Wind Instruments -
A column of air, defined by the body of the instrument and set into motion by blowing of breath through a mouthpiece at one end of the instrument, sets the air around the instrument in motion, thus creating the sound. By removing fingers tips and/or mechanical pads (operated by keys) covering holes in the body instrument, the length of the column of air and therefore the length of the sound wave and therefore the pitch can be changed.

Woodwinds:
- **flutes** - mouthpiece splits the stream of breath, creating a vibration in the air column.
  - piccolo  [http://www.youtube.com/watch?v=OT966F09Q_8](http://www.youtube.com/watch?v=OT966F09Q_8)
  - flute  [http://www.youtube.com/watch?v=aw53VrbI4l0](http://www.youtube.com/watch?v=aw53VrbI4l0)
  - recorder  [http://www.youtube.com/watch?v=Uegx8La8BNY](http://www.youtube.com/watch?v=Uegx8La8BNY)
- **reeds** - blowing of breath into mouthpiece causes reed or reeds to vibrate, which creates a vibration in the air column.
  - double reeds
    - oboe  [http://www.youtube.com/watch?v=v0T966F09Q_8](http://www.youtube.com/watch?v=OT966F09Q_8)
    - cor anglais (English horn)  [http://www.youtube.com/watch?v=FXTKtC2eCAM](http://www.youtube.com/watch?v=FXTKtC2eCAM)
    - bassoon  [http://www.youtube.com/watch?v=En3QZQDepso](http://www.youtube.com/watch?v=En3QZQDepso)
    - contrabassoon  [http://www.youtube.com/watch?v=u8j49OtsJHo](http://www.youtube.com/watch?v=u8j49OtsJHo)
  - single reed
    - clarinet  [http://www.youtube.com/watch?v=MvYU_0zZfuDY](http://www.youtube.com/watch?v=MvYU_0zZfuDY)
    - bass clarinet  [http://www.youtube.com/watch?v=UfOiiTYy8Qz0](http://www.youtube.com/watch?v=UfOiiTYy8Qz0)
    - saxophone  [http://www.youtube.com/watch?v=8K8mv0arCS4](http://www.youtube.com/watch?v=8K8mv0arCS4)

Brass:
- **[brass]** - the buzzing of one’s lips against the mouthpiece creates a vibration in the air column.
  - trumpet  [https://www.youtube.com/watch?v=vKzuwto6Ltl](https://www.youtube.com/watch?v=vKzuwto6Ltl)
  - horn (French horn)  [http://www.youtube.com/watch?v=rYv9USKldMc](http://www.youtube.com/watch?v=rYv9USKldMc)
  - tenor trombone  [http://www.youtube.com/watch?v=rJsejnBytBw](http://www.youtube.com/watch?v=rJsejnBytBw)
  - bass trombone  [http://www.youtube.com/watch?v=7nvtW9iHYSA](http://www.youtube.com/watch?v=7nvtW9iHYSA)
  - tuba  [http://www.youtube.com/watch?v=tyPiBBvDZUM](http://www.youtube.com/watch?v=tyPiBBvDZUM)

Percussion Instruments -
- **skin,**
  - timpani (kettledrums)  [http://www.youtube.com/watch?v=7w5QStXbriY](http://www.youtube.com/watch?v=7w5QStXbriY)
  - snare drum (side drum)  [http://www.youtube.com/watch?v=t8i5SR8xVXM](http://www.youtube.com/watch?v=t8i5SR8xVXM)
  - bass drum)  [http://www.youtube.com/watch?v=ci48L1RZokU](http://www.youtube.com/watch?v=ci48L1RZokU)
- **wood,**
  - wood block, castanets, whip, temple blocks,
  - xylophone  [http://www.youtube.com/watch?v=Cd9xen3vK58](http://www.youtube.com/watch?v=Cd9xen3vK58)
  - marimba  [http://www.youtube.com/watch?v=AktcDzkohw8](http://www.youtube.com/watch?v=AktcDzkohw8)
- **metal**
  - crash cymbals  [http://www.youtube.com/watch?v=OdiYU7RA-I4](http://www.youtube.com/watch?v=OdiYU7RA-I4) skip to 1:35
  - suspended cymbals  [http://www.youtube.com/watch?v=5l5eFRRal0](http://www.youtube.com/watch?v=5l5eFRRal0) skip to 1:19, then 2:28 (roll)
  - triangle  [http://www.youtube.com/watch?v=f7NO3aR8bow](http://www.youtube.com/watch?v=f7NO3aR8bow) skip to 1:13, then 3:02 (roll)
  - tam-tam (gong)  [http://www.youtube.com/watch?v=nmB8A_G1MvY](http://www.youtube.com/watch?v=nmB8A_G1MvY) skip to 1:08, then 2:42 (roll)
  - chimes  [http://www.youtube.com/watch?v=QPeu5c5s-g](http://www.youtube.com/watch?v=QPeu5c5s-g)
  - glockenspiel  [http://www.youtube.com/watch?v=1XgdKTfy1Pw](http://www.youtube.com/watch?v=1XgdKTfy1Pw)
  - celesta  [http://www.youtube.com/watch?v=UGMwulhV5k3k](http://www.youtube.com/watch?v=UGMwulhV5k3k)
  - vibraphone  [http://www.youtube.com/watch?v=0f-tgpz4Krp0](http://www.youtube.com/watch?v=0f-tgpz4Krp0)

Instrument is struck and is thus caused to vibrate (pitch can be definite or indefinite), which in turn sets the air around it in motion, thus creating the sound.

Electronic Instruments -
Any instrument that manipulates electrical signals that regulate the vibrations of a speaker which sets the air around it in motion, thus creating the sound.
- Analogue Synthesizer  [http://www.youtube.com/watch?v=OJY8ZUC8f4](http://www.youtube.com/watch?v=OJY8ZUC8f4)
- Digital Synthesizer: your laptop computer:  [http://www.youtube.com/watch?v=Cjg7Mifl5iU](http://www.youtube.com/watch?v=Cjg7Mifl5iU)
**Keyboard Instruments** -
*Any instrument that uses a keyboard to operate, such the piano, harpsichord, clavichord, synthesizer (see above) or Organ*  [http://www.youtube.com/watch?v=Zscqshch6N4](http://www.youtube.com/watch?v=Zscqshch6N4)

**Class Activity:**

Britten: Young Persons Guide to the Symphony Orchestra  
[http://www.youtube.com/watch?v=3HhTMj2bek0](http://www.youtube.com/watch?v=3HhTMj2bek0)

Listen for the sound (tone color/timbre) of each of the instruments featured. Associate the sound with the name of the instrument (or classification of instruments) as well as the visual appearance of the instrument being played upon by a performer.