

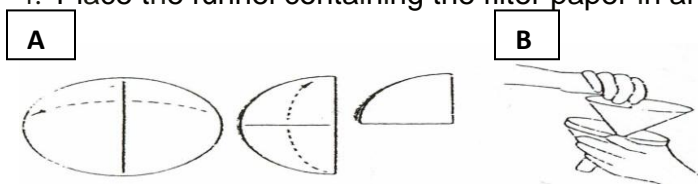
Title: Investigating Suspensions, Solutions, and Emulsions

Purpose: How do you tell what type of mixture you have formed?

Hypothesis:

Part A

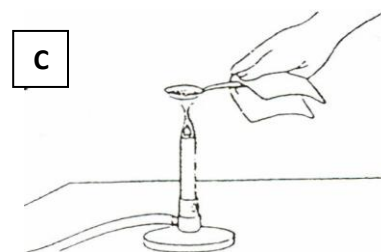
1. Fold the filter paper, as in **A**. Place it in the funnel as in **B**.
1. Pour soil into a test tube to a depth of 0.5 cm. Pour sugar into another test tube to the same depth. Add water to both test tubes until they are about two-thirds full.
2. Shake the test tubes to mix the ingredients.
3. Allow the test tubes to remain still for 5 minutes. Observe and record what happens to the contents.
4. Place the funnel containing the filter paper in an empty test tube.



5. Shake the soil and water mixture well and pour it through the funnel. Record what you observe.
6. Place some of the substance that *passed through* the filter paper in the spoon.
7. Using a hot pad, hold the spoon over a lighted Bunsen burner as in **C** until all of the liquid boils away. Record your observations of any residue on spoon.

CAUTION: Be sure long hair is tied back and kept clear of the flame and do not touch the hot spoon.

9. Repeat steps 1 and 5-8 for the sugar and water.



Part B

1. Fill two test tubes with water.
2. Add oil to both tubes until 3/4ths full.
3. Add some soap to one of the test tubes.
4. Cover both tubes with your thumbs and shake vigorously for at least 20 seconds.
5. Allow test tubes to sit undisturbed for approx 5 minutes.
6. Look at the middle of both test tubes.
7. Record your observations of the differences.

Questions

1. Name and describe each of the type of mixture you made in both parts.
2. What did the soap do to the oil and water mixture?
3. In Part B, which test tube would you consider the control?