

Name \_\_\_\_\_

Hour \_\_\_\_\_

## Scratch Test Lab

### Materials Needed

Penny  
Pencil  
Steel Nail  
Fingernail

### Question

Which material is hardest: penny, pencil, fingernail, or steel nail?

### Hypothesis

The hardest item is \_\_\_\_\_.

### Observations

1. Record your observations of what happens when you use your fingernail to scratch the graphite at the tip of your pencil.
2. Record your observations of what happens when you use your fingernail to scratch the penny.
3. Record your observations of what happens when you use the penny to scratch the graphite at the tip of your pencil.
4. Record your observations of what happens when you use the steel nail to scratch the penny.

### Results

The hardest item is the \_\_\_\_\_.

The least hard item is the \_\_\_\_\_.

### Conclusion

My hypothesis was \_\_\_\_\_ by the results of this experiment.  
supported or not supported

I came to this conclusion because my observations showed \_\_\_\_\_

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In 1812, the Moh's Scale of Mineral Hardness was developed by the German mineralogist Frederich Mohs (1773-1839), who selected the ten minerals because they were very common or easy to get. The scale is somewhat made-up because the difference between each number is not equal, but it is a standard scale now that it has been around for almost 200 years.



## Moh's Hardness Scale

Hardness	Mineral	Description
1	Talc	Fingernail scratches it easily.
2	Gypsum	Fingernail scratches it.
3	Calcite	Copper penny scratches it.
4	Fluorite	Steel knife scratches it easily.
5	Apatite	Steel knife scratches it.
6	Feldspar	Steel knife does not scratch it easily, but scratches glass.
7	Quartz	It scratches steel and glass easily.
8	Topaz	It scratches steel and glass.
9	Corundum	It scratches Topaz.
10	Diamond	It is the hardest of all minerals.