

Elements, Compounds and Mixtures

Question 1: Say some names of mixtures in daily life.

Question 2: Say some names of pure substances in daily life.

Experiment 1

Materials: charcoal, filter paper, funnel

Procedure:

Fill half a glass with water.

Put one table spoons of carbon activated (charcoal) and stir.

Take a circular filter paper. Fold it twice.

Now open these folds in such a way that three layers come on one side and one on the other side. It will make a cone.

Take a funnel and wet its inner side with water.

Now fit this paper cone in the funnel and place this funnel in a glass.

Pour it slowly through the funnel.

Question:

What is the color of the filtrate?

Prediction:

- (a) Black (Same as before)
- (b) Black but lighter than before
- (c) Clear water

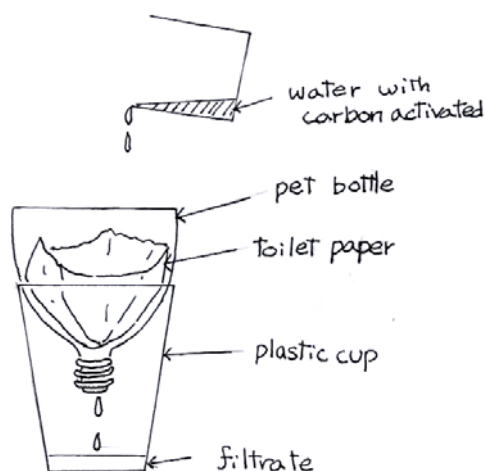
Experiment 2: Filtration by using toilet paper

Question:

If you change a filter paper to toilet paper, what is the color of the filtrate?

Prediction:

- (a) Black (Same as previous one)
- (b) Black but lighter than previous one
- (c) Clear water



Experiment 3: Filtration of salted water

Materials: glass, salt, funnel, filter paper

Procedure:

- Fill a half of a glass with water.
- Put a spoon full of salt and stir.
- Pour it slowly through a funnel with a filter paper.

Question:

How is the filtrate taste?

Prediction:

- (a) It is salty.
- (b) It has no taste.

Experiment 4: Filtration of Cola

Materials: Glass, cola, filter paper, funnel.

Procedure:

- Fill a half of a glass with cola.
- Pour it slowly through a funnel with a filter paper.

Question:

What is the color of the filtrate?

Prediction:

- (a) It is brown same as previous cola.
- (b) It has no color. It will lose its color.

Experiment 5: Separation of salt from ‘Achaar’

Materials: Achaar, spoons, spirit lamp,

Question:

- ‘Achaar’ contains a lot of salt.
- Can you separate salt from ‘Achaar’?
- Write down your ideas in the prediction on the next page.
- Write all process to separate.
- Discuss with each other.

Hint: Salt is nonflammable
Most organic compounds are flammable.

Procedure:

- (1) Cut achar as small as possible with a cutter.
- (2) Put it on a table spoon.
- (3) Burn it completely with a spirit lamp.
- (4) After burning put all ashes and charcoal into a plastic cup.
- (5) Pour a little amount of water in the plastic cup and stir it well.
- (6) Put the black liquid on another table spoon and heat it.
- (7) Vaporize the water and the residue is salt.

