Elements of Music

Chapter 2

Sound Production

- What causes sound?
  - Vibration—instruments and voices must have a vibrator
  - Most instruments have a resonator
  - Most instruments have a system for regulating pitch (producing higher and lower sounds)

Basic Terms

- Pitch
  - How high or low a sound is (the frequency of its sound wave)

Music = A + B

Pitch + Time
(Maybe Pitch over Time)

Dynamics

- Volume
- From loudest FF+
- To Softest PP+
- Relative
- Chart on page 25

Tempo

- Speed
- "beats per minute"
- Italian terms listed on page 26
**Basic Terms**

- **Range**
  - The lowest to highest pitches an instrument or voice can produce
  - Measured in octaves

**Timbre**

- Sometimes called “tone color”
  - The characteristic sound an instrument or voice produces (nasal, breathy, gravelly, mellow)
  - Sound quality is often a matter of instrument’s materials or shape

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**The Orchestra**

Sections:
- Strings
- Woodwinds
- Brass
- Percussion

**Strings**

- **Composition**
  - Wooden body (Spruce, Maple)
  - Gut or metal strings
  - Wooden bow with horsehair
- **Instruments:**
  - Violin, Viola, Cello, Bass

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**Strings**

- Violin

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**Strings**

- Viola
Instruments of the Orchestra

**Strings**
- **Cello**
- **Bass**

**String Quartet**
- Two Violins
- Viola
- Cello

Let’s mention Pizzicato

**Woodwinds**
- Flute
- English horn
- Oboe
- Clarinet
- Saxophone
- Bassoon

**Harp**
Instruments of the Orchestra

**Woodwinds**
- Oboe

**Double Reeds**
- English Horn

**Woodwinds**
- Bassoon

**Woodwinds**
- Clarinet

**Brass**
- Trumpet
Instruments of the Orchestra

Brass
- French horn
- Trombone
- Tuba

Percussion: Pitched
- Timpani (Kettledrum)
- Xylophone (Marimba)
- Glockenspiel (Orchestra bells)
Instruments of the Orchestra

**Percussion**
- Tubular bells (Chimes)

**Percussion: Unpitched**
- Bass drum
- Snare (side) Drum
- Tambourine, Triangle, sleigh bells, chimes, cowbells
- Cymbals
- Gong

**Unusual Percussion “Instruments”**
- Clapping with drum sticks
- Artillery
- Anvils
- Cardboard tubes
- A typewriter

**Keyboard Instruments**
- Harpsichord
- Strings are plucked
Instruments of the Orchestra

Keyboard Instruments
- Organ
- Piano

Voices: not just pitch - timbre too
- Soprano
- Alto
- Tenor
- Bass

Note Values
- Just be able to divide and multiply by 2
- All based on doubling and halving
- Time signatures

Meter: grouping of rhythm patterns
- Double
- Triple

Key
- Major
- Minor
Texture

- Mono-
- Homo-
- Poly-
- Monophonic: (CD 1 #1)
- Homophonic: Most music
- Polyphonic: (CD 1 #2,3,11,13)