

Water

“All the water that will ever be is right now.”

National Geographic

The DfE's [Sustainability and Climate Change Strategy](#), a strategy for the education and children's services systems, tasks the education sector with reducing its environmental footprint, particularly in the drive to achieve net zero.

The third strategic aim is to create: “Resilience to climate change: adapting our education and care buildings and system to prepare for the effects of climate change.”

Action area 3: Education estate aims to provide “A green, sustainable education estate that is resilient to the impacts of climate change will normalise and inspire young people to live sustainable lives, with impact felt widely in their families and communities.”

Saving water now will secure water for future generations. Waterwise states that with “population growth, rising water use and climate change will increasingly affect future water resources in the UK. If water efficiency action is not increased, the UK could be hit by water shortages by 2050.”

Saving water can also save energy, water needs energy to heat it, treat it and pump it. It will also save money and promote sustainable behaviour in school and in the wider community.

Saving water can also help to reduce the impact of water resources removed from rivers and aquifers and protect them from the impact of wastewater pollution.

We have created some ideas to help reduce water waste in your school, saving money and having a positive impact on climate change.

A water audit will establish how you are using water in your school and identify target areas for improved water efficiency.

Getting your students involved in this process will be the most exciting and rewarding part. It could also help you to demonstrate progress against the [Eco Schools](#) accreditation process.

School water audit part 1

School name:					
Date:					
Supplier	Annual cost	Consumption M ³	Contract end date	Notes	
Water					
Sewerage					

School water audit part 2		
School Name:		
Date:		
Kitchen	Yes/No	Comments/specify numbers where appropriate
Do you have your own catering kitchen?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
How many devices draw on water in your catering kitchen? (don't include taps here)		
Taps	Yes/No	Comments/specify numbers where appropriate
How many push taps? (non concussive)		
How many turn taps?		
How many movement sensor taps?		
How many leaky taps?		
How many broken / unusable taps?		
How many outside taps?		
Are they insulated against frost damage?		
Flushing systems	Yes/No	Comments/specify numbers where appropriate
How many urinals?		
Are they on a programme flushing system?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
How many toilets?		
Do they have small flush / big flush options?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Showers	Yes/No	Comments/specify numbers where appropriate
How many showers?		
Water fountains	Yes/No	Comments/specify numbers where appropriate
How many showers?		
Water coolers	Yes/No	Comments/specify numbers where appropriate
How many water coolers?		
Other	Yes/No	Comments/specify numbers where appropriate
Do you have water butts? How many?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Do you have a permanent swimming pool? How big is it?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Do you have a dishwasher? How many?	<input type="checkbox"/> Yes	

	<input type="checkbox"/> No		
Do you have a washing machine? How many?	<input type="checkbox"/> Yes		
	<input type="checkbox"/> No		

Some water companies and suppliers may offer free or subsidised water audits and advice. A waterwise study found that “up to 3.13m³ of water per day can be saved on average per school.”

<https://www.waterwise.org.uk/save-water/>

Benchmark based on M³ per pupil

	Primary School (with Pool)	Primary School (no Pool)	Secondary School (with Pool)	Secondary School (no Pool)
Low User	3.1	2.7	3.6	2.7
Typical User	4.3	3.8	5.1	3.9
High User	6.1	5.6	7.5	5.8

You can work your M³ per pupil using this calculation:

M³ per pupil = Annual usage in cubic metres / number of pupils

It might mean more to your pupils and easier to track a reduction in consumption, if you calculate the daily water use:

Annual usage in cubic metres x 1000 litres / days spent in school / divide by number of students and staff in school.

The water retailers regulator MOSL provides a schools water [benchmarking tool](#), with data at a school level available from your water retailer.

Now what?

Dripping taps can waste up to 60 litres of water per week. If you have a dripping hot tap, you will be paying three times! For the water supply, the sewerage and for the energy to heat it. Involve pupils in spotting leaky taps and report them to site staff for fixing. Consider replacing taps with push-down taps.

Watersafe have found that “A toilet leaking clean water from the cistern to the pan can waste up to 400 litres of water a day (that’s five full bath tubs) and add around £300 a year to metered water bills if left unfixed.”

- Ask your site staff to place a piece of toilet paper in the back of the toilet bowl overnight.
- Half an hour after a flush, wipe the back of the pan dry with toilet tissue.
- Then place a new, dry sheet of toilet tissue across the back of the pan.
- Leave it in place for up to three hours without using the toilet, or overnight.
- If the paper is wet or torn in the morning – you have a leaky loo.

Contact your water company who may be able to help with replacing leaky loos and drippy taps.

Leaky pipes can lead to major issues with water loss, flooding and high water bills. Monitoring monthly meter readings over time can help to spot leaks as soon as possible. Water companies and suppliers offer leak detection services which usually have a cost attached but may save money in the longer term.

Not every water leak can be picked up from monitoring water meter readings - one school reported that one side of their sports hall corridor started developing mould for metres and metres. Eventually they discovered that a water inlet pipe to a cistern behind panelling in the toilets had a leak and was spraying the thinnest amount of water continuously for probably for months due to the amount of damage it caused.

Water saving devices can significantly reduce the amount of water consumed.

Flow saver devices can save up to 70% of water used in an uncontrolled urinal cistern depending on usage. Your hygiene service supplier will be able to audit your current urinals and offer water saving solutions. The flow rates from your taps, which in toilets and public areas only need to flow at around 4-6 litres per minute for hand washing and 15-18 litres per minute for kitchen sinks. This can be reduced using the isolation valves (if fitted) in the short term and in the longer term by installing flow reduction valves on supplies to individual taps and permanently reducing the flows to between 4 and 6 litres per minute.

Can you install water butts to help with your gardening and biodiversity areas? Or even install a water harvesting system which can be used for toilet flushing?

If you've got showers can they be put on timers? and do your showers already have water reduction devices on the shower heads?

Install plugs and washing up bowls for all the sinks in staff rooms, classrooms and art rooms. Encourage art staff and students to rinse brushes in containers rather than under a running tap.

Are your urinals set on more than the minimum frequency to remain hygienic? (install a valve to the inlet pipework of the urinal system or passive infrared sensor installed in the room)

Water awareness – Most water companies have education outreach programmes who may offer workshops, assemblies and water efficiency upgrades.

You can find the educational resources offered by your local water company on the Wateraid Website. <https://www.wateraid.org/uk/get-involved/teaching/water-company-resources>

What else can you do?

Use mulch around plants and trees to reduce evaporation and weeds and preserve existing plants for shade and moisture retention to reduce the need for irrigation. Plant trees, drought-resistant plants and shrubs.

Could you install sustainable drainage solutions to slow down or prevent surface water being channelled to the sewage system?

Are your hot and cold water pipes insulated?

Do you have water fountains for students and staff to refill their water bottles?

Why not take part in water saving week?

<https://www.waterwise.org.uk/wsw/>

Why not take part in Water night? Encourage your families to turn off non-essential taps between 5.00 p.m. and 10.00 p.m. to help them understand the value of water and how they can play their part in conserving water for future generations.

<https://www.waterwise.org.uk/waternightuk/>

Further support and resources:

<https://www.eco-schools.org.uk/ten-topics/water/>

<https://www.wateraid.org/uk/get-involved/teaching/water-company-resources>

<https://www.wateraid.org/uk/get-involved/teaching-resources/films-and-songs>

<https://buyingforschools.blog.gov.uk/2023/12/04/sustainable-drainage-systems-for-schools-environmentally-friendly-flood-prevention/>

<https://www.groundwork.org.uk/services/water-conservation/>

<https://www.waterexplorer.org/download-resources#english>