

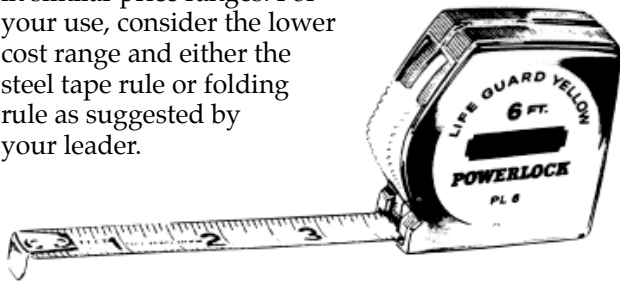


## Woodworking Tools

Wood Science Unit I contains information about a group of tools and some equipment you should have for your use. This unit contains information about more tools. You may want to add some of them to your tool set.

### Steel Tape and Folding Rule

In this unit, you will be making bigger things than before. Therefore, you may desire a steel tape rule or a folding rule. Both are available in similar price ranges. For your use, consider the lower cost range and either the steel tape rule or folding rule as suggested by your leader.



The steel tape rule is available in many lengths: 6, 8, 10, and 12-foot lengths. The 6-foot length probably is adequate for your use.



Folding rules are available with either standard inside reading or outside reading. The numbers on the inside-reading rule begin on the inside face. Thus the markings are close to the work when the rule lies on the work with the unfolded portion up.



### Scratch Awl

Now that you are doing more exact and accurate work than before, you may need a scratch awl for marking. It gives a very clean, sharp, distinct line for accurate cutting. It can be used to make a center point in wood for drilling.



### Attention Awl Users

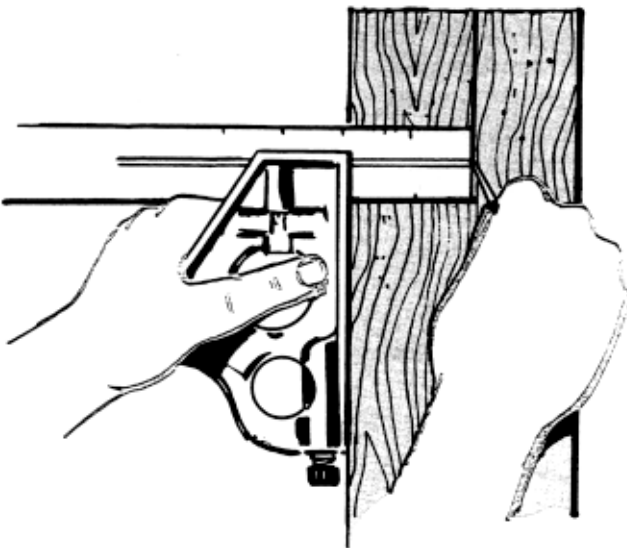
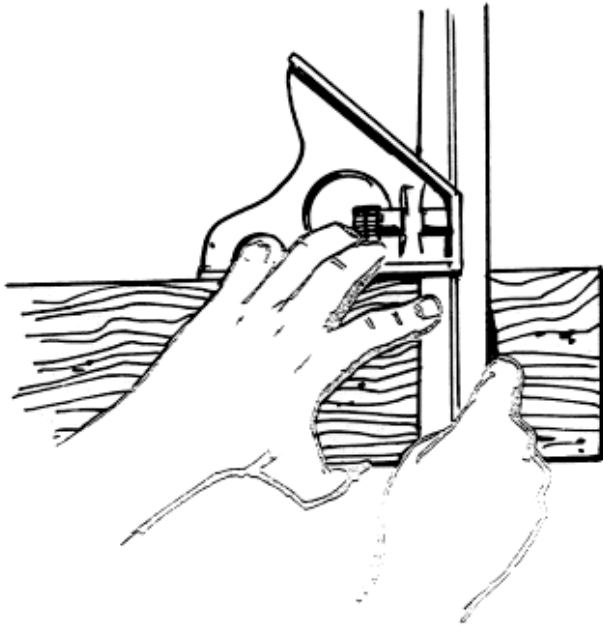
**An awl is sharp-pointed like an ice pick. It is used for marking lines or piercing small holes in wood. Because of its sharpness, it must be handled carefully at all times so it won't pierce your skin.**



## Combination Square

A steel combination square and a scratch awl marker or pencil can be used to make a line of uniform distance from one edge of the wood piece.

Set the blade of the square in the desired position and securely tighten the adjusting nut. Hold the square firmly against the edge of the wood. Slide the handle along the edge of the wood piece with one hand while marking at the end of the blade with the other hand. Slant or slope the marker in the same direction as you are moving the square.



## Pencil Compass

A moderately priced pencil compass works well for drawing circles or parts of circles. The pencil should be adjusted so that when the compass is closed, both the pencil point and the needle-like point of the leg are the same length. To use the compass, push the needle-like point into the center spot of your circle and move the compass in a circular motion. Slightly lean the compass in the direction you are moving.

When drawing a circle on a piece of paper, place a piece of cardboard or wood under the paper. Otherwise, the needle point may go through the paper and harm a nice tabletop.

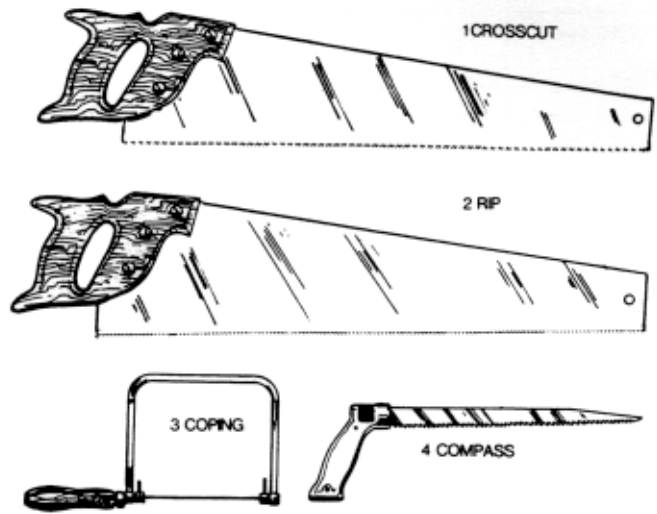
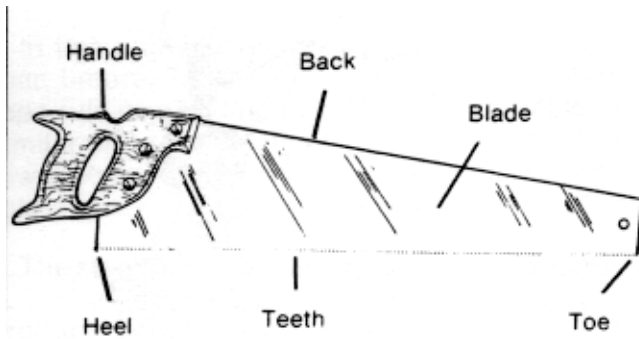




## Hand Saws

Saw size is determined by the length of the blade in inches. Some popular sizes are 20", 22", 24", and 26". The coarseness or fineness of a saw is determined by the number of teeth points per inch.

There are different types of hand saws, each suited for a particular job.



### Crosscut Saw

This saw is used frequently by woodworkers. Crosscut saws cut across the grain of wood, and they cut on both the forward and backward strokes. They are available with coarse teeth or fine teeth. The teeth have knife-like points.

A coarse, crosscut, 8-point saw works well for fast work and for green wood. A fine saw, 10 to 14 teeth points per inch, is better for smooth, accurate cutting and for cutting dry wood.

### Rip Saw

Rip saw teeth are shaped like chisels. They cut like a gang of chisels in a row. The rip saw cuts mostly on the forward stroke and is used for cutting with the grain of the wood.

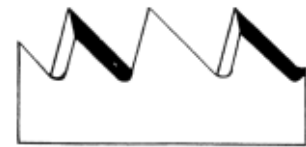
### Coping Saw

This saw is used commonly for cutting curves in wood. It is small with a narrow blade and cuts better on wood that is not too thick, such as 1/4" to 1" thick. As the saw cuts, it tears and breaks the wood fibers, cutting in the direction that the teeth are pointing. For example, if the blade is placed in your saw with the teeth pointing toward the handle, the saw will be cutting on the pull stroke.

### Compass Saw

This saw is small with a short, narrow blade. It is used to saw curves in wood too thick for a coping saw. To start an inside cut with the saw, you must bore one or more holes large enough to admit the point of the saw. Insert the saw point in the hole and cut with smooth, even strokes.

Crosscut Saw Teeth



Rip Saw Teeth

