



## Water Savings – Lesson Plan

### Objectives

- To know that humans extract water from the rivers for their own use (both for farming, industry and the general public) and that when this is done during the summer, when rainfall is low, rivers, streams, ponds and lakes are in danger of drying up. This is a big problem in tourism areas as visitors stay mainly in the summer months. When a river dries up it takes about two years for animals to move back in and recover.
- To know that children can do their bit by saving water and that this not only helps the rivers and wildlife but also saves their parents money as they do not have to pay for wasted water.

### Schemes of Work relevance

Key stage 2 Geography Units

- 6: Investigating the local environment
- 8: Improving the environment
- 11: Water

### Teaching Activities

Use a set of reminders for each child and help them to calculate possible water savings at home using the ideas below. The figures below of £0.003 per litre are based on water metered at a cost of £0.00092 per litre (92p per cubic metre) plus sewerage charge of £0.00195 per litre (195p per cubic metre). It is estimated by the water companies that 95% of the water we use goes through the sewage system - discuss where the other 5% goes?

#### Shower instead of a bath

A full bath holds 150 litres, if you had a bath everyday you would use 54,750 litres per year ( $150 \times 365 = 54,750$ ). This means it costs you £164 per year ( $54,750 \times 0.003 = 164$ ). A 10-minute shower uses 60 litres, therefore you would use 21,900 litres per year ( $60 \times 365 = 21,900$ ) at a cost of £66 per year ( $21,900 \times 0.003 = 66$ ). This means it costs £98 less if you have showers ( $£164 - £66 = £98$ ). **How many people are there in your house and how much could you save per year?**

#### Leaving the tap on whilst you brush your teeth

If you leave the tap running you waste 30 litres of water (15 litres per minute), therefore 21900 litres per year ( $30 \times 2$  (day and night)  $\times 365 = 21,900$ ), therefore £66 per year. **How much would this save in your house?**

#### Washing machine

If you make sure you have full loads of washing you could save two loads each week. Using 150 litres a cycle you could be saving £16 per year ( $150 \times 52$  weeks  $\times 0.003 = 23$ ).

#### Using a HIPPO in the toilet

If you use a HIPPO - a bag that goes in your cistern, available from water companies (or plastic bottles filled with water will do just as well) - you save 3 litres per flush. This means that each person could save £9 per year ( $3 \times 4$  visits per day  $\times 365 \times 0.003 = 13$ ).



## Pembrokeshire Rivers Trust

### Water Savings Reminders

<p><b>Have a shower instead of a bath</b></p> <p>A full bath uses 150 litres of water</p> <p><b>You could save £98 per year</b></p>	<p><b>Don't leave the tap running while brushing your teeth</b></p> <p>Use a glass of water instead</p> <p><b>You could save £66 per year</b></p>
<p><b>Washing Machine</b></p> <p>Use full loads only</p> <p><b>You could save £23 per year</b></p>	<p><b>Flushing the Toilet</b></p> <p>Save 3 litres per flush by putting a HIPPO in your cistern</p> <p><b>You could save £13 per person per year</b></p>
<p><b>Washing your hands</b></p> <p>Don't let the tap run; use a plug</p> <p><b>You could save £22 per person per year</b></p>	<p><b>Do you use a garden sprinkler?</b></p> <p>Plan a garden that needs less water. Recycle bath water and use water butts to collect rainwater</p> <p><b>Save over £75 per year</b></p>
<p><b>Re-use bath water</b></p> <p>Not only can you save water by sharing bath water but you can also re-use it in the garden by fitting a joiner tap onto your down-pipe</p> <p><b>You could save £30 per person per year</b></p>	<p><b>Washing the car</b></p> <p>Using a bucket rather than a hose saves you 140 litres per wash</p> <p><b>You could save £22 per year</b></p>

You may photocopy materials for classroom use  
© Westcountry Rivers Trust 2005