	{	1	2	3	4	5	6	7	8
Pitch Names	{	Do	Re	Mi	Fa	Sol	La	Ti	Do.
Absolute	{	C	D	E	F	G	A	B	C
Pitch Names	{								

F Clef



Key, Keynote, and Key Signature

31. The tone or letter on which a scale is built is taken for number 1 of the scale and is called the *keynote*. Keynote comes from the word “key.”

32. A *key* is a series or a family of tones bearing a certain fixed relationship which clusters about a certain tone called the keynote.

33. *Keynote*: The key is named after the note upon which the key is built. If the keynote is C, the key is named C; if the keynote is F, the key is named F.

34. *Do*, or 1, is the keynote in the major scale.

35. *Signature* means the sign of the key, and the sign is the condition of the staff just at the right of the clef which is called the *signature place*.

36. The tones of the key are all represented in the signature place. If the degrees of the staff in the signature place are all in their normal condition, the signature is natural and the key is C, because all of the tones of the key of C are represented in the signature place.

37. The signature of the key of C is natural

Illustration 11

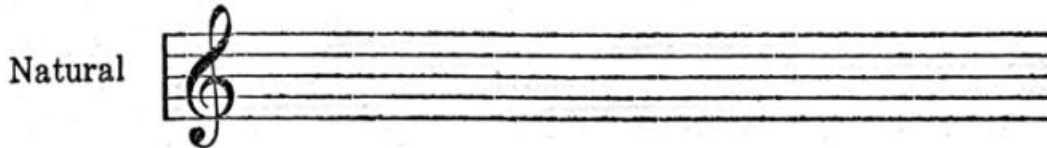


Illustration 12

SCALE OF C

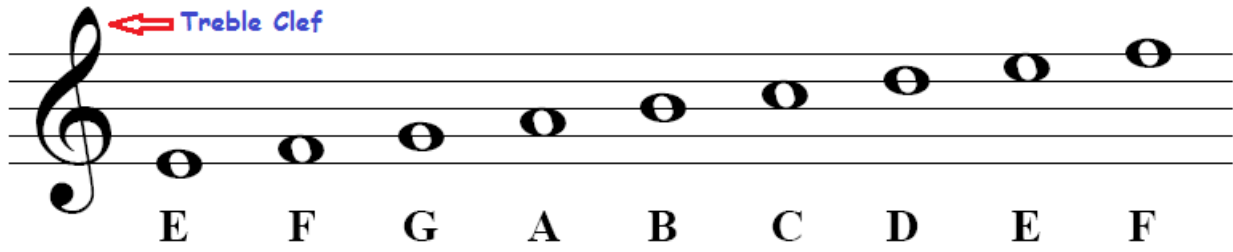


V. Things to Know

For practical and testing purposes, be able to:

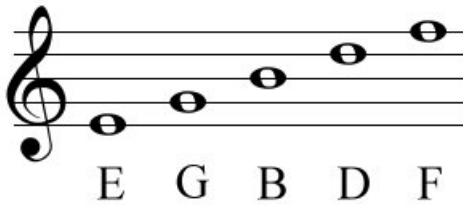
- Identify notes and rests, from whole to sixteenth.
- Know that a dot adds half to the value.
- Identify treble and bass clefs.
- Identify the letter names of the lines and spaces of the treble and base clef.

Treble Clef Notes



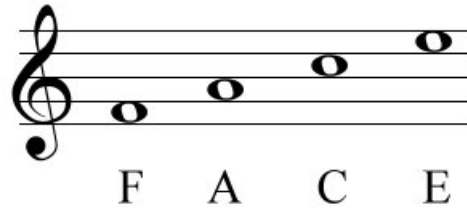
A musical staff with a treble clef. A red arrow points to the clef with the text "Treble Clef". The staff contains nine whole notes, each labeled with a letter below it: E, F, G, A, B, C, D, E, F.

Line Notes



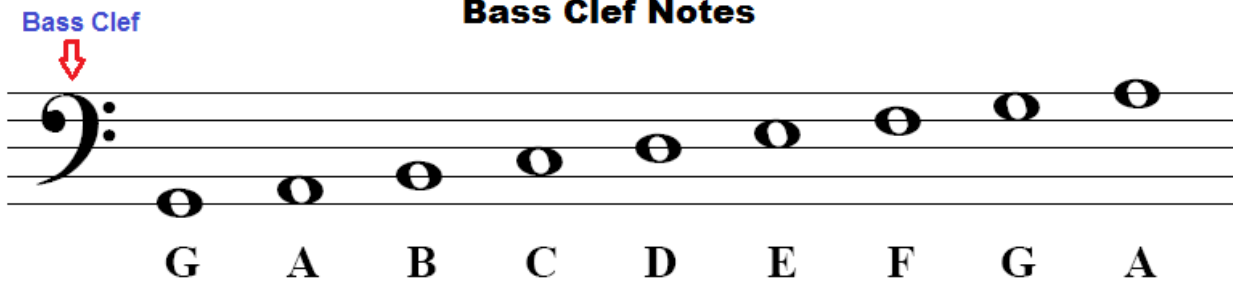
A musical staff with a treble clef showing five whole notes on the lines, labeled E, G, B, D, and F from left to right.

Space Notes



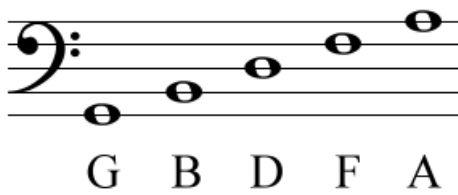
A musical staff with a treble clef showing four whole notes in the spaces, labeled F, A, C, and E from left to right.

Bass Clef Notes



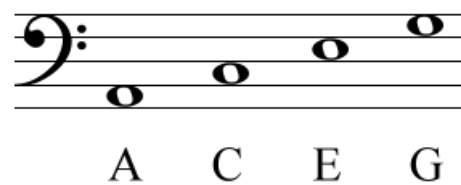
A musical staff with a bass clef. A red arrow points to the clef with the text "Bass Clef". The staff contains nine whole notes, each labeled with a letter below it: G, A, B, C, D, E, F, G, A.

Line Notes:



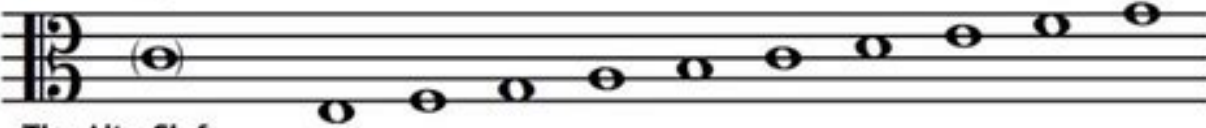
A musical staff with a bass clef showing five whole notes on the lines, labeled G, B, D, F, and A from left to right.

Space Notes:



A musical staff with a bass clef showing four whole notes in the spaces, labeled A, C, E, and G from left to right.

C

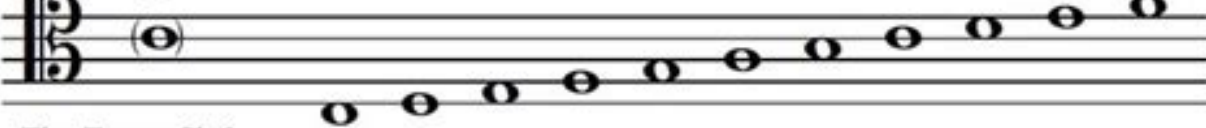


The Alto Clef

E F G A B C D E F G

Detailed description: This musical staff uses an alto clef, where the C-clef is positioned on the third line of the five-line staff. A 'C' is written above the staff to indicate the clef. The staff contains a scale of whole notes starting from E on the first space (below the staff) and ascending to G on the second space (below the staff). The notes are labeled with letters E through G below the staff.

C



The Tenor Clef

C D E F G A B C D E F

Detailed description: This musical staff uses a tenor clef, where the C-clef is positioned on the fourth line of the five-line staff. A 'C' is written above the staff to indicate the clef. The staff contains a scale of whole notes starting from C on the second space (below the staff) and ascending to F on the second space (below the staff). The notes are labeled with letters C through F below the staff.