



## Water

Where does our water come from? The water that flows out when you turn on the tap comes from local water boards, which have the task of collecting water and 'purifying' it for drinking, cooking, cleaning, gardening, manufacturing and toilet-flushing.

**70% of the Earth's surface is water but almost all of it is salty sea water, which we can't drink. So although it seems like there's plenty of water to go round, very little of the planet's water supply is available for everyday use.**

**You may think that getting water is as easy as turning on the tap - and whoosh, out it comes - but you'd be wrong!**

### What's The Process?

Water is channelled via underground pipes to water purification centres. There, complicated processes are used to make sure it's clean. The water is pumped to storage facilities and then to local authorities, mines and factories (again via the underground system of pipes). These authorities supply homes, schools and businesses with clean water.

Sewerage – dirty toilet and bath water – is also purified, thank goodness. When you flush your toilet, the contents are sent to purifying plants which remove all solid objects, cleanse the water and pump it back into the dams, rivers and reservoirs it came from. Disgusting, right? Wrong. The processes used are so advanced and so sophisticated that the water you get is 100% clean and safe to drink. Amazing!

### Clean Water Is A Constitutional Right, But...

It isn't free to the public. It has to be transported thousands of kilometres. It has to be made clean and safe to drink. And it's a scarce natural resource in water-stressed South Africa.

**So one of the best things in life isn't free after all! But it's dirt cheap (with the dirt removed, of course!) and costs about R3.54 for 1 000 litres**

## Electricity

### What's The Process?

Electricity is generated by Eskom at 22 plants nationwide. It's then transported to substations, via overhead power lines or expensive underground cables. From substations, the electricity moves over a huge grid to homes and businesses. Because it travels so fast, it's available at the touch of a button. And we have to pay for it. After all, it travels faster than Superman on a Red Bull!

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## Electricity Is A Privilege

South Africa is one of the 4 cheapest electricity producers worldwide. But if you don't pay your monthly bills, your electricity will be cut off. This means no bedroom light before a hectic exam, no hot bathwater before a hot date, no coffee in the morning... you get the idea! Plus you'll have to pay a reconnection fee as a penalty, which is hardly worth it if you'd just paid your bill in the first place.

**Just as we turn on the tap to get instant water, so too do we expect electricity at the flick of a switch. Electricity is used for cooking, heating and manufacturing but without it, there'd be no TV games, no Internet, no radio. Let's face it, without electricity there'd be nothing to do on weekends but watch mosquitoes eat you alive!**

Some people steal electricity from other people, which is not only dangerous but illegal. If you tap into a neighbour's electricity supply and leech off it for your own purposes, you could end up in jail. Worse still, it's extremely dangerous to overload supply units and you could end up starting a fire and burning down your house!

**Speaking of illegal, never steal power lines or cables! Again, you could wind up in jail or electrocute yourself. Those cables carry voltages much higher than that of the lowly plug socket in your home. And think about this – the cost of replacing those cables runs into millions of Rands; money which ultimately comes out of taxpayers' pockets – and that means you!**

## More Safety Tips...

- Switch a switch off at the wall socket, before pulling a plug out.
- Never touch electrical wiring that is broken or exposed.
- Never use electrical equipment while standing in water or when you're wet. Water + Electricity = Fire!
- Never use water to put out an electrical fire. Use a dry chemical fire extinguisher instead.
- Don't use a fork, knife or anything made of metal to remove toast from a toaster when it's plugged in.
- If you see sparks or smoke coming from an electrical appliance, something is wrong. Unplug the appliance and call an electrician.
- Don't touch electrical power lines. Don't even go near them! All power lines are very dangerous.
- Never climb onto electric pylons.

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## Tips for Saving Water and Electricity

- Reduce your daily water usage and look for ways to save water. Have a bath instead of a shower, or wash your car with buckets of water instead of a hose.
- Switch off the tap when brushing your teeth. Don't waste water by leaving it running.
- Repair leaking pipes, taps and toilet cisterns. A dripping tap can waste up to 60 litres of water a day!
- Don't use a dishwasher or washing machine unless they're fully loaded.
- Geysers are usually set at very high temperatures. Turn down the thermostat (to 65 degrees). But be careful when doing so!

### NOTE

**If you use paraffin appliances instead of (or as well as) electricity, you must be particularly careful. Paraffin is very dangerous and should always be handled with extreme care. So:**

- Never leave a paraffin appliance unattended.
- Always put a paraffin appliance on a firm, flat surface (never on top of a cloth!)
- Always keep a bucket of sand nearby
  - never use water to put out a paraffin fire!
- Always store paraffin out of reach of children
  - it's poisonous!
- Make sure there's enough fresh air so that children don't breathe in dangerous paraffin fumes.

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