

## Intervals, Scales, and Chords:

An **interval** is a musical measure of the distance between two notes.

An interval has a **magnitude** and a **quality** (major, minor, augmented, diminished, perfect).

The **magnitude** is the number of lines and spaces between two notes, including the bottom note as 1.

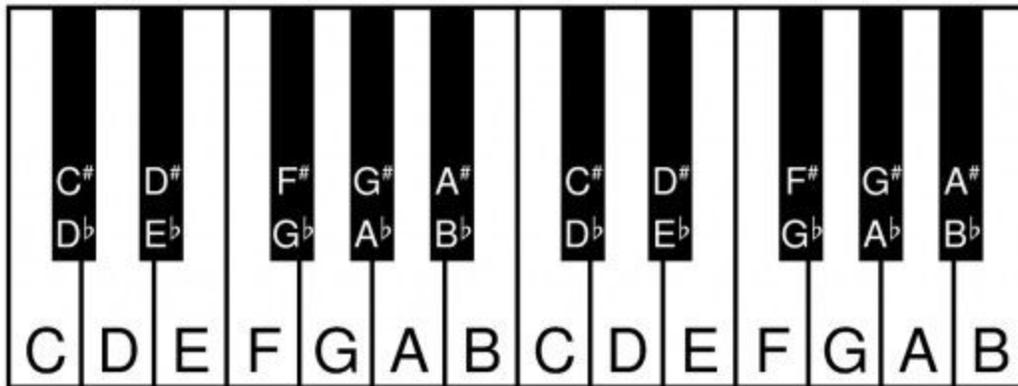
The **quality** is determined by the number of **half-steps** between two notes.

A **half-step** is the distance between two notes next to each other in the **chromatic ladder**. Two half-steps is a **whole step**.

### **Chromatic Ladder:**

**Ascending (going up):** C C# D D# E F F# G G# A A# B C

**Descending (going down):** C B Bb A Ab G Gb F E Eb D Db C



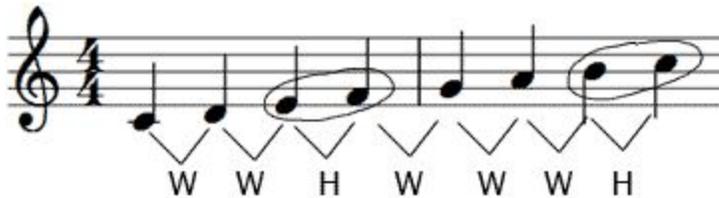
### **Interval Qualities and Names**

Perfect Unison - 0 half steps	Perfect Fifth - 7 half steps
Minor Second - 1 half step	Minor Sixth - 8 half steps
Major Second - 2 half steps	Major Sixth - 9 half steps
Minor Third - 3 half steps	Minor Seventh - 10 half steps
Major Third - 4 half steps	Major Seventh - 11 half steps
Perfect Fourth - 5 half steps	Perfect Octave - 12 half steps
Tritone (augmented fourth/diminished fifth) - 6 half steps	

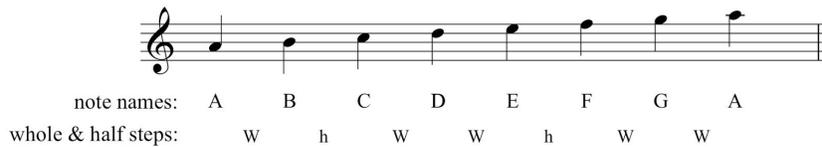
**Scales** are built on patterns of **whole steps** and **half-steps**.

A **scale degree** is a number (1-8) assigned to each note of a scale.

In a **major scale**, half steps occur between **scale degrees** 3 and 4, and 7 and 8.



A **natural minor scale** is like a major scale shifted over. Start on the 6th scale degree and play 6-6 with the same key signature. The half steps are between **scale degrees** 2-3, and 5-6.



In jazz, many scales can be thought of in relation to the **major scale**:

Flats indicate lowering the **scale degree** by a **half step**.

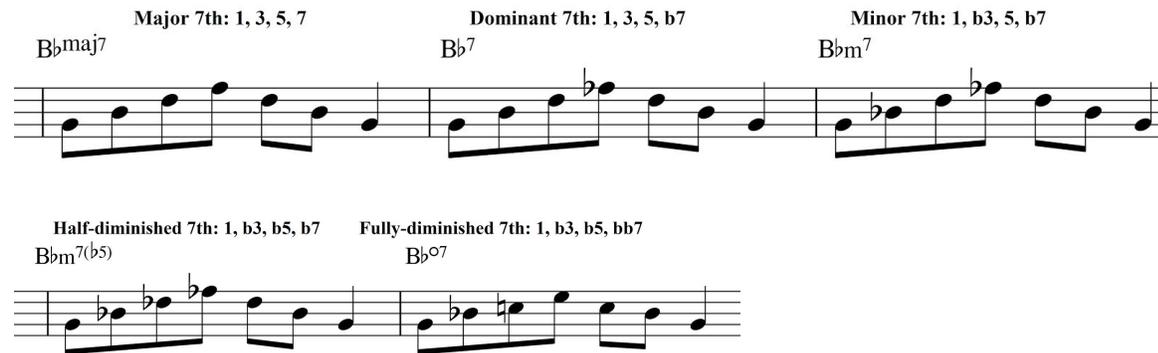
Major Scale: 1, 2, 3, 4, 5, 6, 7, 8.

Mixolydian: 1, 2, 3, 4, 5, 6, b7, 8.

Dorian: 1, 2, b3, 4, 5, 6, b7, 8.

Natural Minor: 1, 2, b3, 4, 5, b6, b7, 8.

**Chords** are built on every other note of a **scale** (such as scale degrees 1, 3, 5, and 7).



You can also think of **chords** as being built of **major thirds** and **minor thirds** on top of each other.

Major Chord: Minor third on top of a major third

Minor Chord: Major third on top of a minor third

Dominant 7th: Minor third on a minor third on a major third

Minor 7th: Minor third on a major third on a minor third

Half-dim 7th: Major third on a minor third on a minor third

Fully-dim 7th: Minor third on a minor third on a minor third