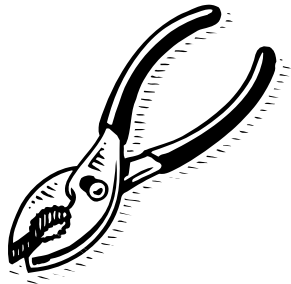


## ENVIRONMENTAL HEALTH AND SAFETY

Clover Safe notes are intended primarily for 4-H volunteers and members nine years and older

### #90 USING PLIERS SAFELY



Pliers are hand tools with two handles that function as levers about a pivot hinge. Most types of pliers have serrated jaws located at the tips. Pliers are primarily used for gripping, twisting, turning, and cutting objects. Common types of pliers include adjustable or slip-joint pliers, needle-nose pliers, channel-lock pliers, lineman's pliers, vise grips, and diagonal- or side-cutting pliers.

According to U.S. Consumer Product Safety Commission data, most plier-related injuries involve lacerations to the hands and fingers. The following presents information about safe use of pliers.

#### Using Pliers Safely

- Never use pliers that are broken, chipped, corroded, cracked, or have worn jaws or a loose pivot. Remove damaged pliers from use.
- Only use pliers for the uses or tasks that they are intended. Do not use pliers for tasks that require the use of a hammer or a wrench. Never use pliers to remove (turn) nuts or bolts.
- It is a good safety practice to wear eye protection if there is the possibility of generating flying particles or pieces of wire when using pliers.
- Assure cutting edges of pliers are sharp and jaw teeth are clean and unworn.
- When using side-cutting pliers, always make cuts at right angles. Do not rock side-cutting pliers from side to side or bend wire back and forth against cutting edges.
- Never use pliers on live electric circuits.
- Do not use pliers to push items away from you. If the pliers slip, you may jam your hand or fingers against a stationary object. Always use pliers to pull items toward you.
- Avoid exposing pliers to high temperatures. It could cause pliers to lose their hardening or tempering and fail unexpectedly.
- Do not use extensions on plier handles to increase the leverage force. Find and use a larger size pair of pliers in order to increase the leverage force.
- A recommended safety practice for cutting wire is to secure the piece of wire in a vise while holding the open end of the wire in your free hand. This will prevent the cut piece of wire from uncontrollably flying through the air.
- When cutting hardened wire, use side-cutting pliers that are specifically manufactured to make hardened wire cuts.
- Be aware that cushion grips on pliers are not designed to protect against electrical currents.
- If you are injured while using pliers, notify your project leader, parent, or guardian. Seek medical attention if the injury is serious.

