Evaporation & Temperature Change

Theory: Kinetic Theory

Purpose: To study how evaporation of different substances affects temperature.

Materials:
Thermometer
Several Balls of Cotton
Small samples of Acetone, Ethyl Alcohol, Isopropyl alcohol, water and perume
Eye Goggles

Procedure:

1. Twist the bulb end of the thermometer into a cotton ball.
2. Place the thermometer with the cotton ball on the desk and prop up the cotton ball end with a pencil so that it does not touch the desk surface.
3. Note and record the temperature of the thermometer.
4. Add enough alcohol to wet the cotton ball (10 drops or so).
5. Watch the thermometer to see if a change in temperature occurs. Record the lowest reading on the thermometer. Record the time it takes to change the temperature.
6. Remove the cotton and allow the temperature to return to room temp.
7. Using new cotton balls, repeat steps 1-6 with Acetone, Isopropyl alcohol, Water and Perfume.

Data:

Observations:

	Substance	Beginning Temp (C)	Final Temp (C)	Time
Ethyl Alcohol				
Acetone				
Isopropyl Alcohol				
Water				
Perfume/Cologne				

Calculation:
Use a bar graph to represent the temperature change (y) for each substance (x).

Discussion:

1. Which substance caused the lowest temperature when evaporated?
2. How is this result related to the motion of molecules?

Conclusion: