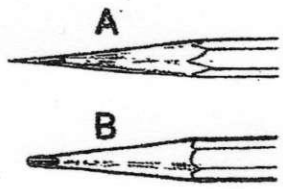
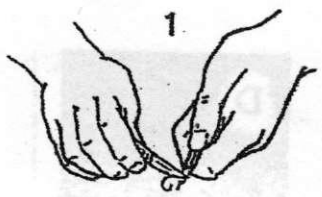
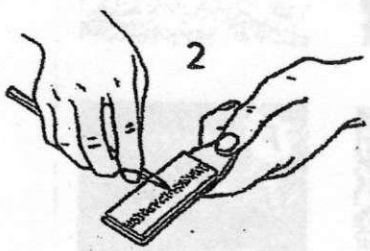
Pencil grades (*above*)
Pencils used to be made of sticks of soft metal – hence the name 'lead' for the pencil's core. These days leads are made from graphite, usually encased in wood. The hardness and thickness of the lead determines the pencil's grade: 9H is the hardest, 8B the softest. Hard pencils range from 9H to 4H; they are used for extremely accurate plans and drawings. Medium grades are 3H to 2B; these are the most commonly used pencils. Soft grades range from 3B to 8B.

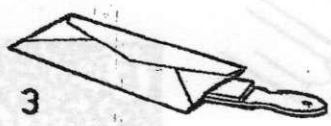
Sharpening pencils
The way you sharpen your pencil will affect the kind of mark it produces on the paper. Always sharpen the opposite end from the grade mark so that the pencil grade is still identifiable. Make sure that you don't sharpen pencils over your work area, as graphite dust falls on the paper and causes smudgy marks. Sharpen your pencil frequently during use so that the line it produces is regular. Conserve your pencil by sharpening sparingly. Ordinary pencil sharpeners tend to be rather wasteful; a penknife is preferable (1), as it can cut a long even point that can then be repointed on a sanding block (2). Keep your sanding block in an old envelope to contain the graphite dust (3). Don't drop your pencils as this breaks the lead; store them point up in a tin or pot for protection.

Points
Hard pencils should be shaped to a long, sharp point of even or gently tapering thickness. The hard leads are strong enough to be shaped this way to produce the fine, even lines necessary for technical drawings (A). Soft leads are used for broader strokes and should be sharpened to a rounded tip; wider leads can also be bevelled into a chisel shape with a penknife (B).



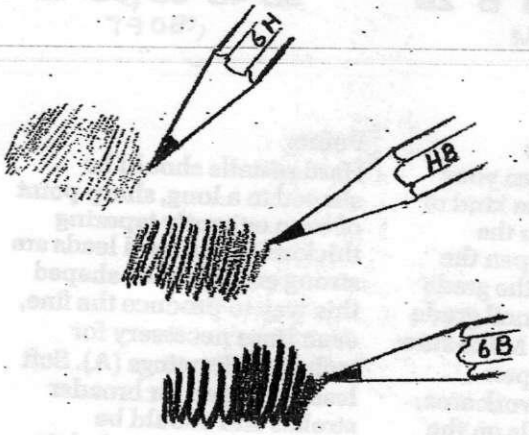




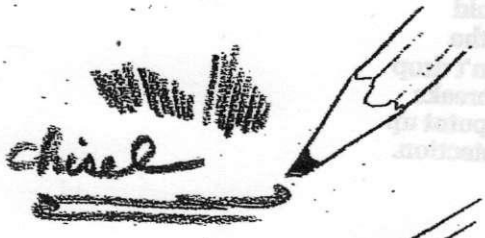


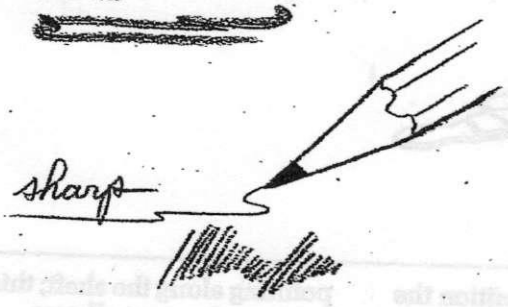
Working with pencils
When you are drawing, the pencil acts as an extension of your finger, your hand, or even your arm, following the movement made by your muscles. The way in which you hold the pencil will determine the kind of lines that you can produce.

1 In the writing position the pencil is held close to the tip, and the hand is rested on the paper. This gives maximum control over fine detail.
2 The sketching position gives more freedom; the pencil is held near the end, with the fingers curling toward the palm.
3 The pencil can be held near the end with the fingers pointing along the shaft; this position does not allow a great deal of control.
4 If the pencil is held with the first finger along the shaft, this gives good control for exerting gentle or firm pressure for different weights of line.

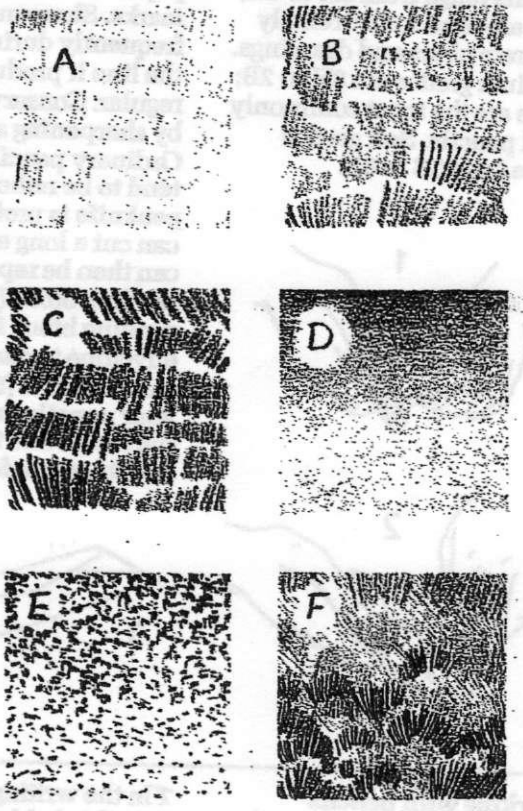


Pencil
Very hard pencils contain a higher proportion of binder, and soft pencils contain a higher proportion of graphite. The range of leads available is constantly being broadened—the range shown here, from 6H (very hard) to HB (medium) to 6B (very soft) will suit most artists' needs, but there are still harder and softer leads available.





Pencil
Many artists use a combination of sharp points for fine lines and "chisel" points for broader lines. A point may be given a chisel shape simply by rubbing it against a piece of scrap paper or fine sandpaper.



Pencil
Here are just a few examples of pencil strokes: (A) 6H pencil with chisel point; (B) HB with chisel point; (C) 2B with chisel point; (D) HB with the lead held flat against the paper, pressed with more firmness near the top; (E) 2B pointed, used in a stabbing motion; (F) underlying strokes are 2H pointed, next are HB chisel and darkest are 2B pointed.