

## **RAISE YOUR GLASSES TO GOOD SCIENCE TEACHING**

### ***Water Recycling for a Dry Continent***

Teachers are in a unique position to dispel some of the myths about drinking water and water recycling.

Australia is facing an uncertain future when it comes to our water supply. In towns like Goulburn in NSW, the city's main dam is officially empty. Schools across the country are reporting more students getting injured playing football on the school oval because the ground is rock hard, having not seen any rain for months.

Meanwhile, millions of litres of water are wasted each year as storm water, sewage and grey water is washed out to sea. To make matters worse, Australians are the third highest users of water after the United States and Canada. We live on the driest continent on earth. And we flush our toilets, wash our clothes and water our gardens with precious drinking water.

Slow progress is being made. In the Sydney suburb of Rouse Hill, new houses have been fitted with separate pipes to the laundry, toilet and garden that carry recycled water. But it would be very costly to retrofit existing houses with dual plumbing systems.

Is there any rational reason why we can't drink recycled water? State Governments have repeatedly said that recycling water is too costly because people won't drink it – and if we don't drink it, that means we would need a whole new plumbing system to deliver it to every house in different pipes to the drinking water. That would indeed be very costly.

But there is no scientific reason why we can't drink recycled water. We have the technical expertise to turn waste water into drinking water. Other countries such as Singapore already drink recycled effluent that's been treated to drinking standard. In fact, as any science teacher could tell you, all water is recycled.

Science teachers have the ability to teach the adults of tomorrow about water recycling. The water cycle demonstrates how water from the ocean and from other sources is evaporated by the sun and returned to our rivers – and our water supplies – through the rain.

Once we understand the science behind this process, it is absurd to think that people don't want to drink recycled water, because we already do. All of our water is naturally recycled.

With the onset of climate change, Australia's rainfall is expected to become more unpredictable. We need to be prepared to cope with longer periods without significant rainfall. Recycling is the obvious answer, but teachers can help dispel people's irrational opposition through teaching good science.

**Some useful websites with teaching tips on the water cycle:**

<http://www.expage.com/h2ocycle>

<http://www.teachingideas.co.uk/geography/watercycledemo.htm>

<http://www.proteacher.com/110056.shtml>

<http://ga.water.usgs.gov/edu/watercycle.html>

<http://www.sydneywater.com.au/EnsuringTheFuture/WaterSchool/index.cfm>

<http://www.abc.net.au/science/surfingscientist/teachstuff.htm>

<http://www.schools.net.au/edu/water/activities.html>

**Some useful websites for more information on water and environmental issues:**

<http://www.nccnsw.org.au/freshwater/index.php>

<http://www.irnsw.org.au/>

<http://www.envict.org.au/>

<http://www.ccsa.asn.au/>

<http://www.qccqld.org.au/>

<http://www.conservationwa.asn.au/>

<http://www.ecoaction.net.au/ccserac.php?sec=1>

<http://www.acfonline.org.au/>

<http://www.foe.org.au/>

<http://www.npansw.org.au/web/>

<http://www.greenplumbers.com.au/index.php?pageID=63>

[http://www.amonline.net.au/factsheets/waste\\_water\\_recycling.htm](http://www.amonline.net.au/factsheets/waste_water_recycling.htm)

<http://www.atse.org.au/index.php?sectionid=598>

<http://www.stopdesal.org.au/Home.aspx?element=1&category=1>

<http://www.groupk.org/index.htm>

[http://www.pub.gov.sg/NEWater\\_files/overview/index.html](http://www.pub.gov.sg/NEWater_files/overview/index.html)

[www.ozgreen.org.au](http://www.ozgreen.org.au)

<http://www.futureworld.org.au/>

<http://www.gould.edu.au/>

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