

## Minerals in the Scale of hardness

Name \_\_\_\_\_

Date \_\_\_\_\_

The determination of the hardness of a mineral can be an important step toward its identification. Hardness is the resistance which the smooth surface of a mineral offers to being scratched. A diamond is the hardest of all substances and can only be scratched by another diamond.

Over a century ago, Friedrich Mohs by experimentation made up a scale of hardness which is referred to as *Moh's Scale*. It does not imply an exact hardness, but is set up so that any mineral can scratch all those beneath it in the scale, or can be scratched by those above it in the scale.

Some familiar objects can be used in conjunction with this scale. A fingernail has the hardness of 2.5, a copper coin between 3 and 4, a nail about 5, common window glass 5.5, a steel file or porcelain tile 6.5. Other minerals are sometimes substituted in the scale such as topaz for beryl since they both have a hardness of 8.

MOHS HARDNESS SCALE	
Mineral	Hardness
Talc	1
Gypsum	2
Calcite	3
Fluorite	4
Apatite	5
Feldspar	6
Quartz	7
Topaz	8
Corundum	9
Diamond	10

In this lab activity you will use the mineral samples found in the Mohs scale of hardness in the red box on your lab table. Use the familiar objects in the white envelope to determine the hardness of the minerals found in your mineral kit. Remember, the mineral in the plastic container is a diamond. The diamond will scratch everything in the kit. The plastic container cannot be opened! Sorry!

- Copper penny
- Common glass
- Steel nail
- Magnet
- Black streak plate
- White streak plate
- Steel file

Name of Mineral

Methods used to determine hardness

Name of Mineral	Methods used to determine hardness