7B

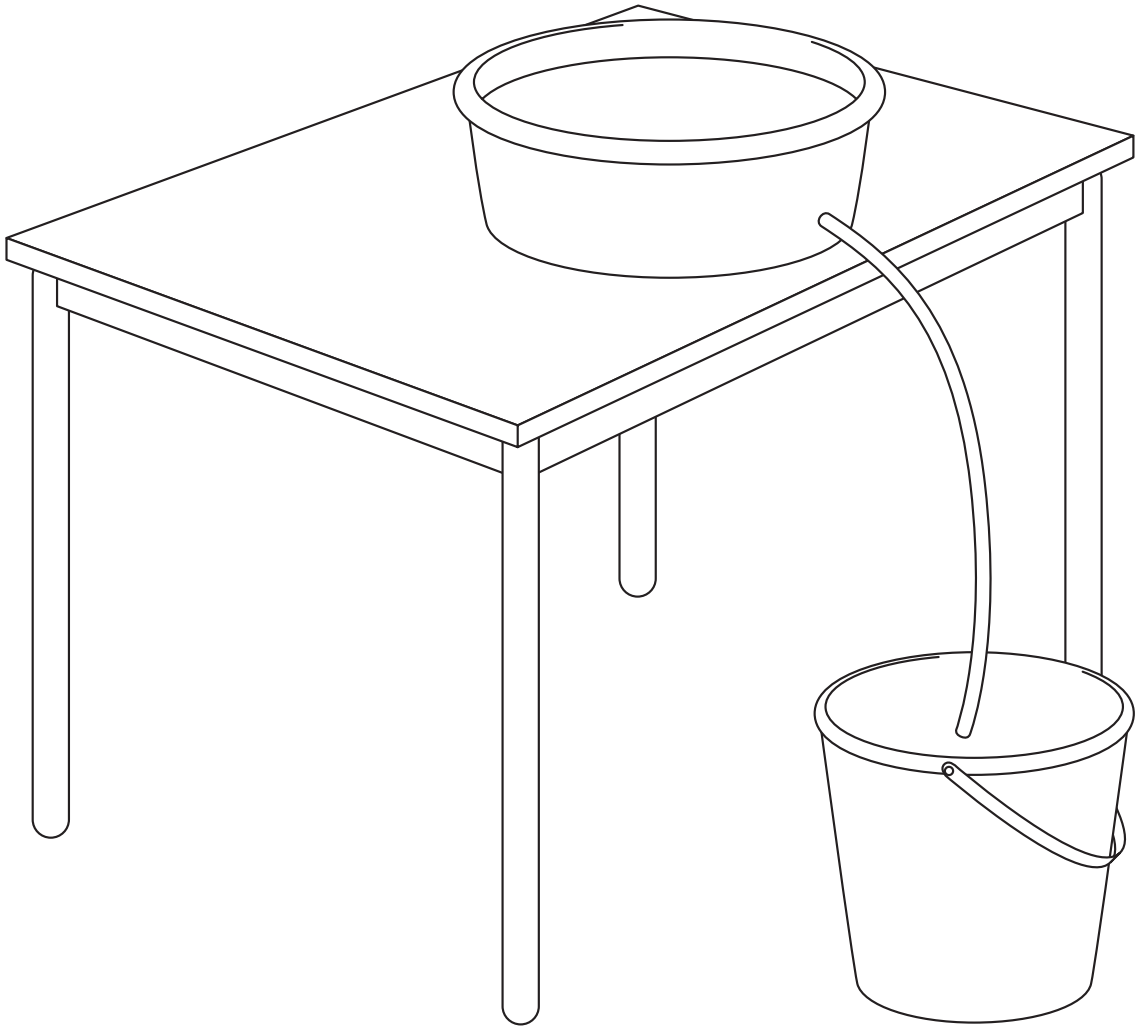
Name:..... Form:.....

See **pages 16 and 17** of *The Water Book*

Practical work: What reservoirs do

You will need a large bowl and some tubing for this practical.

You are going to try to make a reservoir using the bowl, and use the tubing to control the way water flows out.



1. Make a hole in the bowl and force the tube inside so that it makes a watertight fit in the hole.

2. Allow the tube to hang over the edge of a table and place a bucket underneath.

3. Add water to the bowl and watch the way the water flows out. You can put lots of water in the bowl and fill it to the brim, or just put water in from time to time.

Notes

A reservoir is a damping device. The outflow is controlled by the head of water in the reservoir (as we saw in practical 5B. But because the tubing is of a fixed diameter, if the amount of water entering is very large, the outflow will not be able to cope and the reservoir will spill over (as commonly happens in winter), which is why reservoirs have spillways (see page 17 Picture 2 of The Water Book).

If the water is added by the jug (representing intermittent rainfall) then it will be found that the outflow is much more even. So a reservoir (just like a lake) naturally steadies the flow of water in the river it is built on.

By putting a thumb over the outlet of the tube, it is easy to show how the flow can be stopped or reduced to allow the water to build up in the reservoir.

You might ask the children if they think the water is ever turned off to allow the reservoir to fill. This is never the case because so much depends on the river continually having a flow of water in it (for example, for fish, dilution of sewage).