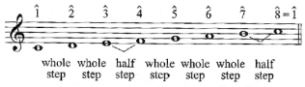
Scales

Scales

- A *scale* is a collection of pitches arranged in ascending order; most music is based on the pitches of a particular scale
- There are different types of scales
  - *Diatonic scales* use all seven letters of the musical alphabet—they have 7 different pitches
  - *Pentatonic scales* only have 5 different pitches in them
  - *Chromatic scales* use all 12 half steps in the octave
  - *Whole tone scales* are made up of whole steps only, with 6 different pitches in the scale
  - *Octatonic scales* alternate between whole and half steps, with 8 different pitches in the scale

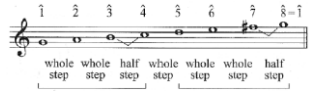
Major Scales

- The major scale is a type of diatonic scale, using all 7 letters of the musical alphabet
- Major scales have a particular pattern of whole and half steps between its pitches: **WWHWWWH**
- The half steps occur between 3 & 4 and 7 & 8

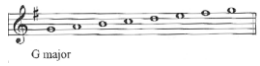


Key Signatures

- Each major scale will require a different set of accidentals to create the WWHWWWH pattern
  - For example, the G major scale requires one sharp

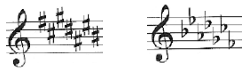


- These required accidentals can be placed in a *key signature* at the beginning of the line (after the clef)



Key Signatures

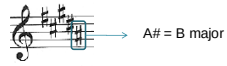
- The accidentals in a key signature always occur in the same order and in the same staff positions
  - The order of sharps is FCGDAEB (Foxy Cheerleaders Get Dates After Every Ballgame)
  - The order of flats is just the reverse: BEADGCF



  - With the exception of F major, all flat major keys have a flat in their name (Bb, Eb, Ab, Db, Gb, Cb)
  - With the exception of C major, all of the remaining keys are sharp keys (G, D, A, E, B, F#, C#)

Key Signatures

- Although memorization is the best way to recognize key signatures, there are also some tricks
  - For sharp keys, the name of the key is always a half step above the last sharp in the key signature



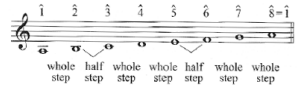
  - For flat keys (other than F major), the name of the key is always the next-to-the-last flat in the key signature

Scale degree names

- Each of the pitches in a diatonic scale has a name
  - The first pitch in the scale (scale degree 1) is called the *tonic*—all of the other pitches gravitate toward the tonic
  - Scale degree 2 is called the *supertonic*
  - Scale degree 3 is called the *mediant*
  - Scale degree 4 is called the *subdominant*
  - Scale degree 5 is called the *dominant*—it is the second most important pitch in the scale
  - Scale degree 6 is called the *submediant*
  - Scale degree 7 is called the *leading tone*—since it often leads directly into the tonic

Minor Scales

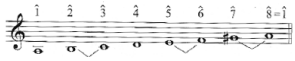
- The minor scale is another type of diatonic scale
- Minor scales have a different pattern of whole and half steps than major scales: **WHWWHWW**
- The half steps occur between 2 & 3 and 5 & 6



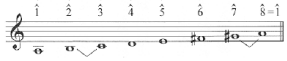
- Scale degrees 6 and 7 of the minor scale are *variable*, creating different "forms" of minor

Three "Forms" of the minor scale

- The natural minor scale is the minor scale in its natural, unaltered state
- *Harmonic minor* features a raised scale degree 7

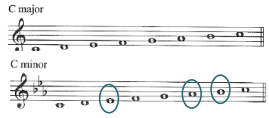


- *Melodic minor* features a raised scale degree 6 and 7 (only when ascending)



Parallel keys

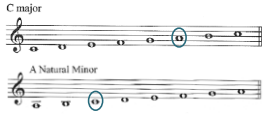
- Major and minor keys may be related
- *Parallel keys* have the same tonic
  - For example, the parallel minor of C major is C minor



- To change a major scale into its parallel minor, just lower scale degrees 3, 6, and 7
  - Thus, the key signatures of parallel keys will differ by three accidentals: C minor has three more flats than C major

Relative keys

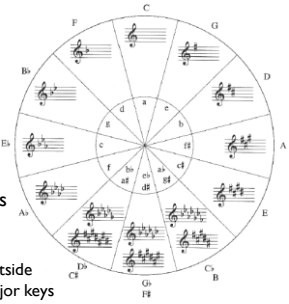
- *Relative keys* start on different tonics, but share the same key signature
  - For example, the relative minor of C major is A minor (both keys have no sharps or flats)



  - You can think of a minor scale as starting on scale degree 6 of its relative major (using the same pitches)
  - Similarly, a major scale starts on scale degree 3 of its relative minor

Circle of Fifths

- One way of visualizing all of the major and minor keys and their key signatures is the *circle of fifths*



  - The keys on the outside of the circle are major keys related by ascending fifths (in a clockwise direction)
  - The keys around the inside of the circle are the relative minor keys (sharing the same key signatures)