

Corroding Metals

Grade Levels:

7-9

Questions:

What types of metal are susceptible to corrosion?

What kinds of liquid promote corrosion?

Possible Hypotheses:

Steel wool will/will not corrode when exposed to water/juice.

Stainless steel will/will not corrode when exposed to water/juice.

Aluminum will/will not corrode when exposed to water/juice.

Copper will/will not corrode when exposed to water/juice.

Materials:

Bowls

Water

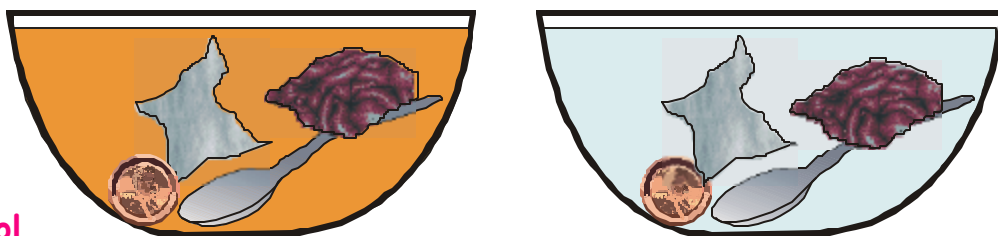
Orange juice

Two pieces of steel wool

Two stainless steel teaspoons

Two pennies

Two squares of aluminum foil



Procedure:

1. Fill two bowls - one with water and the other with juice.
2. Put one piece of each of the metal objects in each bowl.
3. Leave the metals in the liquids for a week where they will not be disturbed.
4. After one week, take out the metal samples and examine them. Record your observations.

Analysis and Conclusion:

Which liquid caused more corrosion? Which metals were more susceptible to corrosion? Was there a combination of liquid and metal that caused the most corrosion? In what situations could you use metals that corrode and in what situations should you use metals that don't corrode? Research the chemical explanation for corrosion.