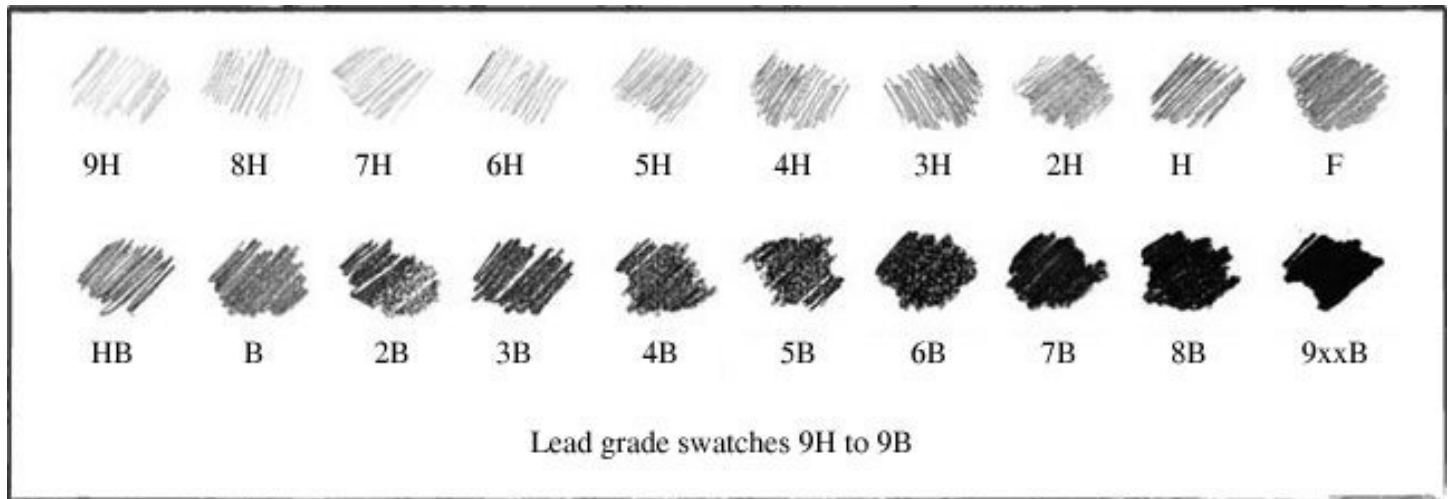


# Drawing Fundamentals: Session 3 — Drawing Pencil Grades



There are two graphite grading scales used to measure the hardness of a pencil's graphite core.

## NUMERICAL GRAPHITE SCALE

The first graphite grading scale is a numeric scale. Using this scale, the hardness of the core is often marked on the pencil — look for a number (such as “2” “2-1/2” or “3”). The higher the number the harder the writing core and the lighter the mark left on the paper. As the pencil core becomes softer (through the use of lower proportions of clay) it leaves a darker mark as it deposits more graphite material on the paper. Softer pencils will dull faster than harder leads and require more frequent sharpening.

## HB GRAPHITE SCALE

The second graphite grading scale is known as the HB scale. Most pencil manufacturers outside of the U.S. use this scale, using the letter “H” to indicate a hard pencil. Likewise, a pencil maker might use the letter “B” to designate the blackness of the pencil's mark, indicating a softer lead. The letter “F” is also used to indicate that the pencil sharpens to a fine point.

Historically, pencil makers also use combinations of letters to tell us about the graphite — a pencil marked “HB” is hard and black, a pencil marked “HH” is very hard, and a pencil marked “BBB” is really, really black! Today, however, most pencils using the HB system are designated by a number such as 2B, 4B or 2H to indicate the degree of hardness. For example, a 4B would be softer than a 2B and a 3H harder than an H.

## GRAPHITE SCALE COMPARISONS

Generally, an HB grade about the middle of the scale is considered to be equivalent to a #2 pencil using the U.S. numbering system.

**In reality however, there is no specific industry standard for the darkness of the mark to be left within the HB or any other hardness grade scale.** Thus, a #2 or HB pencil from one brand will not necessarily leave the same mark as a #2 or HB pencil from another brand. Most pencil manufacturers set their own internal standards for graphite hardness grades and overall quality of the core, some differences are regional. In Japan, consumers tend to prefer softer darker leads; so an HB lead produced in Japan is generally softer and darker than an HB from European producers.

Finding what works best for your own artistic and writing needs is generally a matter of personal preference and experimentation with different brands of pencils.