



# How to save water at home

It's very easy to save water at home by making a few small changes in your habits. Simply by not leaving the tap running continuously while brushing teeth or shaving, a community can significantly reduce its water consumption. If you are sceptical about this claim, try completing the following assignments.



## Assignment 1



### How do you brush your teeth?

The population of your town is 100,000, and everyone brushes their teeth twice a day. Let's suppose that most people brush their teeth while leaving the tap running, and fewer people turn the tap on only to rinse their mouths and toothbrushes. The flow rate of water is 2 litres per minute, and on average it takes three minutes for most people to brush their teeth. The second approach (turning the water on only for rinsing) uses half the amount (approximately 1 litre) of water.

1

**How much water would be used per year if everyone in the town ran the water continuously while brushing their teeth twice a day?**

2

**How much water would be used per year if everyone ran the water only to rinse their mouths and toothbrushes?**

3

**How much water would be saved per year if everyone followed the second approach?**

ANSWERS: 1: 438 mln litres/438,000 m<sup>3</sup> 2: 73 mln litres/73,000 m<sup>3</sup> 3: 365 mln litres/365,000 m<sup>3</sup>



## Assignment 2



### How do you shave?

Let's suppose that the population of your town is 160,000. Assume that half are men, and half of the men shave every morning. Most of those who shave do so while running the tap continuously, while others turn the tap on only to rinse their faces and razors.

An average shave takes about 6 minutes. Tap water flows through a semi-open faucet at about 2 litres per minute. The average amount of water used for rinsing only is 1 litre.

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**1** How much water is used annually if, every morning, all shavers run the tap continuously while shaving?

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**2** How much water is used if these same shavers run the water only for rinsing?

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**3** How much water would be saved every year if all shavers followed the second approach?

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ANSWERS: 1: 175.2 mln litres/175,200 m<sup>3</sup> 2: 14.6 mln litres/14,600 m<sup>3</sup> 3: 160.6 mln litres/160,600 m<sup>3</sup>



# How to protect water from contamination

There is no washing or cleaning detergent yet in existence that is completely harmless to the environment. All such chemicals contribute to pollution to varying degrees, and this is why the best we can do is to use them in a reasonable and appropriate way and, preferably, to buy products labelled as being safer and containing environmentally friendly substances.

Another option is to put some rather forgotten cleaning tips more frequently into use:



## Dishwashing liquids and powders

Dishwashing products sold nowadays are toxic and corrosive. Vinegar, water or dissolved baking soda can be used instead.



## Window cleaners

Commercial window-cleaning products are also toxic and corrosive. Common household items such as warm water and vinegar (an 11:1 ratio) are safer alternatives.



## Drain cleaners

These products usually contain strong alkalis and corrosive and toxic elements that may also cause burning. Instead, you can use a pump or wire to unclog a drain. For regular cleaning use quarter of a glass of vinegar and quarter of a glass of baking soda, then rinse afterwards with hot water.



## Bleaching solutions

These are corrosive and toxic. Instead, you could substitute half a glass of vinegar or baking soda.



## Oven-cleaning gels and powders

These generally contain strong alkalis and are toxic and corrosive. Avoid them by cleaning the oven at regular intervals with baking soda.