Item one

We write a scientific report to inform other people what transpired during a practical investigation. A scientific report has the following sections;

1. Title:
2. Aim:
3. Hypothesis:
4. Variables which includes; independent, dependent and controlled variables
5. Equipment and materials used
6. Procedure followed to obtain the results in the experiment
7. Record of data/ results
8. Data analysis/ discussion of data
9. Conclusion

From the scenario question given we can have our report written as:

An investigation of the cooling effect of evaporation Using warm water and ether.

Aim: To determine the cooling effect of evaporation of water and ether.

Hypothesis: Evaporation as a cooling effect on both water and ether.

Variables;

Independent: Time

Dependent: temperature

Controlled: initial temperature, environment

Materials required:

Thermometer

Two glass beakers

Bunsen burner

Stop clock

Procedure:

1. Two glass beakers were filled with equal amount of water and ether respectively.
2. The initial temperature of both liquids was measured using the thermometer and recorded.
3. The beakers containing water and ether were separately placed on the tripod stand over the Bunsen burner flame and warmed to 360c and then left to cool.
4. The temperature of the two liquids were recorded at a regular interval of every after two minutes, and the results recorded.

Results:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Temperature (0c) | 36.0 | 34.0 | 33.0 | 31.0 | 30.0 | 30.0 |
| Time (minutes) | 0 | 2.0 | 4.0 | 6.0 | 8.0 | 10.0 |

Data analysis

From the table, the results show that the temperature of both water and ether continued to decrease for the first 6 minutes before attaining a constant temperature between 8 and the 10th minutes. The table also shows no cooling effect difference between water and ether since similar temperature change values were obtained.

Conclusion:

Evaporation has a cooling effect on both water and ether.