

Name: _____

Date: _____

Separation of a Mixture Lab

Background:

It is often necessary to separate mixtures of two or more substances. There are different ways of accomplishing this process. It might be a purely physical procedure, by *distillation* where substances of different boiling points are involved, or by the differences in the *solubilities* of the components of the mixture. In this experiment a mixture of sand, salt, and iron filings will be separated in order to determine the *percent composition* of a mixture.

Objective:

To separate the components of a mixture based upon physical characteristics of each component within the mixture. Secondly, to determine the mass of each component, and determine the percentage of the mixture comprised of each component.

Absentee version:

Discussion:

Explain the process of distillation and describe how it could be used to separate a mixture of liquid water, ethanol, and acetone. In your explanation, describe the equipment needed. Include a picture or drawing.

Describe how a mixture of the solids iron, sand, salt, and sugar can be separated. A picture or drawing is not necessary here, but you should be clear that each component needs to be separated and in its solid form after separation.

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