

## Quality of water

### Objective

To study the presence of dissolved matter in water from different sources and relate it to its suitability for drinking purpose.

### Background

The drinking water that we get is contaminated with various dissolved substances such as calcium, iron, aluminium salts, etc. which often cross the permissible limits. The water in extreme cases may receive effluents from factories, small textile, printing and dyeing units or farm run-offs. Outright harmful constituents such as arsenic, fluorides, copper, mercury and lead are also present in drinking water in wide parts of India. These substances cause serious ailments. It is worthwhile to find out by simple means the presence of the various impurities.



### Methodology

1. Collect samples of water (about 200 ml) from different sources, e.g. handpumps, wells, tube wells, tanks, ponds, rivers and taps.
2. Filter the suspended matter from the water samples by passing through a cotton plug kept in a funnel.
3. Now take 100 ml of each sample separately.
4. Evaporate water from each sample till dry. For this, take water in a steel vessel and heat gently till all the water has evaporated.
5. Collect the dry mass separately and weigh it.



6. Identify the impurities by analysing the solid residue, if possible.

### Conclusion

Drinking water should be safe. The water supplied through safe drinking water system is good for health. Now a days we are using water which is stored in plastic bottles. It is our responsibility to check whether this water is good or not. Impure water leads to many diseases. Not only the pollutants from the facilities but the salts in the soil, wastes that join in the water flow also cause pollution. The water is being polluted in so many ways, so let's drink water after boiling only.

Draw your conclusion about the amount of dissolved matter in water.

### Follow-up

1. If possible, find out with the help of experts/scientists the harmful constituents present in the dry mass and present it before the class and community.
2. There is no supply of pure drinking water for all. Why? Discuss about reasons, suggest your ideas to over come this problem.



Idols made from non biodegradable, hazardous materials like plaster of paris and coated with toxic paints containing mercury, cadmium, lead and carbon when immersed into gases and other water bodies contaminate the water.