The clarinet is a single reed instrument. Made from wood, the clarinet produces a fluid sound when air is blown between a single reed and the mouthpiece. By pressing metal keys with the fingers of both hands, the player has the ability to play many different notes very quickly. The clarinet can play in the low register, where the notes are rich and full. It can play in the middle register. It can also play in the high register. Clarinets have their own family of instruments that includes the soprano clarinet in E flat, the most common B-flat clarinet, the bass clarinet, the less common alto clarinet, and even a contrabass clarinet. A descendent of the Renaissance chalumeau, it was improved through the end of the 18th century when the clarinet became a standard instrument in the orchestra.

Clarinet Links
http://www.clarinet.org/
http://www.woodwind.org/clarinet/
http://www.clarinetinstitute.com/

How the sound is made

Sound on a woodwind instrument comes from a vibrating column of air inside the instrument. The player makes this column of air vibrate in one of three ways: as air is blown across the top of an instrument (like the flute), across a single reed (like the clarinet), or across two reeds (like the oboe). A single reed is clamped to a mouthpiece at the top of the instrument and vibrates against the mouthpiece when air is blown between the reed and the mouthpiece. Two reeds tied together are commonly known as a double reed. This double reed fits into a tube at the top of the instrument and vibrates when air is forced between the two reeds.

How the pitch is changed

Woodwind pitch depends on the volume of air that is vibrating. A larger volume vibrates more slowly, for lower pitch; a smaller volume vibrates more quickly, for a higher pitch. For most woodwinds, the player changes pitch by opening and closing holes along the instrument's length. Closing more holes makes the instrument longer, making the notes lower.