Week 1

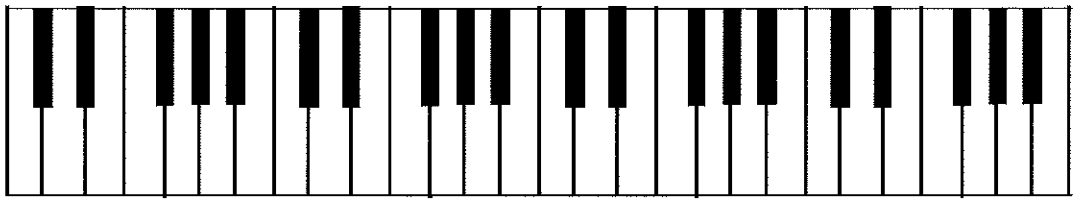
I. Piano Keyboard

C D E F G A B C

a. White Keys are "natural notes"
b. Black Keys are sharps and flats

II. Sharps/ Flats/ Enharmonics

a. **Half Step** – moving to the next note on the keyboard without skipping a key (white to black, black to white)



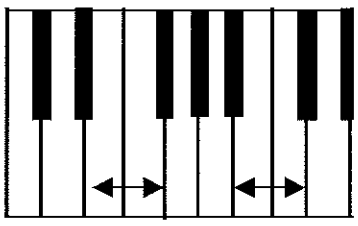
X X

b. **Whole Step** – Skipping one key on the piano (white to white, black to black)

X X

c. Natural half steps

i. There are two places that a half step naturally occurs on "natural" notes (E to F, B to C)



E F B C

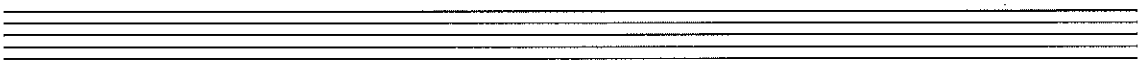
d. Double Sharps/ Flats

i. **Double sharp (x)** – raise the note two half steps
ii. **Double Flat (bb)** – lower the note two half steps

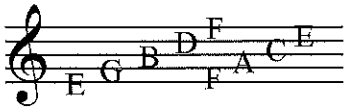
e. **Enharmonics** – Different note names for the same pitch/ key
i. G# and Ab are the same key on the keyboard, thus enharmonic
ii. Fx and G are the same note on the keyboard, thus enharmonic
iii. **watch out for the natural half-steps! B# = C!**

III. **Note Reading**

a. **Staff** – Five lines used to write notes/ pitches

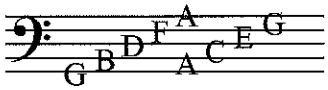


b. **Clefs** – A symbol used to assign pitch names to a staff
i. **Treble Clef** – tells where G is (curls around the G line)



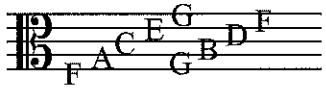
1. Lines = **E**very **G**ood **B**oy **D**oes **F**ine
2. Spaces = FACE

ii. **Bass Clef** – tells where F is (F line is between dots)



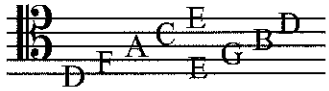
1. Lines = **G**ood **B**oys **D**eserve **F**udge **A**lways
2. Spaces = **A**ll **C**ows **E**at **G**rass

iii. **Alto Clef** – tells where "Middle" C is (between the curves)



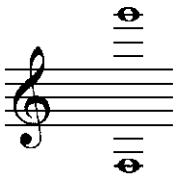
1. read as treble clef up a letter name

iv. **Tenor Clef** – tells where "Middle" C is (between the curves)

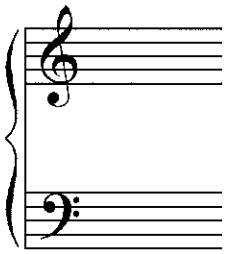


1. read as treble clef down a letter name

c. **Ledger Lines** – Temporary lines added to extend the staff upwards or downwards



d. **Grand Staff** – Treble clef and Bass clef staff linked together by a bracket. Used mainly by pianists.



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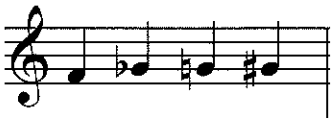
IV. Pitch

a. **Pitch** – A specific frequency that is given a letter name in the musical alphabet (i.e. – 440Hz = A)

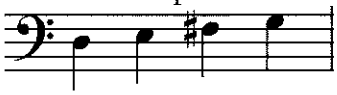
b. **Pitch Class** – All frequencies that have a 1:2 or 2:1 ratio of frequencies. All have the same letter name (i.e. – 110Hz, 220Hz, 440Hz, 880Hz, etc. = A)

c. **Pitch Collection** – A grouping of pitches

i. **Chromatic Collection** – A collection based on Half steps with no identifiable key



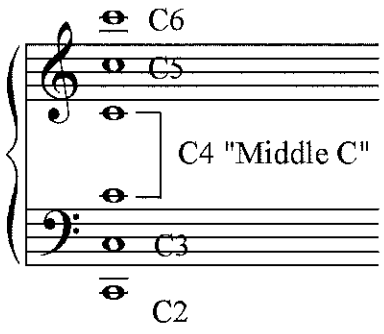
ii. **Diatonic Collection** – A collection based on a system of Whole and half steps that belongs to a key



d. **Registers** – a numbering system to assign an octave to a pitch.

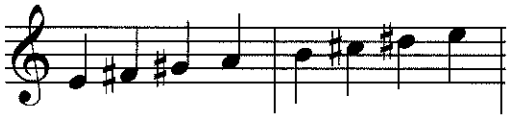
i. **"Middle" C** – If you were to add a line between the treble and bass clef on the Grand Staff, it would be C (1 ledger line above bass, 1 ledger line below treble.

1. Middle C = C4

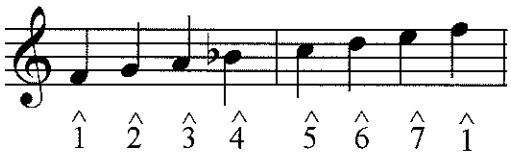


V. Scales

a. **Scale** – an ordered collection based on a pattern of whole steps and half steps that begins and ends on the same pitch class



b. **Scale Degrees** – each note of scale is given a number with a carat (^) over it

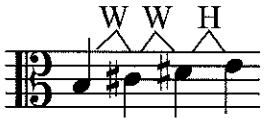


c. **Scale Degree Names**

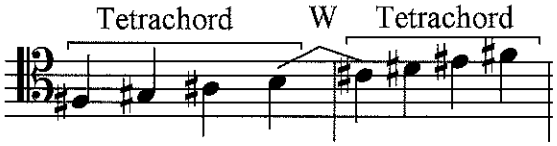
i. 1 – Tonic
ii. 2 – Super Tonic
iii. 3 – Mediant
iv. 4 – Sub-dominant
v. 5 – Dominant
vi. 6 – Sub-Mediant
vii. 7 – Leading Tone

d. **Tetrachord** – a four note collection based on a pattern of hole steps and half steps

e. **Major Tetrachord** – Tetrachord based on WWH



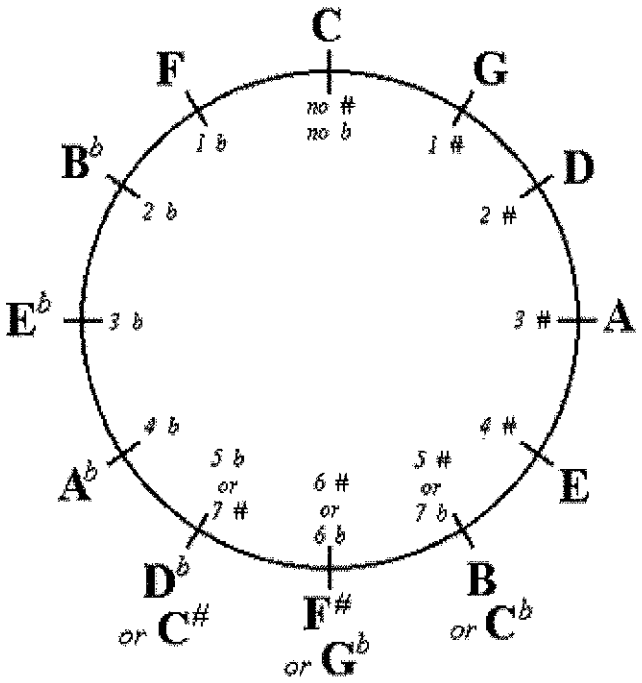
f. **Major Scale** – two major tetrachords separated by a whole step



VI. Key

a. **Key** – A scale that a melody is based on (i.e. key of A major)

b. **Circle of Fifths** – a cycle of keys that adds a sharp as you move clockwise or adds a flat if you move counter-clockwise (circle of fourths)



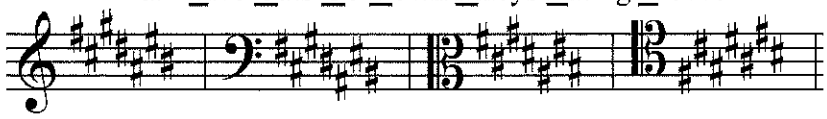
c. **Key signature** – a series of sharps or flats next to the clef that denotes the scale to be used

i. Reading

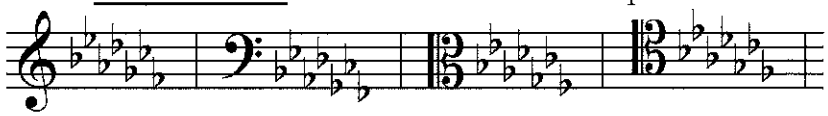
1. Sharp keys – Name of key is half step above the last sharp
2. Flat keys – Next to last flat is the name of the key
3. Must memorize – C Major has no flats or sharps, F has one flat
4. **All flat keys except F have flat in their name**

ii. Writing

1. **Order of Sharps** – the order in which sharps are written in a key signature
   a. **F**ive **C**ats **G**o **D**own **A**lleys **E**ating **B**roccoli



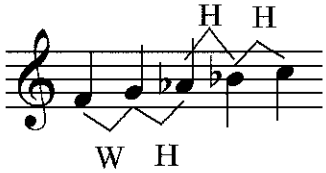
2. **Order of Flats** – reverse the order of sharps



Week 2

I. **Minor Keys**

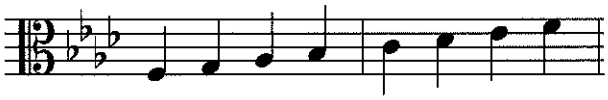
a. **Minor** – Based on a minor pentachord (WHWW)



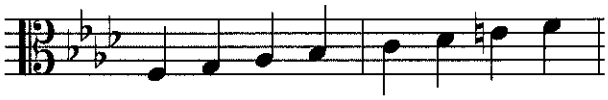
i. Major pentachord with lowered 3rd

b. **Minor Modes** – versions of the minor scale, share pentachord

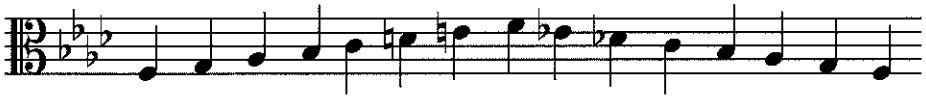
i. **Natural Minor** – lowered 6th and 7th scale degree



ii. **Harmonic Minor** – lowered 6th scale degree



iii. **Melodic Minor** – major 6th and 7th going up, natural minor going down.



1. contains the leading tone for melodic purposes, avoids A2nd with major 6th

iv. **Minor Scale Degree Names**

1. **Sub-Tonic** – lowered 7th SD
2. **Raised Sub-Mediant** – major 6th in a minor scale

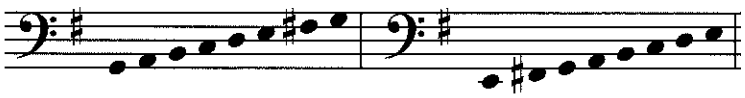
c. **Parallel Minor** – Same Tonic, different key signature

A Major a minor

i. Major Key signature – 3 sharps = Parallel minor Key Signature

ii. Major Key Signature – 3 flats = Parallel minor key signature

d. **Relative Minor** – same key signature, different tonic



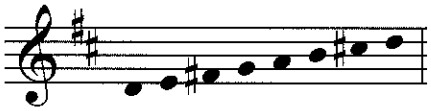
G Major e minor

i. Relative minor = Major scale starting on 6th scale degree **or** down minor 3rd (3 Half Steps)

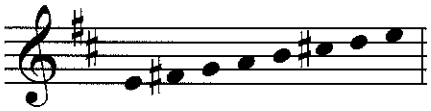
II. **Diatonic Modes**

a. Use same pitch class as the major scale, just start in different places

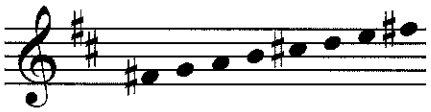
i. **Ionian** – Major scale



ii. **Dorian** – Based off 2nd SD of Major scale, has minor 3rd

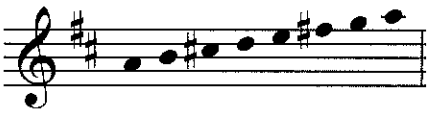


iii. **Lydian** – Based off 3rd SD of Major Scale, has minor 3rd

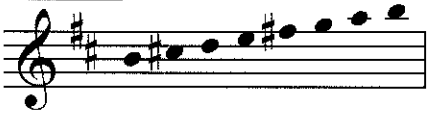


iv. **Phrygian** – Based off 4th SD of Major Scale, has major 3rd

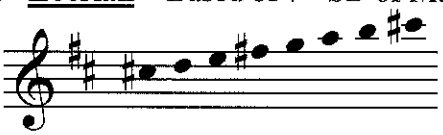
v. **Mixolydian** – Based off 5th SD of Major Scale, has major 3rd



vi. **Aolean** – Based off 6th SD of Major Scale, Natural Minor



vii. **Locrian** – Based of 7th SD of Major Scale, minor 3rd



1. not an origional "church" mode. Considered too dissonant for common practice, used in 20th century music

b. **I**diots **D**ance **L**ike **P**urple **M**onkeys **A**t **L**ollapalooza

III. **Pentatonic Scales**

a. 5 note scales used to avoid dissonance

b. **Major Pentatonic** – SD 1, 2, 3, 5, 6

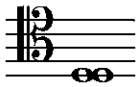
c. **Minor Pentatonic** – SD 1, 3, 4, 5, 7

IV. **Intervals**

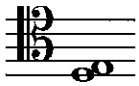
a. Refer to the distance between two pitches

b. **Generic Intervals** – refer to the space between the letter name only

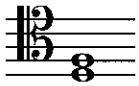
i. **Unison** – Same pitch



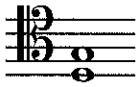
ii. **2nd** – up one letter name



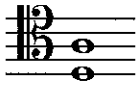
iii. **3rd** – up two letter names



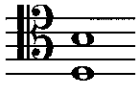
iv. **4th** – up three letter names



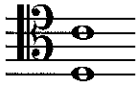
v. **5th** – up four letter names



vi. **6th** – up five letter names



vii. **7th** – up six letter names



c. **Specific Intervals** – refer to a specific combination of half steps and whole steps
    i. Uses generic intervals plus the designation minor (m), Major (M), Augmented (A), Perfect (P), and diminished (d)
    ii. **Perfect Intervals** – exist as the same interval in both the major and minor scale. These can never be major or minor.
        1. **PU** – 0 half steps, same letter, same register
        2. **P4** – 3 letter names, 2½ steps
        3. **P5** – 4 letter names, 3½ steps
        4. **P8/O** – Same letter name, one octave away, 6 steps
    iii. **Major Intervals** – exist in the major scale
        1. **M2** – 1 letter name, 1 step
        2. **M3** – 2 letter names, 2 steps
        3. **M6** – 5 letter names, 4½ steps
        4. **M7** – 6 letter names, 5½ steps
    iv. **Minor Intervals** – exist in the minor scale/ modes
        1. **m2** – 1 letter name, ½ step
        2. **m3** – 2 letter names, 1½ steps
        3. **m6** – 5 letter names, 4 steps
        4. **m7** – 6 letter names, 5 steps
    v. **Augmented Intervals** – One half step above all Perfect and Major intervals
        1. **AU** – same letter name, ½ step
        2. **A2** – 1 letter name, 1½ steps
        3. **A3** – 2 letter names, 2½ steps
        4. **A4** – 3 letter names, 3 steps
        5. **A5** – 4 letter names, 4 steps
        6. **A6** – 5 letter names, 5 steps
        7. **A7** - 6 letter names, 6 steps
        8. **A8/ O** – same letter name, one octave away, 6½ steps
    vi. **Diminished Intervals** – One half step below all Perfect and minor intervals
        1. **dU** – same letter name, down ½ step
        2. **d2** – 1 letter name, 0 steps
        3. **d3** – 2 letter names, 1 step
        4. **d4** – 3 letter names, 2 steps
        5. **d5** – 4 letter names, 3 steps
        6. **d6** – 5 letter names, 3½ steps
        7. **d7** – 6 letter names, 4½ steps
        8. **d8/O** – same letter name, one octave away, 5½ steps
    vii. **Tritone** – Another name for the A4/ d5
        1. bisects the octave, considered the most dissonant of all intervals
        2. outlawed by the early church as "The Devil In Music"

d. **Enharmonic Intervals**
   i. PU = d2
   ii. AU = m2
   iii. M2 = d3
   iv. A2 = m3
   v. M3 = d4
   vi. A3 = P4
   vii. A4 = d5 = TT
   viii. P5 = d6
   ix. A5 = m6
   x. M6 = d7
   xi. A6 = m7
   xii. M7 = d8
   xiii. A7 = P8
e. **Interval Inversion** – flipping intervals
   i. Interval inversions add up to nine (i.e. $6^{th} + 3^{rd} = 9$)
      1. U(1) inverts to 8ve
      2. 2^{nd} inverts to 7^{th}
      3. 3^{rd} inverts to 6^{th}
      4. 4^{th} inverts to 5^{th}
   ii. specifics invert to its opposite
      1. M inverts to m
      2. A inverts to d
      3. P inverts to P
f. **Intervals over an Octave**
   i. Add seven to the generic interval
      1. 8ve + $2^{nd} = 9^{th}$
      2. 8ve + $3^{rd} = 10^{th}$
      3. 8ve + $4^{th} = 11^{th}$
      4. 8ve + $5^{th} = 12^{th}$
      5. 8ve + $6^{th} = 13^{th}$
      6. 8ve + $7^{th} = 14^{th}$
g. **Aural Identification**
   i. Use songs to help identify intervals
   ii. Can't tell the difference between enharmonic intervals
   iii. **Interval songs**
      1. m2 – Jaws
      2. M2 – Happy Birthday
      3. m3 – Mr. Clean
      4. M3 – When the Saints
      5. P4 – Her Comes the Bride
      6. TT – Maria (West Side Story)
      7. P5 – Star Wars
      8. m6 – Love Story
      9. M6 – NBC
      10. m7 – Star Trek
      11. M7 – 1^{st} and 3^{rd} note of Over The Rainbow
      12. P8 – Over the Rainbow