## Problem based Task Sheet: Elements, Mixtures and compounds.

"Tom and his friends were given a bucket full of dirty water which had sand, stones, nails and lots of paper was present in the dirty water. Their teacher had asked them that they should come up with methods to obtain pure and clear water. But they are stuck as they do not know how to obtain clear water. Given this request from Tom and his friends that they prefer your help, write a clear and methodological report as to how they can separate the substances."

Note: Your answers must be related to the problem entirely and must be written in a sequential manner.

Hint: suggest few techniques you have learnt. Give the name of the technique, the principle behind the technique and method of operation of the technique. Substantiate your answers with diagrams.