

Vinegar Pennies

Have you ever heard of acid rain? Here is an experiment you can do to change the color of copper pennies by soaking them in vinegar (acetic acid)? Try it!

Materials

- Some pennies
- Paper towels
- 1 saucer (or similar container)
- Vinegar (acetic acid)

NOTE: Vinegar (acetic acid) can cause irritation to skin, eyes and nose. Use it carefully!!

Instructions

1. Fold the paper towel in half; fold it again to form a square.
2. Place the folded towel in the saucer.
3. Pour enough vinegar into the saucer to wet the towel.
4. Place the pennies on top of the wet paper towel.
5. Wait 24 hours.

Food for Thought

- What do you think makes the penny stay shiny even in the vinegar?
- Why do you think silverware gets tarnished?

What happens & how does this work?

Acid molecules in the air are a major cause of air pollution. Cars, planes, ships and other engines cause acid rain, which erodes buildings and other structures. The same thing that happens to the penny happens to the copper in roofs when acid rain falls. When vinegar (acetic acid) reacts with copper, it gives the copper a green coating. The acetate part of the acid combines with the copper on the pennies to form a green coating of copper acetate.