

CHANGING PENNY COLOUR



SUPERNOVA
DALHOUSIE UNIVERSITY | HALIFAX, NOVA SCOTIA

LEARN ABOUT THE OXIDIZATION OF COPPER!

6

MATERIALS

- 1 dirty penny (dull and/or greenish)
- 3 small mason jars with lids
- 1 tsp table salt
- 2 sheets of paper towel
- 300mL vinegar
- 300mL water

15 MINS

PROCEDURE

Step 1

Combine salt and half of given vinegar together in a little mason jar and stir.

Step 2

Then place the dirty penny into the jar for 30 seconds (the penny should come out clean!).

Step 3

Take another mason jar, cover the bottom with a piece of paper towel, soak the paper towel with vinegar.

Step 4

Place the clean penny on the paper towel, put the lid on and seal the mason jar to be left at least overnight.

Step 5

Observe the penny. It's green because over time, as copper and oxygen have a reaction, malachite is formed which is the greenish substance. The vinegar on the paper towel makes the reaction between copper and oxygen happen more quickly.

PURPOSE & SCIENCE OUTCOMES

- Copper oxide is first formed when copper and oxygen are exposed to each other, then over time the malachite is formed.
- A good example of this is the Statue of Liberty: it used to be the same colour as a penny!

ANY QUESTIONS? REACH OUT @SUPERNOVAATDAL