Science 14

Unit A: Properties of matter

Acids and bases in corrosion

Indicators in household products

- Vinegar and household ammonia are both clear solutions with different indicator colours.
- Vinegar reads below 7. Household ammonia reads above 7.

Acid and base

- Vinegar is an acid in this lesson, and its pH number is below 7.
- Household ammonia is a base, and its pH number is above 7.

Key terms

acid

A solution that turns indicator the acid colour, conducts electricity and can neutralize a base.

base

A solution that turns indicator the base colour, conducts electricity and can neutralize an acid.

pH

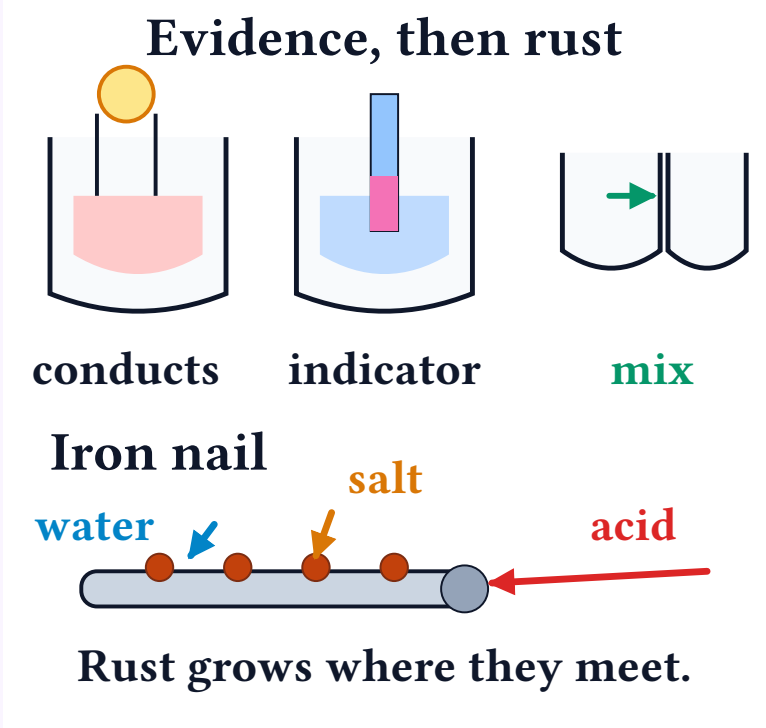
A number scale of acidity and basicity. Values below 7 are acidic, 7 is neutral, and values above 7 are basic. (pH)

neutralization

The reaction in which an acid and a base consume one another's characteristic properties.

Evidence first, then the corrosion story

- Conductivity, indicator colour and neutralization are the three identifying behaviours.
- Acids, bases, salts, humidity and heat speed the corrosion of iron.



A drink at pH 3

- The indicator turns the acid colour.
- A pH of 3 agrees, so the drink is an acid.

Soapy water

- Soapy water feels slippery in the sink.
- Use the indicator colour or the pH number to place it.

pH 11 and a base colour

- The sample conducts and turns the base colour.
- A pH of 11 places it with the bases.

Classification key

- Use the indicator colour or the pH number to call a solution an acid or a base.
- Use one cleaner at a time. Keep ammonia and bleach in separate jobs.