Date: _____

HARDNESS TESTING

When you touch rocks, it may feel as if they are all the same hardness. But they are not. Scientist use a numbered scale (the Mohs Scale) to rank the hardness of rocks and minerals. Talc has a hardness of one, it is the mineral with the lowest hardness, it can be scratched by all other minerals. A diamond has a hardness of ten, it is the hardest mineral, it can scratch all other minerals. A rock with a hardness of five would be able to scratch some rocks (those with lower hardness), but it would be scratched by some rocks (those with a higher hardness).

Hardness Number	Example Mineral	Example Item for Scratching		
1	Talc	Soft Pencil Lead		
2	Gypsum	Blackboard Chalk, Fingernail		
3	Calcite	Copper Penny		
4	Flourite	Brass or Iron Nail		
5	Apatite	Steel Knife Blade		
6	Feldspar	Glass, Steel File		
7	Quartz	Flint Sandpaper		
8	Topaz	Spinel		
9	Corundum	Emery Sandpaper		
10	Diamond	Carborunum Sandpaper		

The Mohs Scale

<u>Equipment</u>

You will be given the following items:

- A variety of rocks and minerals
- A nail
- A steel file
- A penny

Testing

- 1. Record the name of a rock or mineral in your chart.
- 2. Scratch the rock or mineral with your fingernail, a penny, a nail and the steel file.
 - a. If the sample does not scratch place an x in the chart beside the item you used.
 - b. If the sample scratches, place a checkmark in the chart beside the item you used.
- 3. Repeat steps 2 and 3 for 9 more rock or mineral samples.
- 4. Determine, as best you can, the Mohs number for your samples.

Observatio	ons

De els Nerre e	Item Used to Scratch				Mohs
коск мате	Fingernail	Penny	Nail	Steel File	Number