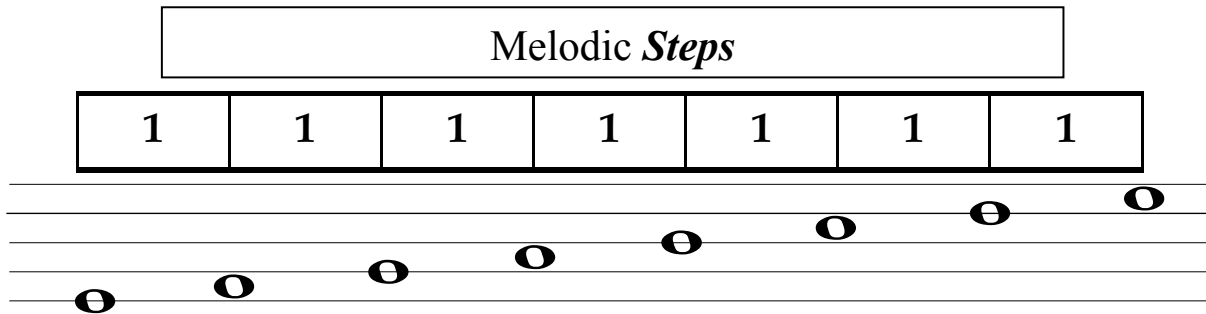


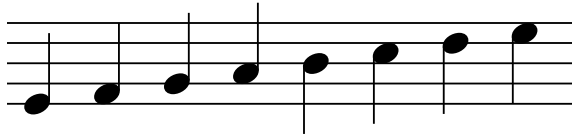
Elements 2 – Pitch and Intervals

Each change of pitch from line to space or from a space to a line is one melodic (or scale) step.



The distance between notes is called an **interval**. The interval between each step is called a second (2nd).

Ascending by step (2nds).



Descending by step (2nds).

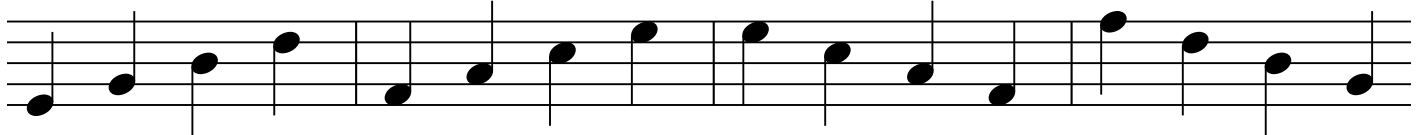


If notes skip a step, they are called an interval of a third (3rd).

Ascending by 3rds



Descending by 3rds



Moving by 4ths



Moving by 5ths



Steps and Intervals

Each change of pitch from line to space or space to line is **one step**.

Number of steps							
	0	1	2	3	4	5	6
	0	1	2	3	4	5	6

Intervals are referenced by the 1st pitch as One, then counted up or down by step.

Intervals							
	Unison	2nd	3rd	4th	5th	6th	7th
	Unison	2nd	3rd	4th	5th	6th	7th

Things to notice.

The numeric interval value between pitches is one more than the number of steps from one pitch to another.

The intervals between notes that are both on a line or space are odd numbers.

Unison	3rd	5th	7th
Unison	3rd	5th	7th

The intervals between notes in which one is on a line and the other is on a space are even numbers.

2nd	4th	6th	Octave
2nd	4th	6th	Octave

Chromatic Steps

Earlier, we explored melodic steps and intervals. There is another type of interval used to describe the distance between notes. This type of interval is called a **chromatic** interval.

The distance between each successive key on the piano is **one chromatic step**.

A diagram of a piano keyboard showing the chromatic steps between C and C. The keys are labeled C, D, E, F, G, A, B, C. Above the keys, boxes indicate the number of chromatic steps between successive keys: 1 between C and C#, 1 between C# and D, 1 between D and D#, 1 between D# and E, 1 between E and F, 1 between F and F#, 1 between F# and G, 1 between G and G#, 1 between G# and A, 1 between A and A#, 1 between A# and B, and 1 between B and C. Below the keys, boxes indicate the number of diatonic steps between successive keys: 2 between C and D, 2 between D and E, 1 between E and F, 2 between F and G, 2 between G and A, 2 between A and B, and 1 between B and C. Below the keyboard diagram, a musical staff shows the notes C, D, E, F, G, A, B, C in a chromatic scale, with each note represented by a whole note.

Two musical staves showing chromatic scales. The left staff is in treble clef and the right staff is in bass clef. Each staff shows a sequence of notes: C#, D#, E#, F#, G#, A#, B#, C. The notes are written as whole notes, and the scale is shown in both directions (ascending and descending).

A diagram of a piano keyboard showing the chromatic steps between C and B. The keys are labeled C, D, E, F, G, A, B. Above the keys, boxes indicate the number of chromatic steps between successive keys: 1 between C and C#, 1 between C# and D, 1 between D and D#, 1 between D# and E, 1 between E and F, 1 between F and F#, 1 between F# and G, 1 between G and G#, 1 between G# and A, 1 between A and A#, 1 between A# and B, and 1 between B and C. Below the keys, boxes indicate the number of diatonic steps between successive keys: 2 between C and D, 2 between D and E, 1 between E and F, 2 between F and G, 2 between G and A, 2 between A and B, and 1 between B and C. Below the keyboard diagram, a musical staff shows the notes C, D, E, F, G, A, B in a chromatic scale, with each note represented by a whole note.

Steps and Intervals

Intervals: Unison to Tritone				Inversions: Tritone to Octave		
Diatonic Intervals	Chromatic Intervals	Chromatic Steps		Chromatic Steps	Chromatic Intervals	Diatonic Intervals
Unison	Unison	0		12	Octave <i>8va</i>	Octave
2nd	Minor 2nd (m2) Semitone Half-step	1		11	Major 7th (M7)	7th
	Major 2nd (M2) Whole step	2		10	Minor 7th (m7)	
3rd	Minor 3rd (m3)	3		9	Major 6th (M6)	6th
	Major 3rd (M3)	4		8	Minor 6th (m6)	
4th	Perfect 4th (P4)	5		7	Perfect 5th (P5)	5th
	Augmented 4th (aug4)	6		6	Diminished 5th (dim5)	

Notice:

Unisons, 4ths, and 5th are primarily perfect.

Unisons are almost always perfect. They are very rarely diminished or augmented.

4ths are sometimes augmented and very rarely diminished.

5ths are sometimes diminished and very rarely augmented.

The augmented 4th is enharmonically equivalent to the diminished 5th. The interval is called a *tritone*.

2nd, 3rds, 6ths, and 7ths are mostly either major or minor.

They are sometimes diminished or augmented.

In some non-Western music they can be neutral: somewhere between minor and major.

The inversion of a 2nd is a 7th.

The inversion of a 3rd is a 6th

The inversion of a 4th is a 5th.

The inversion of a minor interval is major.

The inversion of a perfect interval is perfect.

The inversion of an augmented interval is diminished.

Intervals and Inversions

Below are notes with intervals and their inversions.

Unison 8va m2 M7 M2 m7 m3 M6 M3 m6 P4 P5

aug4 dim5 P5 P4 m6 M3 M6 m3 m7 M2 M7 m2

m2 M7 M2 m7 m3 M6 M3 m6 P4 P5 aug4 dim5

P5 P4 m6 M3 M6 m3 m7 M2 M7 m2 8va Unison