

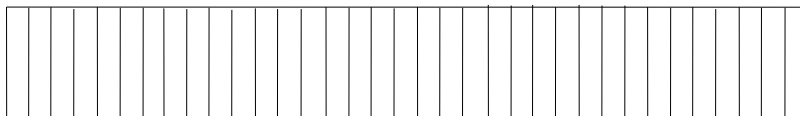
Keyboard Navigation

White & Black Keys

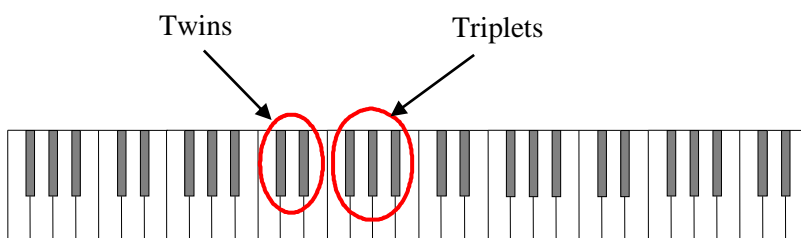
We take it for granted that a piano has white & black keys. But most people have never considered how crucial the black keys are to keyboard navigation.

Imagine a keyboard with no black keys. The white keys all look alike making it impossible to tell which is which just by looking.

Which white key is which?



It's the repeating sets of black twins and triplets that give shape and position to the white keys so you can tell them apart.



Without the black keys, you can't be sure!

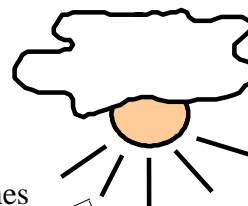
Up vs. Down

When someone says, "Play a *higher* tone," which direction is that on the keyboard?

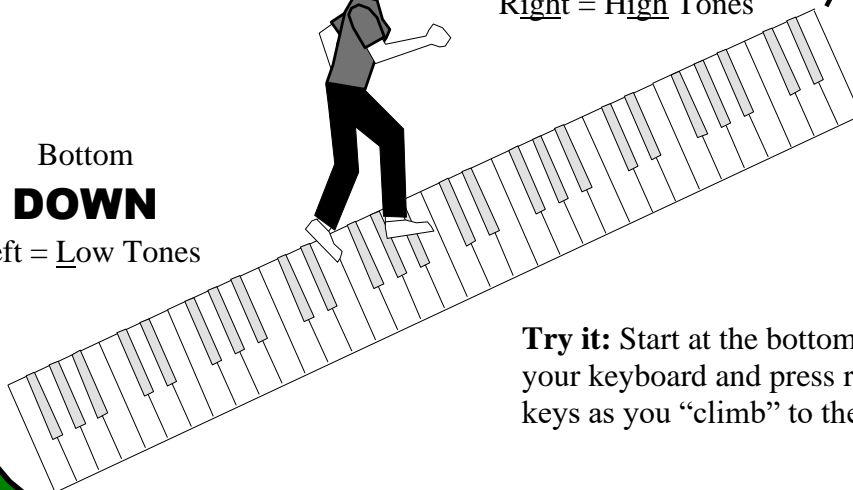


Imagine climbing keyboard "stairs" left to right. The higher you climb the higher the tone.

Top
UP
Right = High Tones



Bottom
DOWN
Left = Low Tones

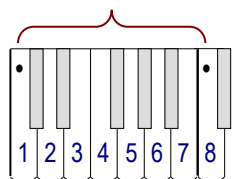


Try it: Start at the bottom left of your keyboard and press random keys as you "climb" to the top.

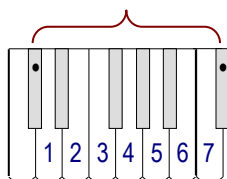
Octaves



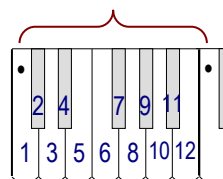
A keyboard is arranged into groups of keys called *octaves*.
Octave is Latin for “eight” (an octopus has eight legs!), but this can be misleading.



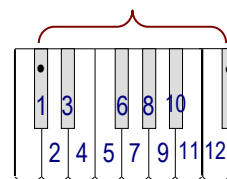
A *white-key* octave spans 8 white keys.



But a *black-key* octave spans only 7 white keys.



However, all octave spans include 12 keys. The 13th key starts a new octave.



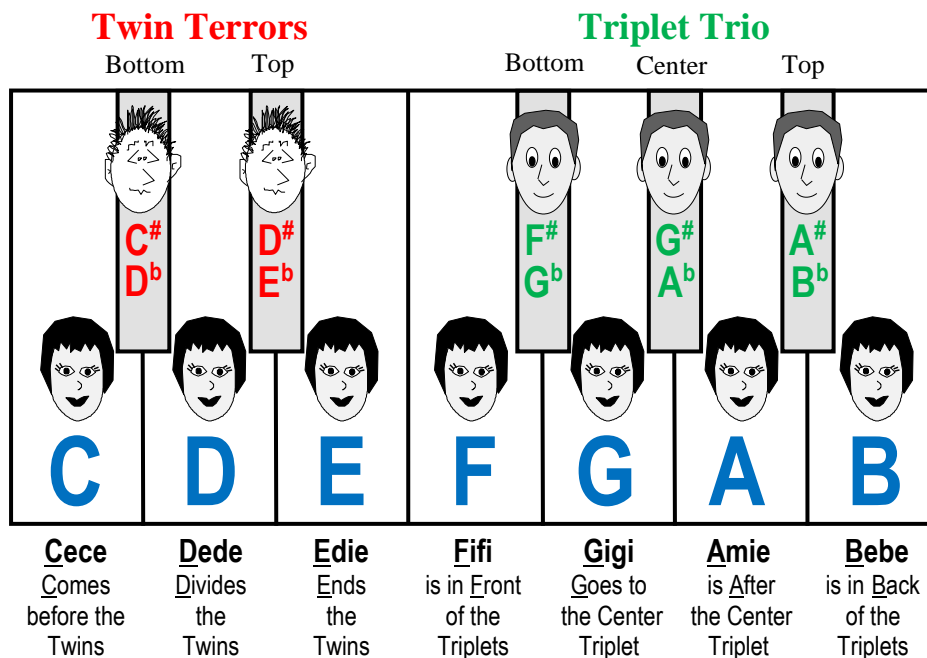
Each octave span on a keyboard includes 7 white keys and 5 black keys for a total of 12 keys.
The frequency of sound (pitch) of a key in one octave is *twice* that of the same key in next lower octave.

Key Names

The white piano keys are named after the first seven letters of the alphabet in CDEFGAB order.
The black piano keys are named using the same letters with a sharp (#) or flat (b) symbol added.



Imagine that each 12-key octave is a family with 2 Twins, 3 Triplets, and 7 Sisters.



Seven Sisters

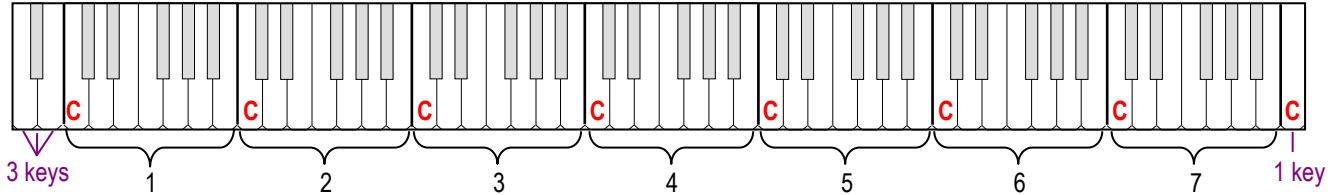
Twins & Triplets have two names!

Dad thought his sons were a bit dull, so he named them D-flat, E-flat, G-flat, A-flat, and B-flat.

Mom thought her sons were very smart, so she named them C-sharp, D-sharp, F-sharp, G-sharp, and A-sharp.

Counting Octaves

If there were only one Octave family on a keyboard, your range of tones and choice of songs would be limited. However, keyboards have multiple octaves, each starting on a C.



$7 \text{ octaves} \times 12 \text{ keys per octave} = 84 \text{ keys} + 4 \text{ extra keys} = 88 \text{ keys!}$



Octave families on the left have deep, rumbling voices.



Octave families near the middle are just right for most humans to sing along with.



Octave families on the right have high, delicate voices.

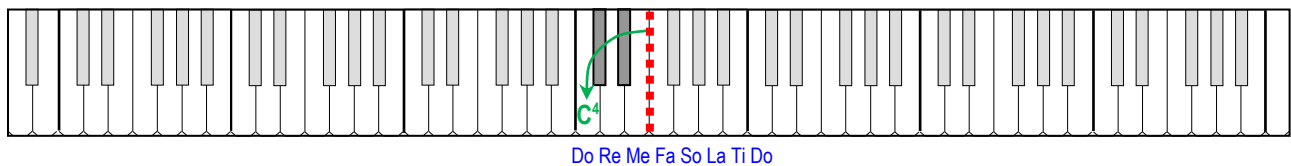
Finding Middle C

The octave that begins with Middle C is the closest to the human voice range. Use the following procedure to find Middle C⁴ on most keyboards.

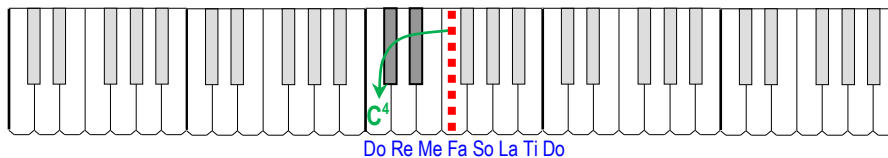


1. Visually split the keyboard in half.
2. Find the black twins *nearest* the split.
3. Middle C *comes before* those twins.
4. Play & sing the Do, Re, Me... scale to make sure it's about in your voice range.

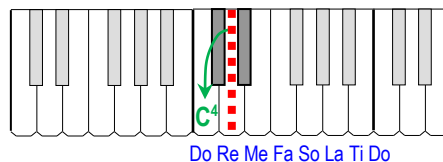
7+ Octave / 88-key Keyboard



5 Octave / 60-key Keyboard

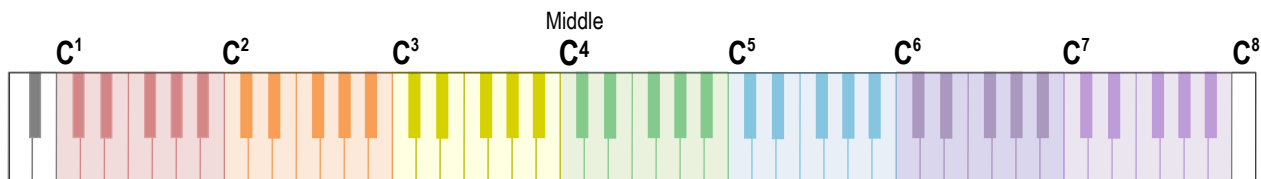


2+ Octave / 29-key Keyboard



Shading & Superscripts

Allcanplay shades octaves in rainbow colors to make it easier to tell them apart. A small superscripted (raised) number after each C lets you know which octave it starts.



← The alphabet goes from A to Z. An 88-key keyboard goes from A to C! →
 BrainAid There are 52 white keys and 36 black keys.

Visit the **Rainbow Keyboard** topic for colored strips that you can print, cut out, and attach above your keyboard's keys. They're a great aid to knowing which octave you're in.

www.maxlearning.net/Piano/RainbowKeyboard.pdf



Rainbowize your keyboard!

Here are two ways to differentiate identical keys in different octaves.

Give them the same superscripted number as their octave.

| | | | | | | |
|--|----------------------|-----------------------|-----------------------|----------------------|-----------------------|----------------------|
| | C³ | | C⁴ | | C⁵ | |
| | D³ | G^{#3} | D^{b3} | F⁴ | A^{#4} | E⁵ |
| | Yellow Dede | Yellow Center Triplet | Green Bottom Twin | Green Fifi | Green Top Triplet | Blue Edie |

Name them with their octave color and family name or position.

For more detailed technical information, see the **Reading Music** lesson.
www.maxlearning.net/Piano/ReadingMusic.pdf