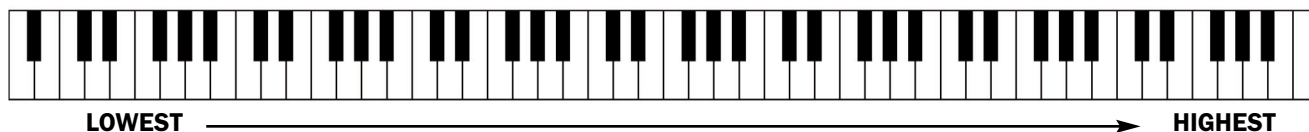# Chapter 1

Meet the Keyboard

A piano keyboard is our entrance into a world of sounds: a group of 88 different pitches arranged in ascending order from lowest to highest—the low notes are on the left, the high notes are on the right. These 88 pitches are all that is needed to produce an endless variety of music:

LOWEST ⟶ **HIGHEST**

Each key on the keyboard produces a unique pitch, and **adjacent keys are a half-step apart**—the smallest difference in pitch between one note and the next. Whenever you play a key, the next key is a half-step different in pitch, either higher or lower. The note you play may be higher or lower, black or white, depending on where you are on the keyboard.

Understanding which key is "next" is a very important concept and is often misunderstood, because black keys and white keys seem different. Look at the the full-length piano keyboard above, then find the first white key on the far left, the one under the "L." The next key is the black key above "O," followed by two white keys, then a black, white, black, and two whites. Look at the top half of each key to see this pattern and ignore the fact that white keys touch one another on their bottom half. Here is the order of pitches numbered from low to high:

1 2 3 4 5 6 7 8 9 10 11 12
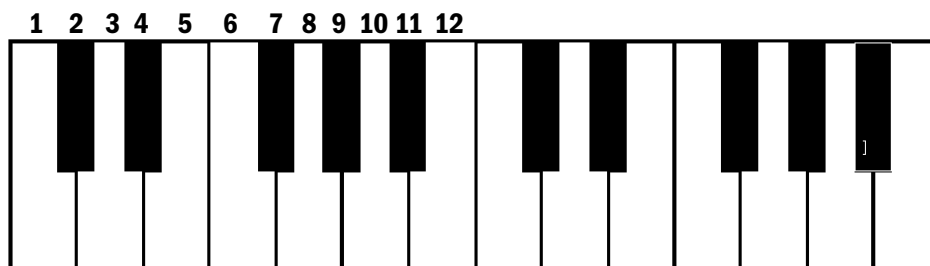
Now let's look at the pattern of **white keys** and **black keys**.
On the piano keyboard the black keys are arranged in a repeating pattern of two's and threes:

two   three   two   three
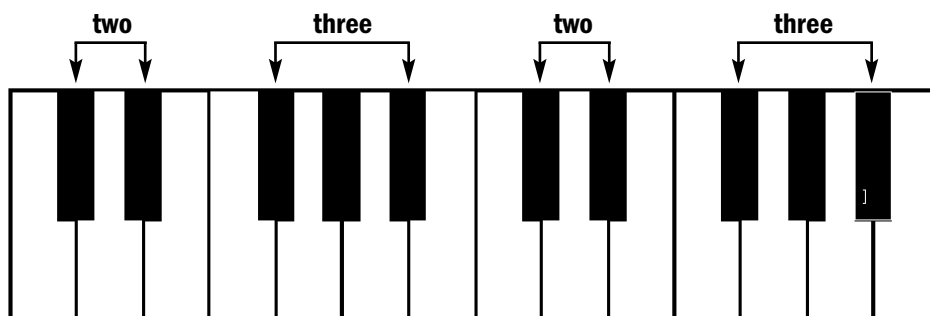
In order for the keyboard to be of a usable length the black keys are smaller and seem to be jammed between the white keys, sort of like overpacking a suitcase. This key design allows the keyboard to have 88 keys and still be a reachable size, and also creates a visual pattern of black and white keys that allows us to locate specific keys on the keyboard. Although it may look complicated at first, this pattern can be broken down into two components: