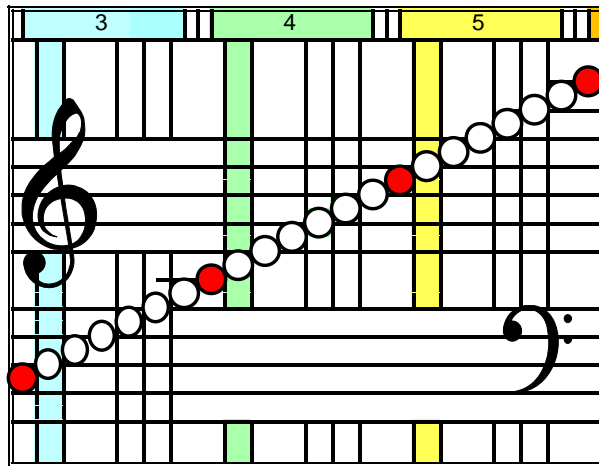


Notations of Pitch Compared: The Grand Staff vs Key Diagrams

AKM-18

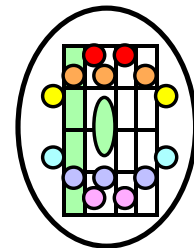


An Overview



*A C Major Scale on a Grand Staff
Overlaid With a Keyboard Diagram*

**From the Music
Innovator's Workshop**



**On the Grand Staff there is a
Natural Note for Each of the 52 White Piano Keys**

These same notes are used for the 36 black piano keys but must be used with a flat (b) sign or a sharp (#) sign to signify which black key to play. Traditional notes are black and white only. They are colored here to show which octave groups they belong in.

In piano music, several additional ledger lines (and notes) are used between the treble and bass staves. See page 6.

Range of the Grand Staff: Indigo F thru Yellow G

Time runs from left to right.

Some notes are overlapped on the diagram to show locations of half-steps between B/C and E/F.

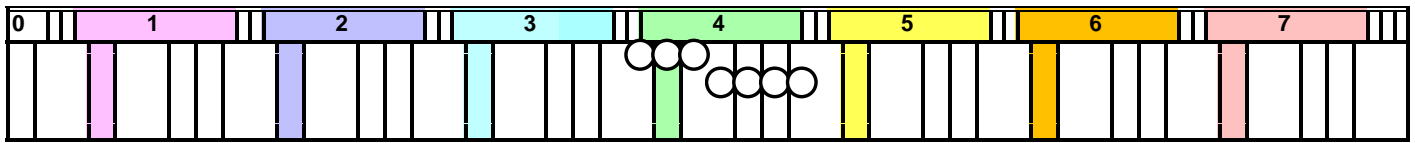
The notes above and below the grand staff require ledger lines. The ranges of the ledger lines are shown in yellow.

Flat signs (b), double flat signs (bb), sharp signs (#), and double sharp signs (x) are used with these notes to change the piano key that you play when you see the note with the sign.

These signs are most often put at the beginning of each musical staff line. Then you are expected to remember while you are playing the rest of the line, which notes are required to be altered. These signs are called key signatures. Ten different key signature signs are commonly used. These key signatures run from 1 thru 5 sharps and from 1 thru 5 flats.

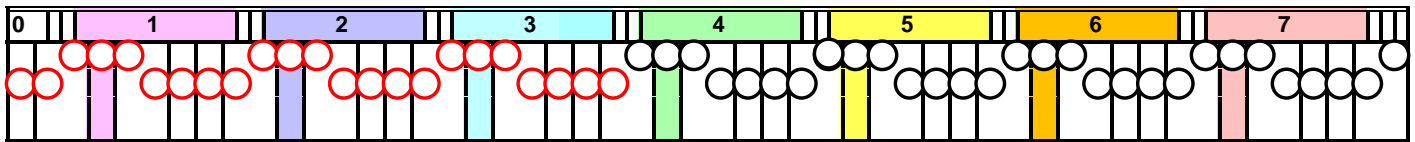
These *notes* and *signs* are abstract symbols. They bear no physical relationship to the locations of the keys that they represent on the keyboard! What they actually are, are a generalized composers' shorthand that has not been translated into keyboard notation. Basically, these notes tell you what **SOUNDS** to play, rather than telling you what **KEYS** to play. They provide a wonderfully universal musical language understood in every country of the world -- and a musical notation for all of the musical instruments of the orchestra as well as keyboards and voice! Unfortunately, though, it is very hard to learn to read them.

On the Key Diagram Notation There is a Note for Each of the 7 Different White Piano Keys

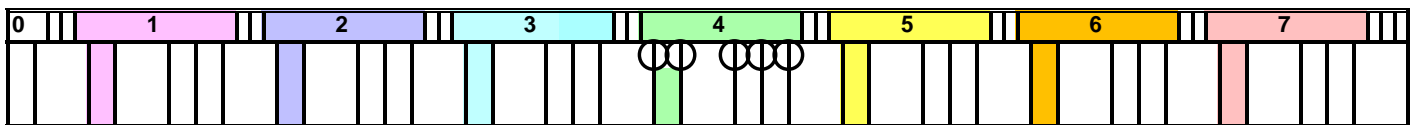


These same 7 notes are used for each octave of the diagram. The octaves are distinguished from each other both by their positions to the left or right of each other (just as are the octaves on the keyboard), and by their different rainbow colored backgrounds. Notes intended for the left hand have red borders; notes for the right hand have black borders.

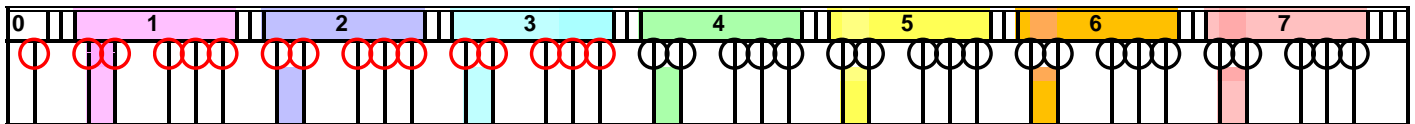
Time runs from the top to the bottom of the page.



There is also a note for each of the 5 different black keys.



These same 5 notes are used for each octave group of the diagram.

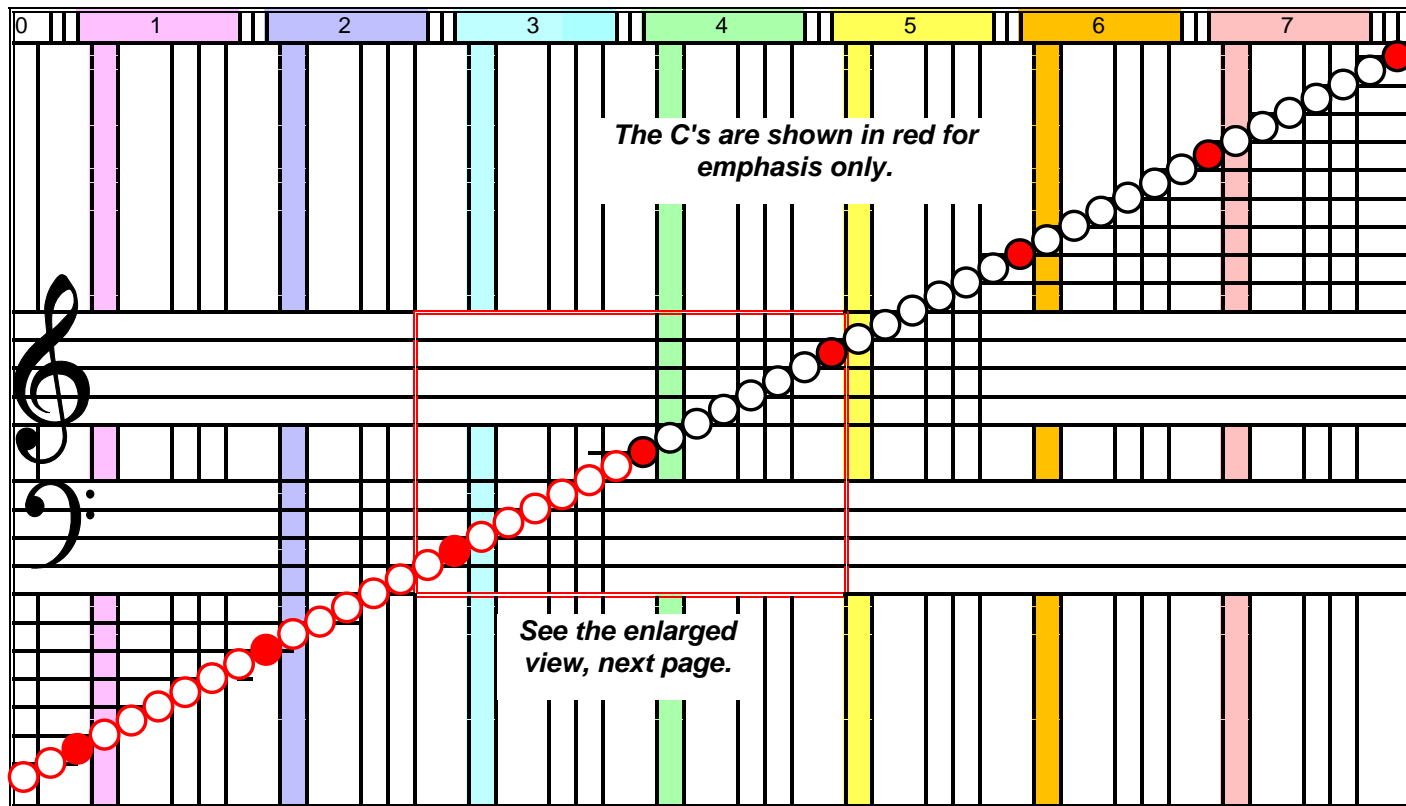


The key diagram is a map of the keys, in the left/right dimension, and a time line running from the top to the bottom of the page. The diagram is a cartoon-like image of the keyboard that provides an authentic visual connection between the sheet music diagram and the keys of the keyboard. The notes on the diagram visually show you which keys to play.

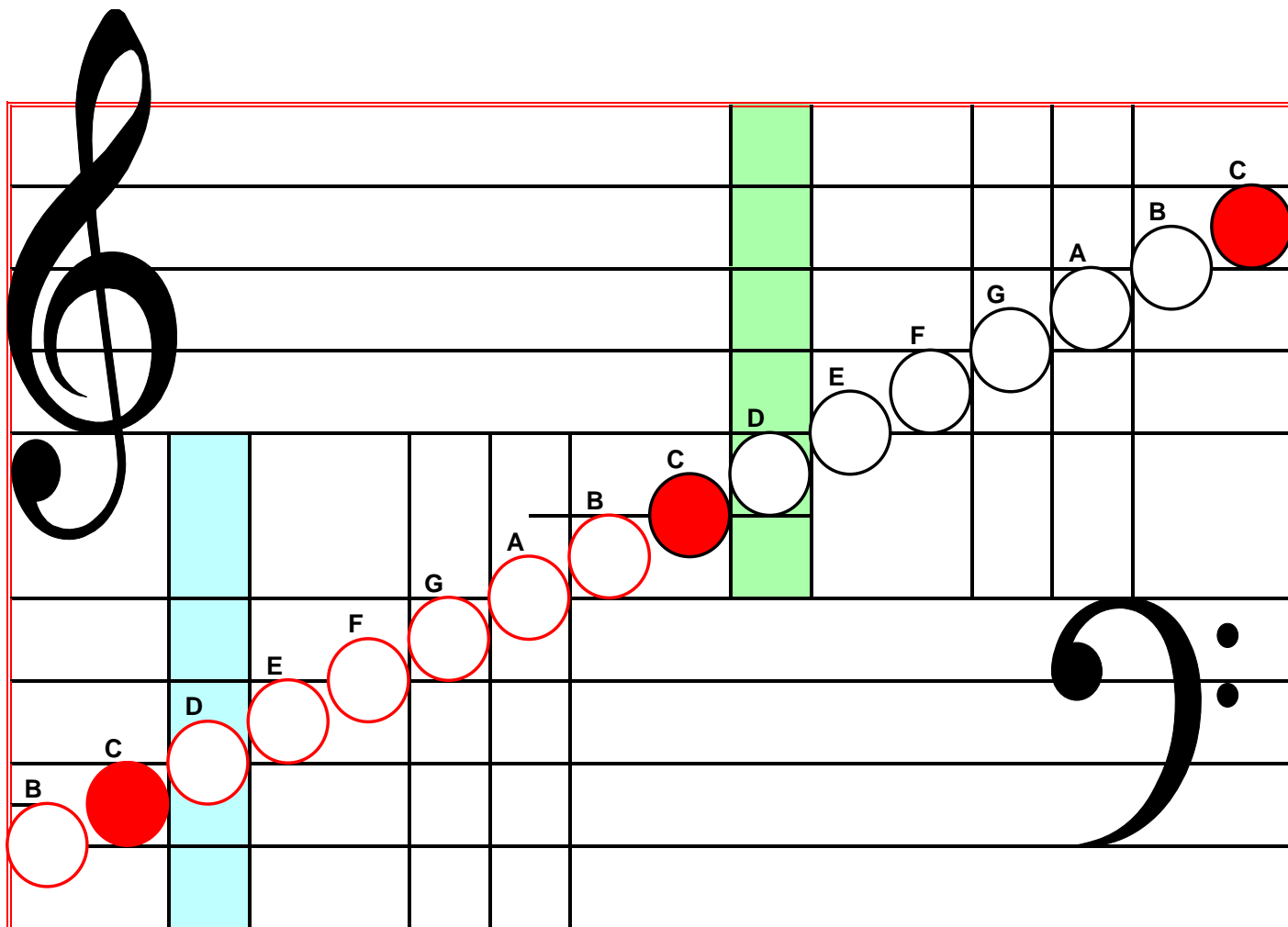
Sharps and flats are not used to alter what key you play. A given note position on the diagram always represents the same key. It is entirely unnecessary to know the sign of any note in order to play it correctly.

Technical Note: For advanced players who care about note names, you will always know whether a note is a sharp or flat. In diagrams, at the beginning of every piece and key change, there is a key signature that tells you how many sharps or flats define the key. Appropriate signs can be shown for accidentals on the rare occasions that it might be necessary to clarify the sign of a note.

**Intersection of the Grand Staff
And the Key Diagram Showing the Natural
Notes for All 52 of the White Piano Keys**



Detail – Notes for the White Keys at the Middle of the Keyboard

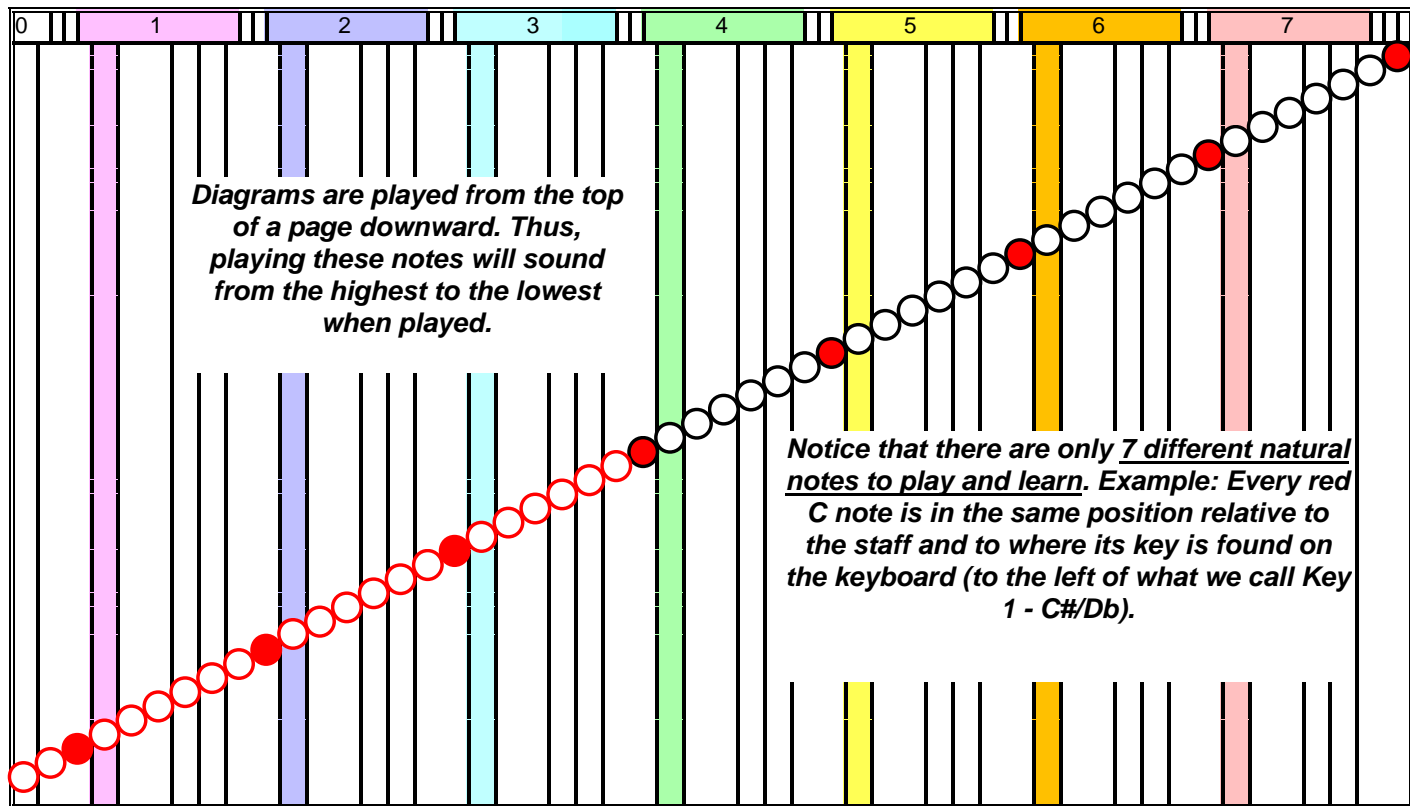


Grand Staff
Showing the Natural
Notes for All 52 of the White Piano Keys

Grand Staff notes are played from left to right. Thus, playing these notes will sound from the lowest to the highest when played.

Notice that there are 52 different natural notes to play and learn. Example: Every red C note is in a unique position relative to the staff. Also, the notes have no visual connection to the keys that they stand for on the keyboard.

The Diagram Staff
Showing the Natural
Notes for All 52 of the White Piano Keys



**Grand Staff Altered to Show a
Typical Piano Configuration – Treble and Bass Separated --
8va Signs Used to Reduce Number of Ledger Lines**

With
8va
signs

Right Hand

The C's are shown here in red for emphasis only.

Separated bass and treble staves, and ledger line extensions of each.

Left Hand

Inside the above blue box, each red bordered note is played ON THE SAME KEY as the black bordered note directly above it. For example, the two red filled notes in the box are played on the SAME piano key - middle C. The difference is that the lower note is played by the left hand and the higher note is played by the right hand.

With 8va basso signs

Separation of the Bass and Treble Staves

For the grand staff, it is assumed that the left hand will play the notes of the bass staff, and the right hand will play the notes of the treble staff. To be able to notate higher notes for the left hand and lower notes for the right hand, and yet remain on the appropriate staff, the bass staff must be extended up, and the treble staff must be extended down. This extension is done with ledger lines. **TO MAKE ROOM FOR THESE EXTENSIONS, THE BASS AND TREBLE STAVES MUST BE SEPARATED**, as you can see on the piano staff above.

In addition, this widened space is often used for song texts, and for comments and directions.

The 8va and 8va basso Signs

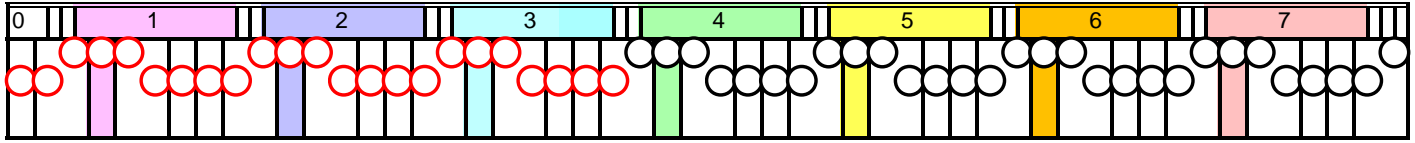
The notes above and below the grand staff also require **ledger lines**. Here the 8va sign (8va = octave) is used to reduce the number of ledger lines needed for the highest and lowest notes of the keyboard. (Plain) 8va means play an octave higher than written. 8va basso means play an octave lower than written.

The Key Map Staff

Key maps do not use ledger lines except on very rare occasions. There is no separation in the middle of the staff as there is for the piano version of the grand staff.

About Two Versions of the Keyboard Diagram

There are two main versions of the keyboard diagram used in this Piano Student's Workshop. The version described in this unit shows notes for white keys having the same spacing as the white keys on the keyboard. We call this version, the "keyboard diagram." It is the version used for our SK series, the Singing Keyboard. See the example below, reprinted from Page 3.

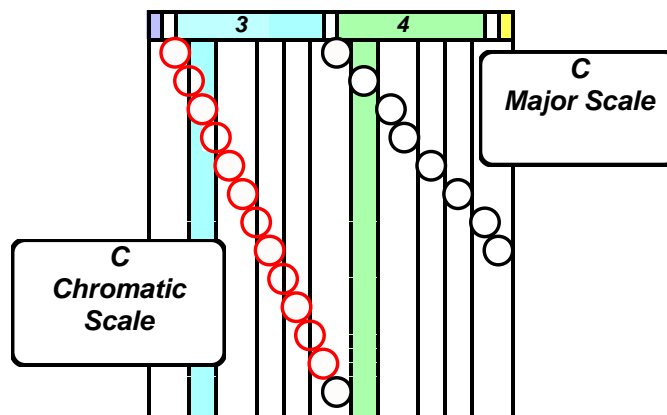


The Key Map Version of the Keyboard Diagram

The problem with the keyboard diagram version shown above is that though it shows an accurate horizontal spacing of the SIZE of the white keys, it does not reflect the proportional spacing of the SOUNDS of these keys. This is not a serious problem for some pianists, and for many pianists, it is no problem at all. But some prefer, along with us, to have notes that reflect this proportional spacing of the sounds. The proportional spacing of the sounds of the notes is easily accomplished by slight changes in the spacing of the vertical lines standing for the black keys on the diagram. This spacing is reflected in the "key map" version of the notation.

This spacing is accomplished by reducing the width of the spaces between the vertical lines creating the spaces for notes E and F and notes B and C by $\frac{1}{4}$. (This reduces the width of the spaces on the diagram between keys 2 and 3; and between keys 5 and 1; each by $\frac{1}{4}$.) This change is barely noticeable when playing from the diagrams, and it doesn't change the playing difficulty of a piece either for better or for worse. The change, however, makes the notation a truly accurate reflection of the intervals between the sounds produced by the keyboard.

The effect of this change is that all of the notes of the chromatic scale are equally spaced (horizontally). All whole steps have equal spacing. In fact, all intervals of a given kind have equal spacing. You can see this in the examples of a chromatic and major scales shown below. We use both diagram versions of the notation in our materials as well as the grand staff pitch notation. The SK Singing Keyboard music uses the diagrams featured in this unit, and our Key Maps use the truescaled diagrams that reflect the proportional spacing of the sound intervals. On the other hand, our RT versions use the traditional pitch notation of the grand staff, with its bass and treble clefs, in which the notes do NOT provide proportional visual spacing of the sounds.



Blank Page