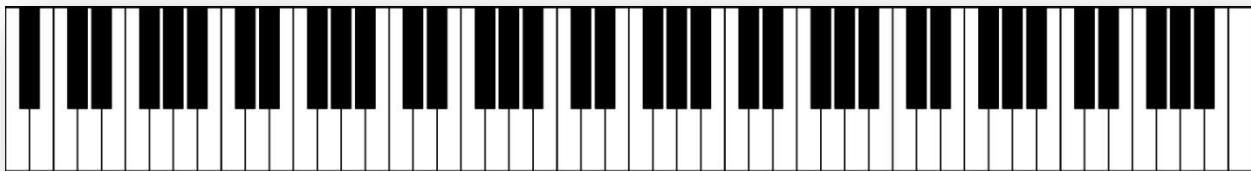


Keyboard Layout

This instrument is not as scary as it looks...

Did you know that:

- A full sized regular piano keyboard has 88 keys.
- There is a total of 8 notes in an octave.
- A half-step is an interval from one key to the next.
- The distance between two keys are known as Melodic and Harmonic intervals.
- Accidentals are notes that are lowered or raised within a musical key.



A standard piano keyboard has a total of 88 keys consisting of 56 white keys and 32 black keys. Smaller keyboards vary in total number of keys since they are typically used for playing chords, background harmonies, and or other complimentary sounds.

How Many Different Notes Are There?

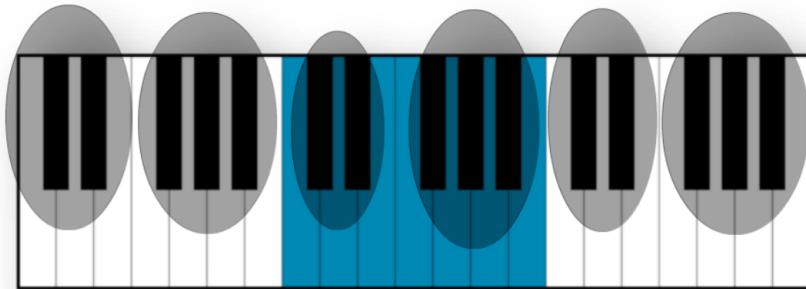
In music of the western tradition, there are 12 different notes:

- 7 are the Basic Notes, named after the first 7 letters in the alphabet; A, B, C, D, E, F, G. These are the white keys.
- 5 are the *Altered Notes*, a semitone or half step higher or lower from the basic notes. These are the black keys.

On the piano keyboard this can be easily seen in the pattern of the white and black keys. So the piano keyboard actually has only 12 *different* keys; 7 white keys and 5 black keys. The rest of the keys are just repeated with either higher or lower pitch.

Black Key Patterns

See how the black keys are grouped in two's and three's, all over the keyboard. This repeated pattern also makes it easier to find our way on the piano:



Keyboard Layout

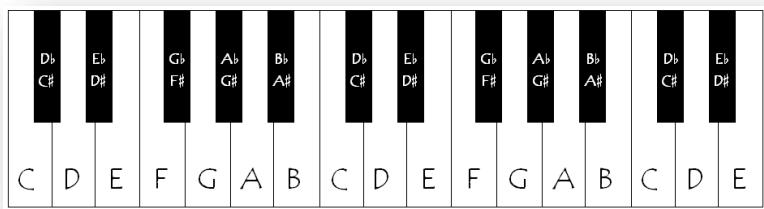
This instrument is not as scary as it looks...

The black keys make it possible to play many more scales and melodies. They fill in the “gap” where there are whole steps, so to speak! By playing all the keys one by one, both the white and the black keys, you can play a chromatic scale. A **chromatic scale** is made from only half steps.

The black keys are named after the white; they are alterations of the white keys. The black keys have two names. The name depends on from what white key it started from.

White Keys and the Basic Notes

Here is a piano keyboard diagram with the note names of the white keys, or the basic notes:



You can see that the 7 basic notes are repeated over and over. But each time the pitch (how high or low the tone is) is sounding one octave higher (if you go to the right). An octave is the distance, or interval, from one note or tone to the next with the same name, higher or lower. You can also see that all keys have a black key between them except between E - F and B - C.

All steps (the interval from one key to the next) that have a black key between them, are called whole steps. Those that don't, E-F and B-C, are smaller and called semitones or half steps. There are also half steps between a black and the white key next to it, or reversed. And there are whole steps from one black key to the next with a white key between.

Understanding Half Steps and Whole Steps

The distance between any two musical notes is called an interval. In Western musical notation, the smallest interval is the **half step** (or semitone). A **whole step**, by extension, is an interval equal to two half steps. Musicians combine half steps and whole steps in specific patterns to create specific scales, which are the basic principles of music when creating melodies and harmonies. When you play notes separately (one after another), you are in essence playing notes called **melodic interval**. Conversely, when you play notes together (simultaneously), you are playing musical notes that are referred to as **harmonic intervals**.

Half steps

On the piano keyboard, the distance between any two adjacent keys, white or black, is a **half-step**. The half-step is the smallest interval. Using only the white keys on the piano, there is a half step between B and C, and also between sharps it. The distance from F# to G is a half step because no other notes fall between them.

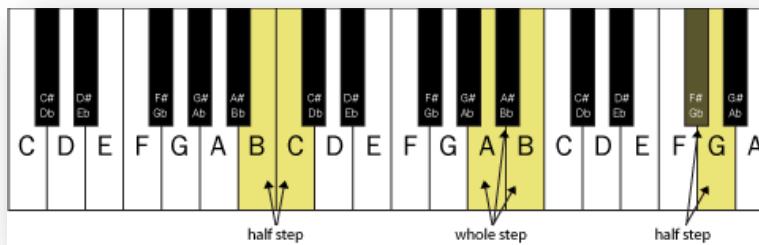
Whole steps

The distance between any two pitches that are TWO half-steps apart is called a **whole-step**. So the interval, or distance, between A and B is a whole step because it consists of two half steps.

Keyboard Layout

This instrument is not as scary as it looks...

Major and minor scales contain more than twice as many whole steps as half steps, but they are both important to how the scale sounds, so be sure you're familiar with both the half step (or semitone) and the whole step.



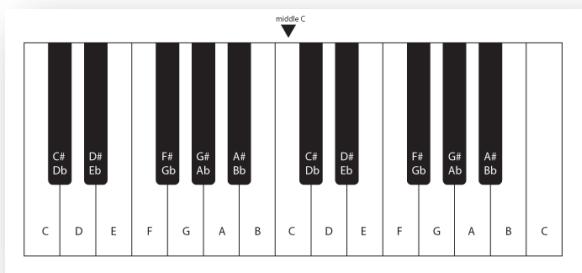
Naming the Black Keys - Accidentals

So how do you alter a white key? Easy, just use one of two music symbols; the sharp (#) and the flat (b). These symbols, together with the natural sign are called *accidentals* (nope- no accident!). You will only see accidentals written in the sheet music. If you just talk about a black key without reading any sheet music, it is OK to use any of the two names.

Let's say you read the note C. If there is a sharp sign (#) in front of C you get to play the black key a half step higher (to the right). In the same way you can use the flat sign (b) to lower a note. Starting from D this time, and having a flat sign in front of that D, you play the black key a half step lower (to the left).

Whoa, stop there! Db is the same key as C#???

Yes it is! The keys can have two names, depending on the accidentals. If they end up on the same key like this, they are called enharmonic ("one sounded").



You can use sharp and flat signs on any note. So even an E can have a sharp sign... and where does it go? To F! Since there is already only a half step between E and F - and a sharp sign raises the note a half step - there is only F, so E# and F are also enharmonic.