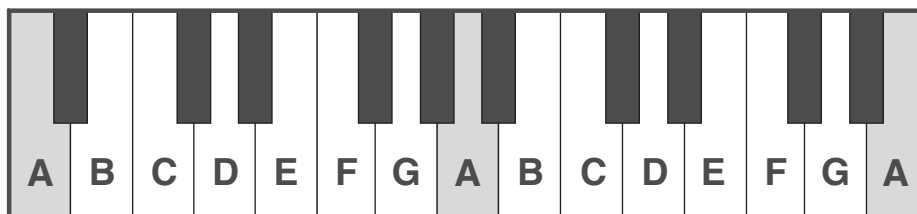


Chapter One: Scales

The Piano Keyboard

When I was nine, I took a year's worth of organ lessons to please my father, who had always dreamed of becoming an organist himself. By 11, I had moved on to the guitar, but I always respected the logic and layout of the keyboard.

In high school, I tried to drop my music theory class, which *snubbed* the guitar in favor of the keyboard, until Mr. Stellingwerf, our instructor, talked me out of it, pointing out that there was no better musical instrument than the keyboard for learning music theory: All the notes laid out there in linear fashion.....natural notes on ivories.....sharps and flats on ebonies. Pretty keys all in a row, lined up from low-sounding to high, left to right. (On other instruments, "white" and "black" notes are indistinguishable.)



Bear with me if you already know some of this stuff. In this keyboard diagram, the note labeled **A** to the far left has the lowest **pitch**, defined as *the relative highness or lowness of a note*, according to human hearing. Something about **frequencies**..... And it lives on a white key, so you can also call it **A-natural**, but just **A** will do.

It will not alarm you to see **B** as the next note, then **C**, as a 7-note **musical alphabet**, **A B C D E F G**, emerges, which starts over again at the **A** in the middle. This second **A** is said to be one **octave** higher than the first **A** ("octo" meaning 8), because the two **A** notes are 8 keys apart. Proceeding to the right, there is one more octave on the way to a third **A**. The third **A** has twice the frequency of the second **A**, which has twice the frequency of the first **A**. See, I know something about frequencies and hertzes and stuff.

I'm going to change the perspective now and zoom in on *one octave from C to C*. I'll explain why shortly, but I am going to tantalize you by telling you that, *if we were to play music only in the Key of C, we might not need those black keys*.

I should apologize for the overlapping vocabulary. We've been using the word **key** to refer to those white and black.....*things* that we press to play a note on the keyboard. But this term also refers to *a selection of notes that we arrange to produce music*.