

Name: _____ Class: _____ Date: _____

Coke Distillation Lab

Learner Outcomes:

- Distinguish among pure substances, mixtures and solutions, using common examples
- Describe technologies based on the solubility of materials.

Key Terms:

Solubility

Solvent

Solute

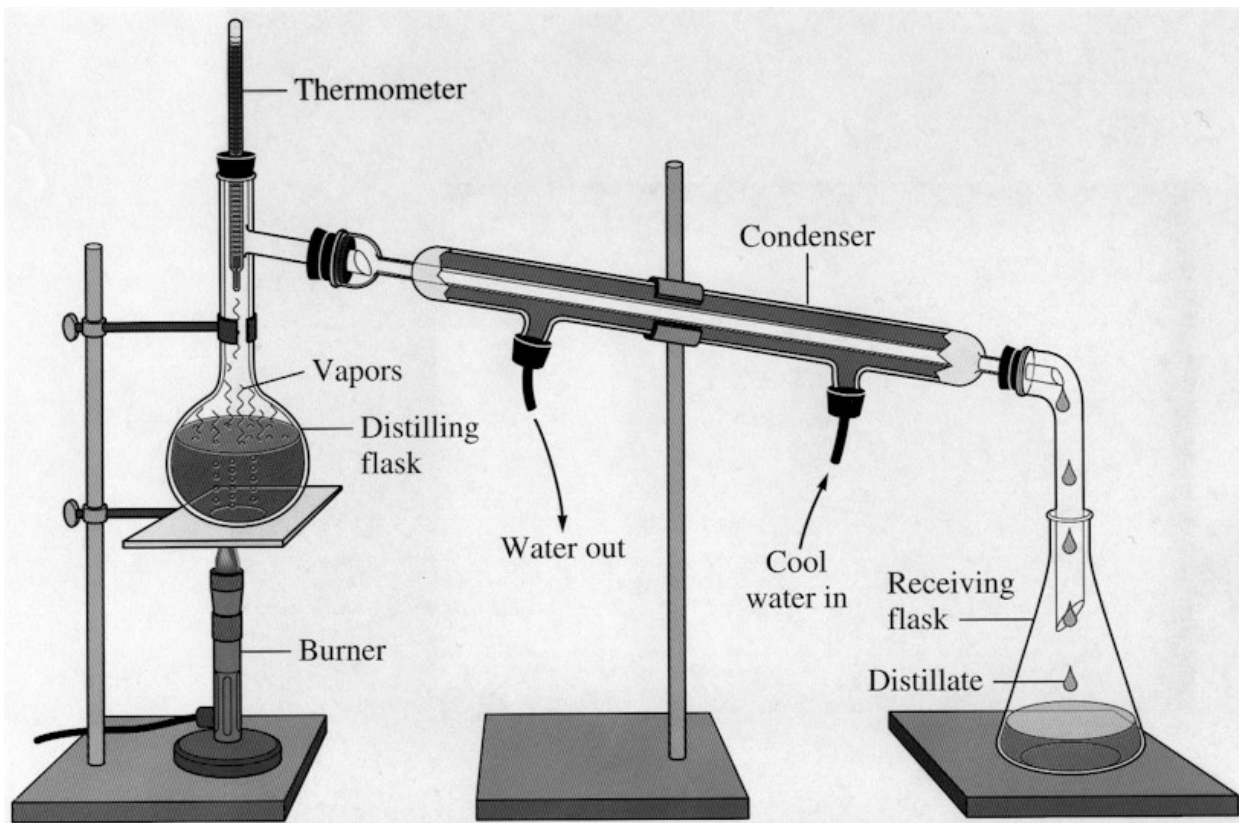
Distillation

Background Information: Distillation is a process by which the components of a solution or mixture can be separated according to boiling point. Distillation is often used to produce pure substances.

Research Question: Is coke a pure substance or a mixture? How can we prove which one it is?

Hypothesis: Provide an educated statement for the above questions

Materials and Procedure: See diagram below:



Analysis:

1. What is collected in the receiving flask at the end of the lab?
2. What remains in the distilling flask at the end of the lab?
3. Why is it important to use boiling stones?
4. Why do you need a constant flow of water in the distillation apparatus?
5. Explain the process of distillation. (Use the terms evaporation and condensation in your answer)
6. Is coke a pure substance or a mixture? (Use the results of this lab to "prove" your answer)