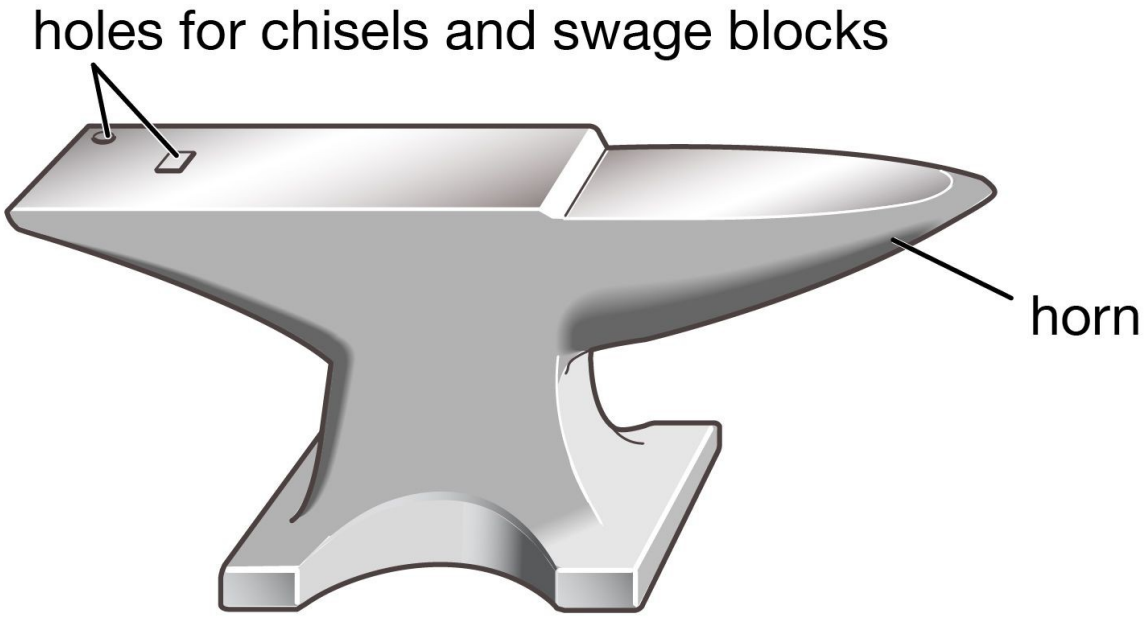
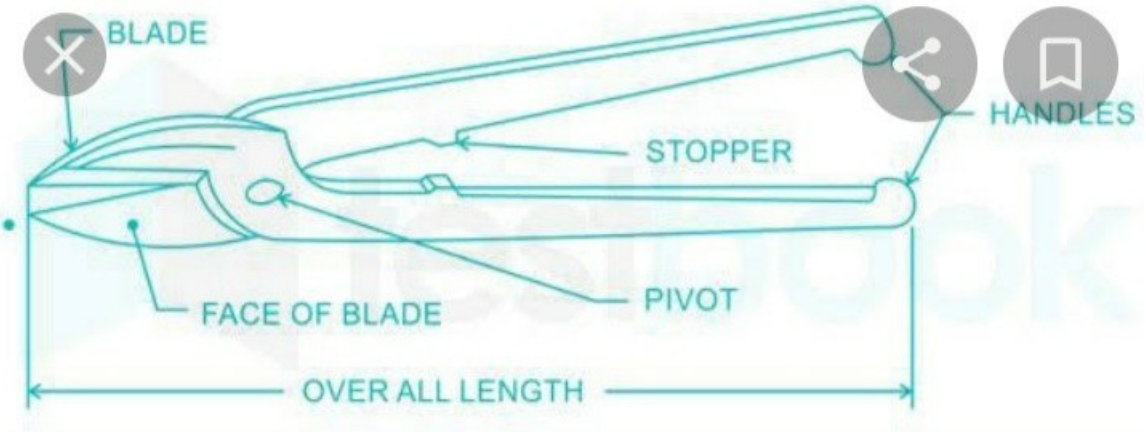


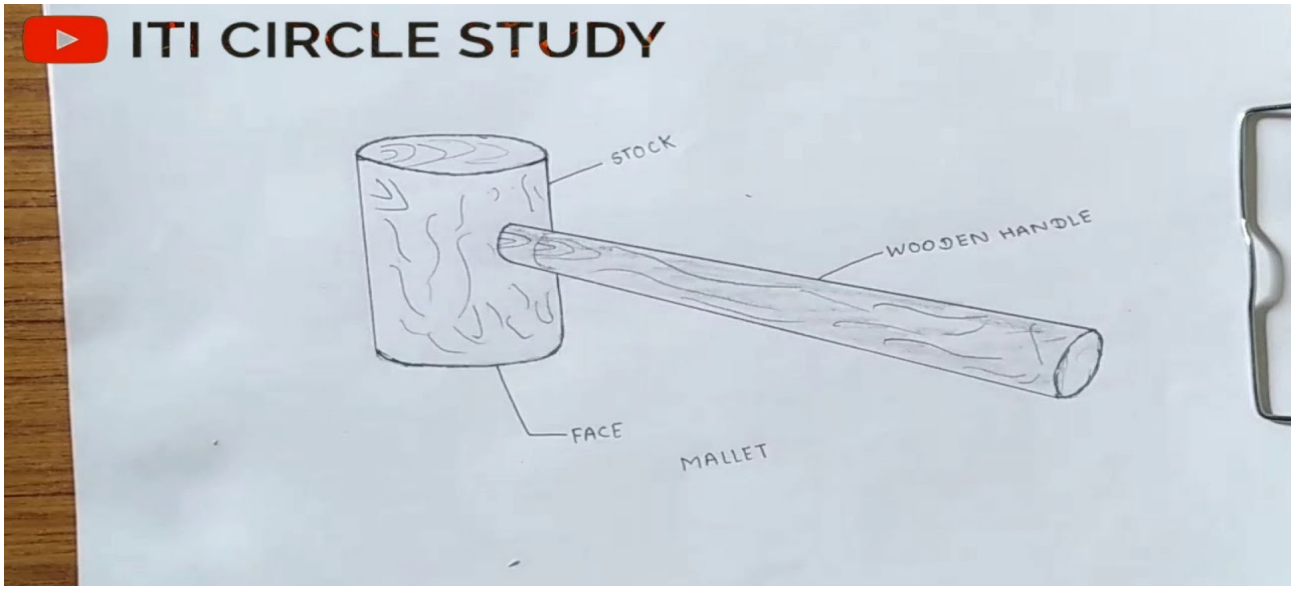
An **anvil** is a heavy block of metal, typically made of steel or iron, that is used as a tool in metalworking and blacksmithing. It typically has a flat top surface, called the face, and a horn or beak on one end. Anvils come in various shapes and sizes, but most have a rectangular shape with a flat top surface, and a pointed or rounded horn on one end.

The primary purpose of an anvil is to provide a surface on which metal can be shaped by hammering. The flat face is used for general-purpose work, while the horn is used for shaping curved or rounded objects such as horseshoes or metal bowls. The base of the anvil is usually secured to a sturdy stand or bench to prevent it from moving during use.



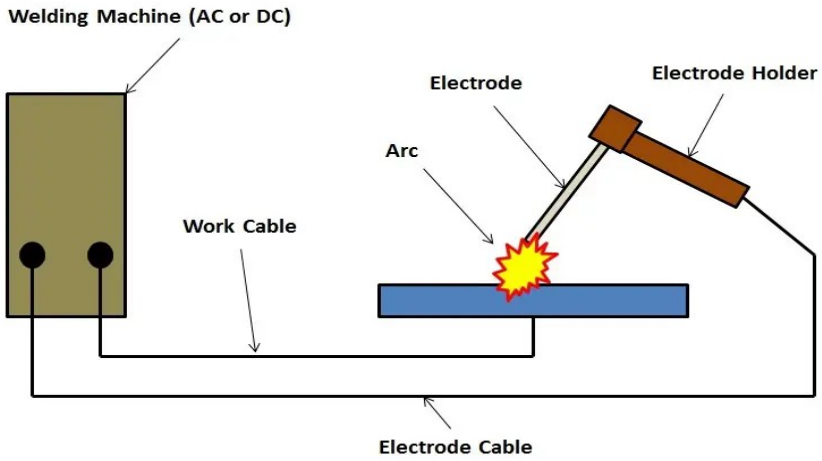
A **snip** is a type of cutting tool used in metalworking, sheet metal fabrication, and other similar applications. Snips are designed to make clean, precise cuts in thin sheets of metal, plastic, or other materials.

Snips typically have a pair of sharp blades that are used to cut through the material being worked on. The blades may be straight or curved, and they can be either offset or parallel to each other. The handles of snips are usually made of metal, plastic, or rubber, and they may be coated with a non-slip material to provide a secure grip



A **mallet** is a type of hammer that is used for a variety of purposes in woodworking, metalworking, and other trades. Unlike a traditional hammer, which has a metal head and a handle, a mallet typically has a wooden or rubber head and a handle that is integrated into the head.

The head of a mallet is typically larger and softer than the head of a hammer, and it is designed to deliver a softer blow. Mallets are often used to strike chisels and other cutting tools, as the soft head helps to prevent damage to the blade of the tool. They can also be used for assembly work, such as tapping wooden joints together, or for driving wooden dowels or pegs into place.



Basic Arc Welding Circuit Diagram

A welding machine is a device that is used to join two pieces of metal together by melting the metal at the point of contact and allowing it to cool and solidify, creating a strong and permanent bond. Welding machines come in many different types and configurations, but most consist of a power source, a control system, and a welding torch or electrode.

Arc welding , also known as stick welding or shielded metal arc welding (SMAW), is a type of welding that uses an electric arc to create heat and melt the metal being welded. The electric arc is created between the welding electrode, which is made of a metal alloy, and the metal being welded. The electrode melts and forms a molten pool of metal, which cools and solidifies to create the welded joint.

Arc welding machines typically consist of a power supply that delivers a high-current, low-voltage electric arc to the welding electrode. The electrode is held in a welding torch or electrode holder, which is used to control the position of the electrode and direct the arc to the point where the metal is to be welded. The welder can control the intensity of the arc and the rate of metal deposition by adjusting the welding current and voltage.

Electrodes used in welding are typically made from a metal alloy that is specifically designed for the welding process being used. The composition of the electrode depends on the type of metal being welded and the welding process being used, as different alloys have different properties that make them more suitable for certain applications.

Electrodes are designed to meet specific specifications, which may include the type of metal being welded, the diameter and length of the electrode, and the type of welding process being used. These specifications ensure that the electrode is compatible with the welding machine being used, and that it will produce a strong and reliable weld.

In addition to these specifications, electrodes may also be designated with a classification system that provides information about their composition, intended use, and performance characteristics. For example, electrodes used in shielded metal arc welding (SMAW) are classified according to their coating and the type of welding current they use, such as E6011 or E7018.

Gloves are a type of protective equipment that is worn on the hands to protect them from cuts, punctures, and abrasions. They are typically made from materials such as leather, rubber, or synthetic materials, and they may be lined with insulation to protect against heat or cold. Gloves may be designed for specific applications, such as welding or handling chemicals, and they may be available in different sizes and styles to fit different hand sizes and preferences.

Eye **shields**, also known as safety glasses or goggles, are a type of protective eyewear that is worn to protect the eyes from flying debris, dust, sparks, and other hazards. They are typically made from shatter-proof materials, such as polycarbonate, and they may be designed to provide additional protection from UV radiation or chemical splashes. Eye shields may be available in different styles, such as wraparound glasses or goggles that fit snugly against the face.