

6 Activity: How to make water clear?



Dirty water



Clear water

To make water clear you must let it decant and then filter it.

To build a water filter, you need :

Two buckets



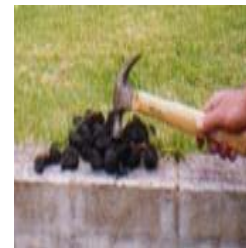
1. Make a few small holes in the bottom of one of the two buckets. Check that the water flows below, but that the sand does not escape through the holes.

Sand



2. Wash the sand 5 or 6 times: stir it with your hands.

Coal



3. Crush the charcoal into small pieces.



5. Pour in 5 cm of sand and cover it up with 8cm of charcoal.



6. Add the sand until it is 10 cm from the edge of the bucket.

The filter is ready



Cleaning the filter before its first use.

Water should begin to flow into the bucket underneath, at approximately half a litre per hour.



Initially the water will probably be black, with lots of coal dust.
After about an hour the water will flow clear.

The filter will then be ready for use.



Using the filter

Gently pour the dirty water into the filter. It will flow clean into the bucket underneath. Make sure beforehand that the water poured into the filter has been sufficiently decanted by sedimentation.

Maintaining the filter

Replace coal approximately every two weeks. Pollutants gradually contaminate the coal.

Gently pour the dirty water into the filter.



It will flow clean into the bucket underneath.

Be careful! You cannot always drink water that is clear.

Decanting:

An operation which consists of letting the water stand so that the most dense particles are concentrated at the bottom of the bucket while the least dense can be found on the surface.

Filtration :

Water passes through a membrane (a filter!) whose holes (very small, even microscopic) stop some particles (but not all!).
