

KLUTZ[®] MAKER LAB

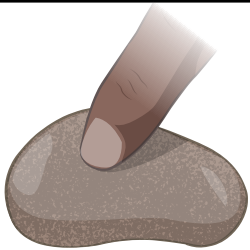
EXPERIMENT

YOU WILL NEED:

- Your fingernail
- Penny
- Clean rocks
- Pencil

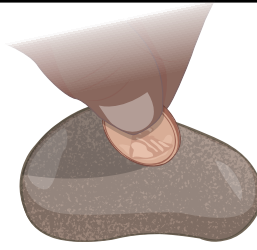
ULTIMATE ROCK BATTLE

In this experiment, you'll use rocks you find in the wild and pit them against each other. Extreme!



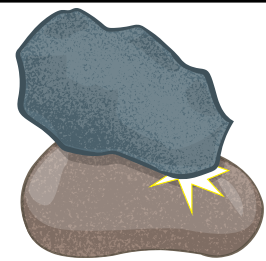
1 Working with one rock at a time, take a rock and try to scratch it with your fingernail. Record any rocks that you can scratch in the log below.

Your fingernail has a hardness of 2.5 on the Mohs' Scale, so if you can scratch the rock with your fingernail, then you know your rock has a hardness of only a 1 or a 2.



2 Now try scratching each rock with a penny. Record your findings in the log.

A penny has a hardness of about 3.5. So, if you're able to scratch your rock with a penny, that means your rock has a hardness of 3. If you're not able to scratch your rock, that means it's harder than 3.5.

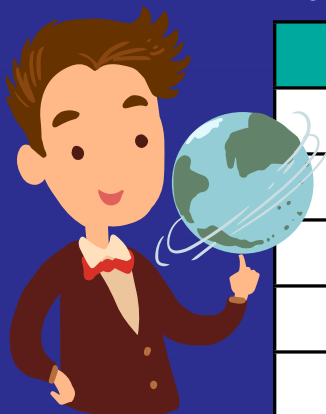


3 It's a competition for the title of the Toughest Rock! Pit your rocks against each other by seeing what happens when you scratch them against each other. Which rock scratches which?

If you discovered that your first rock has a hardness of 3, how can you use that information to figure out the hardness of your other rocks?

MOHS KNOWS

Back in 1812, a man named **Friedrich Mohs** staged a major rock and mineral competition: He used rocks and minerals to scratch each other to determine how hard they are. He came up with a scale running from 1 to 10, with 1 being the softest rock (talc) and 10 being the hardest (a diamond).



ROCK NAME	FINGERNAIL	PENNY