

Fantastic
4

Name Super Student

Date 8-31-11 Period 8

Separating Mixtures

Purpose (Learning Target)

Students will be able to predict the outcome of separating mixtures.

Hypothesis:

1. What do you think will happen to the mixture after you shake the contents and allow them to settle? I think the denser materials will settle first near the bottom in the order of gravel, sand, clay, red dirt, and perlite.

Materials:

1. Five soils, (red dirt, gravel, perlite, sand, loma clay)
2. 3 pints of water
3. jar with lid.

Etc.

Procedure:

1. Observe characteristics and make predictions.
2. Place 5 soils in jar, add water and shake vigorously after sealed.
3. After 15 minutes evaluate and compare data results.

Data/Results/Observations: Copy blank table found in lab paper

Predicted Order	Actual Order
Gravel	Gravel
Sand	Clay
Clay	red dirt
Red Dirt	sand
Perlite	Perlite

gravel - pink rocks size of pink nail
perlite - felt like dipping dots
small soft foam
sand - soft smooth
loma clay - clumpy crumbs of
red dirt - ^{rock} thick, settle, sticky



Analysis (Levels 1-3 are required)

Possible /Received

Level 1: Define Mixture A mixture is when
2 or more substances are distinguished from
each other because they are separated by physical
means.

1 1

Level 2: Explain why the substances in the mixture settled in
the order in which they did? In the mixture the
substances were separated by the order of
gravel, clay, red dirt, sand, and perlite.

1 1

Level 3: Using data support why the mixture settled the way it did?
After reviewing the data I think the mixture
settled the way it did because of having
more density in the different materials.

1 1

Level 4 (Optional)

1 1

Compare in detail the results of this lab to an outside occurrence.
The results in this lab reminded me of peaches
and cream. After you pour whipped cream
and peach juice together the juice and whipped
cream separate from each other.

Total 4 4

Yum!

Conclusion (Required)

1. Conclusions must be written in paragraph form. Do not number or bullet a conclusion.
2. Restate the purpose / question/ problem.
Topic Sentence
3. Tell whether you accept or reject the hypothesis based on the results from this experiment.
Introduction
4. What did you learn in this lab?
5. Now I wonder? (What are possible further experiments or questions that you could ask based on this experiment?)

In this experiment I predicted the outcome of separating mixtures. My hypothesis was half way correct. I accept that denser materials settle first however, my order was different then the end result. IF I had a scale I could have accurately measured the material density better. From this lab I learned that materials with more density sink faster because of gravity causing it to settle. After seeing the results of this experiment I now wonder if denser liquids would effect the way the materials settle.