SCIENCE FAIR PROJECT

Evaporating Liquids

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STATEMENT OF THE PROBLEM

• Do all liquids evaporate at the same rate?
• Summarize your research here in three to five significant facts:
  
  — My home temperature ranges from 60° - 78°
  
  — The molecular makeup of water is H2O
  
  — The molecular makeup of Ethanol is C2H5OH
  
  — The molecular makeup of Acetone is (CH₃)₂CO
  
  — Evaporation is the act of a liquid changing into a gas

• Citations (your sources of where you found the information)

  Include Author, Title of the work, Year published, and page #


HYPOTHESIS

• If I put 250 milliliters water, orange juice, alcohol, and nail polish remover in four separate beakers and put them in a room (unbothered), then the water will evaporate the fastest, because it has no added chemicals, making it easier to evaporate.
PROCEDURE: MATERIALS

• Water
• Orange juice
• Alcohol
• Nail polish remover
• Four beakers with measures
• Pen and paper for notes
PROCEDURE: STEPS

• Pour the same amount of liquid into each beaker
• Set the beakers in a dry location in my house
• Monitor the levels of the liquids for 1 week
• Note any differences
• Record data
• Make graph
VARIABLES

- Constant: Temperature
- Controlled variables: Water
- Independent (manipulated) variable: Amount of liquids in each beaker
- Dependent (measured) variable: Amount of liquid in each beaker after evaporating
DATA/OBSERVATIONS

• My hypothesis is unsupported by the data

• The Nail polish went from 250ml to 100ml in 4 days
OBSERVATIONS

• The Nail polish remover evaporated at a much faster rate than any of the other liquids.
• The water was actually one of the slowest to evaporate.
• Throughout the experiment the Nail polish remover lost its odor as it evaporated, which led me to believe that it was evaporating the fastest because of the fumes that were given off from the liquid.
CONCLUSION

• All liquids do not evaporate at the same rate
• The Nail polish remover evaporated faster because of the fumes that it gave off
• The fumes made up most of the Nail polish remover, and when those are released into the air, the liquid depletes
• My hypothesis was unsupported by the data in the experiment
• Water was the second slowest in evaporating