Resources:

Aardema, Verna
Bringing the Rain to Kapiti Plain
Beatriz Vidal Picturemacs 1986
http://www.vidyaonline.org/arvindgupta/kipatcolour.pdf
A new version of a Kenyan folktale about the vital role played by water in the ecosystem.

Bang, Molly
Common Ground, the water, earth and air we share
Blue Sky Press (1997), ISBN 0590100564
A beautifully illustrated story which stimulates discussion about how our individual actions affect the world.

Graham, Ian
Energy Forever? Water Power
Hove: Wayland, 1998, ISBN 0750233540
An excellent overview of the potential of water to provide renewable, clean energy.

Graham-Yooll, Liz
One Muddy Puddle
Ragged Bears (1993), ISBN 9781857140170
An entertaining story about what the animals do when they use up all their scarce water supply.

Grant, Pamela and Haswell, Arthur
The Earth Strikes Back—Water
Children's Education (2004), ISBN 1841389439
Full of useful information about how water is used and how it could be used responsibly.

Green, Jen and Gordon, Mike
Why should I save water?
Hodder Wayland (2001), ISBN 9780764131578
An excellent introduction to the importance of saving water in everyday life.

Kerley, Barbara
A Cool Drink of Water
National Geographic Society (2006),
ISBN 9780792254898
Vivid photos provide plenty of discussion points about water use around the world

Lewin, Hugh
A Well in the Desert
Hamish Hamilton Juv (1989), ISBN 0241122136
A story about the digging of a well in a drought-struck village

Local campaign groups

End Water Poverty: www.endwaterpoverty.org
Friends of the Earth: www.foe.co.uk
People and Planet: www.peopleandplanet.org
UNICEF: www.unicef.org
Water Aid: www.wateraid.org/uk

We use: **http://tinyurl.com** for any oversized URL's.

Websites:

www.globaldimension.org.uk
Search ' water'. Case studies and teaching resources.

www.globalgang.org
Search 'water'. Topics, issues and stories.

BBC News: http://tinyurl.com/aswytg
Lots of information and discussion about the water crisis

BBC: http://tinyurl.com/aq22ue
BBC's "Water Week" Website.

http://tv.oneworld.net
A series of short videos on water and water related issues

Oxfam Education: http://tinyurl.com/c9lqfy
Classroom activities and case studies, slide shows for 9 – 13

www.un.org/millenniumgoals
Detailed information about background and progress towards the goals

www.un.org/waterforlifedecade
Site about the International Decade for Action Water for Life.

www.un.org/events/desertification/2007
Information on World Day for Desertification and Drought

Unicef: http://tinyurl.com/alk9ea
Well produced information and activities about human rights, water and sanitation

Wateraid: http://tinyurl.com/cpmllf
Useful resources for all key stages including games

www.worldoceannetwork.org information about World Ocean Day background and current activities

World Water Council: http://tinyurl.com/b93s6r
Excellent, detailed information about water issues

www.worldwaterday.org Site on world water day.

For more information contact:

HEC Global Learning Centre
Tower Hamlets PDC
English Street, London E3 4TA
T: 020 7364 6405
F: 020 7364 6422
E: hec@gn.apc.org

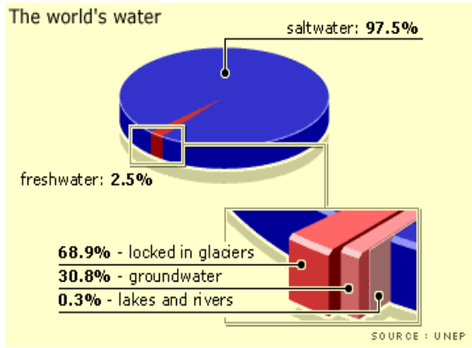
www.globalfootprints.org

promoting global learning in schools

Global Leaflet 11: Water

Water is a limited natural resource and a public good fundamental for life and health. The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realisation of other human rights.' UN Economic and Social Council, Nov 2002

Water is an essential and finite resource for life on earth and yet only a tiny fraction of the planet's water is usable as fresh, clean water. The world cannot increase its supply of fresh water: all it can do is change the way it uses it. Its population is going to go on increasing for some time before there is any prospect it will stabilise.



So what is your *Water Footprint?*
This is the amount of water you use, eg. drinking, cooking, washing, flushing the toilet, cleaning and leisure activities such as swimming. But your water footprint also includes the resources, land, space and energy involved in supplying this water.

People in rich countries use 10 times more water than those in poor ones. In Britain, the average person uses 160 litres of clean water each day; in rural Ethiopia, people use on average around five -10 litres a day per person. That means that the average person in the UK has a water footprint 16 to 32 times larger than the average person in rural Ethiopia!

- One child dies every eight seconds because of unclean water or poor sanitation
- At least one in every six people in the world does not have access to clean drinking water.
- An estimated one point six million lives could be saved annually by providing access to safe drinking water, sanitation and hygiene.
- Agriculture and farming is responsible for about 80% of all freshwater used.
- Households in rural Africa spend about a quarter of their working day collecting water
- Pakistan spends 47 times more cash on the military than on water and sanitation – it is not alone; many countries spend more on guns than on water taps.
- Just one flush of a toilet uses more water than most Africans have to use in a day

Global Context

Water: saviour and killer
Access to clean water and sanitation is one of the most important guarantees of good health. Dirty water can harbour serious illnesses and diseases. Close to half the population of the developing world is suffering from water-related diseases. Children are especially at risk as their bodies are less developed than adults', and less able to resist illness. Many children miss school because of illnesses caused by problems with water and sanitation.

A disastrous footprint
Too much or too little water is responsible for the vast majority of natural disasters. In the last 10 years or so, 90% of natural disasters were due to water-related events, and they are on the increase. Two out of every five people now live in areas vulnerable to floods and rising sea-levels. Flooding increases health risks by contaminating drinking water and destroying sanitation systems. People can lose everything in floods – their homes, their food, their livelihood. Droughts are also a severe threat to health as they often worsen malnutrition and famine.

The poor walk, but the rich leave their footprint
Poor people often walk many miles each day to collect water whereas we use energy to get our water. Women and children, particularly girls, may spend hours every day collecting. This means women don't have the time to do paid work and children can't go to school. Without safe water and basic sanitation people simply cannot escape poverty.

Article 24 of the UN Convention on the Rights of the Child states that: "You have the right to good quality health care and to **clean water**, nutritious food and a clean environment so that you can stay healthy."

Millennium Development Goals
Goal seven — to ensure environmental sustainability
Target — to reduce by half those without decent drinking water and those without sanitation by 2015.

Providing access to water and sanitation is also fundamental for achieving the other Millennium Development Goals, such as alleviating poverty, hunger and malnutrition; reducing child mortality; increasing gender equality and providing more opportunity for education.

Events

March 22	World Water Day
June 8	World Ocean Day
June 17	World Day to Combat Desertification and Drought
2005-2015	International Decade for Action, Water for Life

Case Study: Clean water at school

Until recently, Lakshmi and her classmates had to walk a long way from their school compound, in the Medak district of Andhra Pradesh, central India, to find some privacy behind a thicket of bushes. On one occasion, a snake moving near her in the bushes frightened Lakshmi so much that she told her mother she would never go to school again. But now all that has changed. "My school has toilets now," says Lakshmi, "and we no longer need to leave the compound to relieve ourselves." As a result, she says, children do not miss school so much.

Providing clean drinking water was equally important, as Rajasekhar, a student from another school in the district, explains. "The water used to have a bad taste and we often clutched our stomachs in pain. None of this happens anymore." All the schoolchildren in the district are taught good hygiene practices and are directly involved in keeping their environment clean. And summer camps help the students remember what they have learned – and also pass on their knowledge to others. "Attending the camp at a new school was such fun," says Manasa, another local student. "I learnt so much. I want to introduce good hygiene and sanitation practices in my school too."
http://tinyurl.com/cvra4w

Case Study: Water purification

Miriama is 8 years old and lives in southern Ethiopia with her three brothers and her parents who are farmers. Miriama's mother Amane explained,
"The drought ended and the rain poured down, but was unable to soak into the sun-baked ground. Rain water swept down the hill, taking the animal dung from the fields with it, into our pond. The water that we rely on for drinking and cooking became polluted…..people became ill and some people died.

Six of our cattle also died from drinking this polluted water. We now only have one cow, one calf and some goats. Our bull became too weak to plough our fields and so the harvest was small. In previous hard times we have sold our cattle to buy food. But this year we have no cattle left to sell...

Thankfully our water is now safe to drink. Two months ago UNICEF gave the village a temporary system to clean the water. The water is pumped from the pond, filtered and stored in a large bladder. This clean water goes to taps for all of us to use. People and animals are no longer getting sick from the water they drink. UNICEF is constructing a borehole and water pump in our village and so we will soon have a permanent fresh water source to use."
http://tinyurl.com/atvt4d

Case Study: Local action in Rajastan

In 1984 Dr Rajendra Singh, now 49, was working in the semi-desert Indian state of Rajastan. He planned to set up health clinics in the rural villages, but was shocked when he went to a place called Gopalpura. "This area was devastated and people were fleeing, leaving their children, women and older people behind," Singh says. "It was then an old man told me that they needed neither medicines nor food. He said all they needed was water.

"It moved me so much and I started finding out ways to help. But the region was arid, all the rivers were dry and the land was parched. The only source of water was rainwater, but that was scarce and there was not nearly enough for all the needs of the region."

A mix of modern technology and villagers simply neglecting traditional ways of conserving water had led to an ecological disaster. Singh found that the villages no longer used small earth dams - or johads - to collect surface water but instead now relied on "modern" tube wells. As they bored their wells deeper and deeper into the ground and sucked out ever more underground water, so the water table had dropped alarmingly and ever deeper wells were required.

Lower water levels meant that the wells were not full, the forests and trees were dying off, and erosion was worsening. It was a vicious circle. With less irrigation water, farming declined and men migrated to cities for work. Women and children then had to spend up to 10 hours a day fetching firewood and water, and the shrinking labour force sapped people's will to maintain the old johads. The whole region faced disaster.

Singh and his colleagues began digging out an old johad pond in Gopalpura. Seven months later, it was, almost miraculously, nearly five feet full of water. And once the rains eventually came, not only did it fill to the brim, but a nearby long-dry well began flowing again. The following year, the village joined in to rebuild a second dam, and by 1996 Gopalpurans had recreated nine johads that between them held millions of litres of water. Meanwhile, the groundwater level had risen to 6.7m, up from an average of 14m below the ground. The village wells were full again.
"It was only due to political reasons that the [johad] system fell apart," Singh says. "We worked for four years in Gopalpura and slowly a huge area turned green. People came back, they started farming again and the visual impact was so impressive that people from adjoining areas started calling us for help."

Singh is now known as the Rain Man of Rajastan, having brought water back to more than 1,000 villages and got water to flow again in all five major rivers in Rajastan. He has so far helped to build more than 8,600 johads and other structures to collect water for the dry seasons. The forest cover has increased by a third because the water table has risen, and antelope and leopard have returned to the region. It has also been one of the cheapest regenerations of a region ever known - in Rajastan, villages have been brought back to life sometimes for just a few hundred pounds, far less than the cost of the single borehole that almost destroyed them.

http://tinyurl.com/3a2lbk

Ideas For Action

Find out your *water footprint:* The average person in the UK uses 80 litres of water a day

Amounts of water used for different daily activities
- Taking a shower - 18 litres
- Filling a sink/bowl to wash dishes - five litres
- Filling a bath - 50 litres
- The washing machine uses - 95 litres
- Filling the kettle - one litre
- Daily drinking per person - one litre
- Water for cooking - one and a half litres
- Flushing the toilet - nine and a half litres

Why not try to measure how many litres of water you use every day?
In many countries in the world people are only able to use 10 litres of water a day.
Imagine that today you only have 10 litres of water
Think about the daily activities listed above and consider these questions:
- How much water would you use for each task?
- Which are the most important uses of water?
- Which activities could you still do but with less water?
- Could you use some water for more than one activity?
- Which activities could you not do at all?

Make a colour coded chart to show the results.

Children take action
A special Children's World Water Forum was held in Mexico City in March 2006. One hundred and seven young people from 29 countries across the world met government ministers to discuss how children can help solve the world's water problems. The young people called for action from governments to fulfil the human right to safe drinking water supplies and basic sanitation. They called for facilities in all schools and communities, taking special notice of the needs of girls, very young children and children with disabilities. The young people had much more to say! For the full text from the Children's World Water Forum see:
http://tinyurl.com/cb73xj

Why not have a go at writing your own water manifesto? Use the information and links provided in this section to help you. When discussed and finalised, you could send it to a government minister and ask for his/her response!

Campaign for water for all
As aware and active global citizens we can work to persuade governments of the importance and urgency of helping to deliver clean water and sanitation to everyone in the world. See next page for a list of groups.

A Short History of Water Works
(from **http://tinyurl.com/asgzcx**)

400BC Hippocrates emphasises the importance of water quality to health and recommends boiling and straining before consumption.

200BC A Sanskrit manuscript observes "it is good to keep water in copper vessels and filter it through charcoal."

1804 First municipal water filtration works in Paisley, Scotland.

1877-1882 Pasteur develops theory that disease spread by germs.

1890s Chlorine proved an effective disinfectant for drinking water.

1945 First community fluoridation campaign in Grand Rapids, Michigan.

Things you can do at home
- Turn off the tap while you clean your teeth
- Install a water hippo in the lavatory cistern to reduce the amount of water in each flush (Free waterhippos available from HEC—just get in touch with us.)
- Take a shower instead of a bath
- If you have a bath don't fill it more than halfway
- Fill up the dish washer and washing machine before use
- Reuse water from cleaning vegetables, salad and fruit to water your plants
- If you have a garden get a water butt to collect rainwater
- If you are going to wash the car use a bucket of water not a hose
- Drink tap water –don't buy bottled water if you know your tap water is safe. Transporting water from its source to the supermarket shelves is an expensive waste of energy. And the plastic bottles add to the already-high mountains of rubbish that we produce.

So you can save water and also money (which will make the adults happy)

Organise a school World Water Day
- Organise whole school displays on water
- Get hold of resources from NGOs like WaterAid, UNICEF, People and Planet
- Make Powerpoint displays from websites or from students' own researches
- Use the exciting lessons from OXFAM Cool Planet Water section
- Investigate how your school can save money by cutting its water consumption—for advice and case studies visit www.waterintheschool.co.uk
- Look at **www.belu.org** to find out about bottled water in non-plastic, compostable bottles. All the profits from this company go to water-related charities
- Hold a school assembly. You can find some ideas at **http://tinyurl.com/dzzbdb**