

## Water for Health and Wellbeing

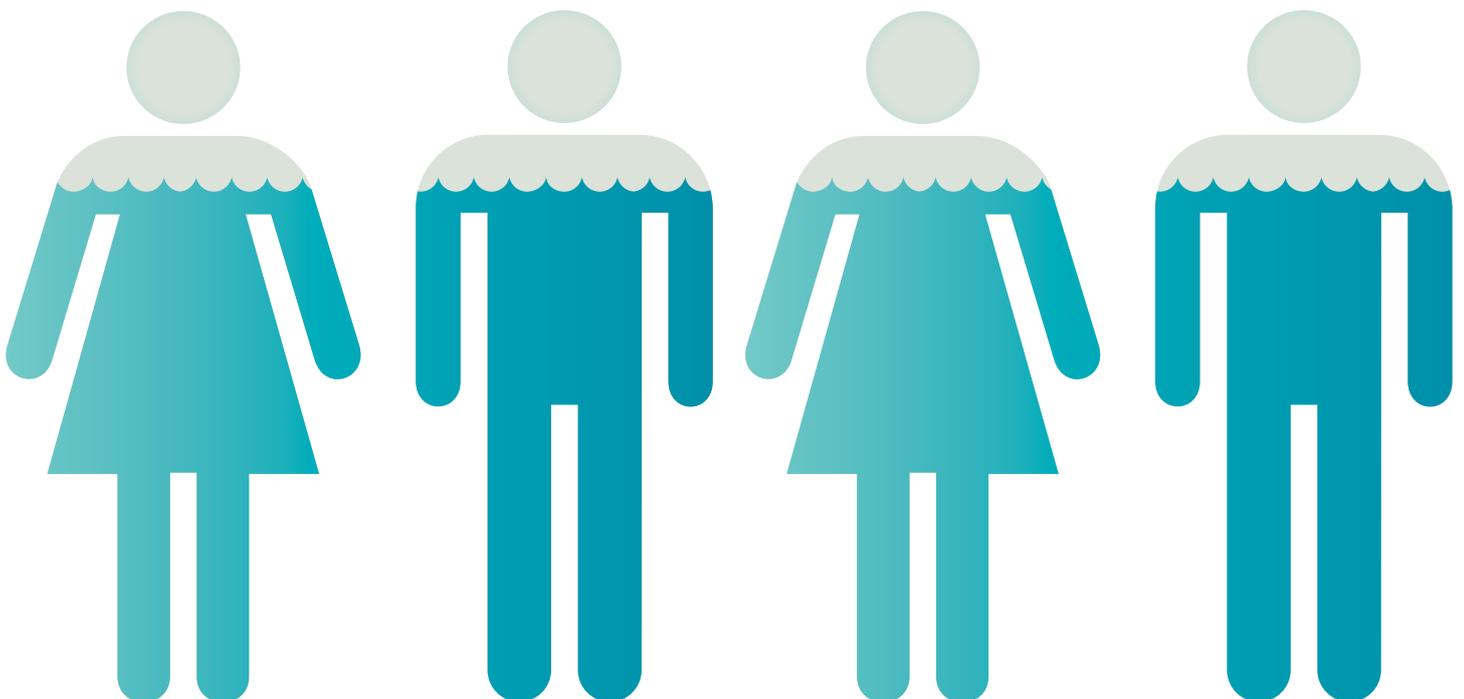
Both plants and animals need water to survive—that includes us! Water is essential for the human body, which is composed of around 70% water. The body can't store water for very long and needs fresh supplies every day to function properly and stay healthy. Although human bodies can last weeks without food, they can survive only days without water.

Water forms the basis of blood, digestive juices, urine and perspiration, and is contained in lean muscle, fat and bones. It helps the body digest food, maintain a constant body temperature, protect the body's organs, transport nutrients, flush out toxins and works as a moisturiser to improve the skin's texture and appearance. The average adult loses around two litres of water from their body per day by simply going through their normal routine. This water needs to be replaced for a human body to function properly. Experts recommend drinking around eight glasses (or two litres) of water per day, and even more if it's hot or you've been exercising.

There is a flip side to drinking not enough water, and that's drinking too much water too quickly. This condition is called water intoxication and occurs when too much water is consumed at one time, which dilutes the

body's sodium to a dangerously low level. Sodium helps the body maintain blood pressure, as well as allowing nerves and cells to function properly. While the adult body can handle around 15 litres of water per day, it needs to be taken in gradually over time. Unless you are a marathon runner or an infant, it is unlikely you will ever come across this condition...but it's best to be aware.

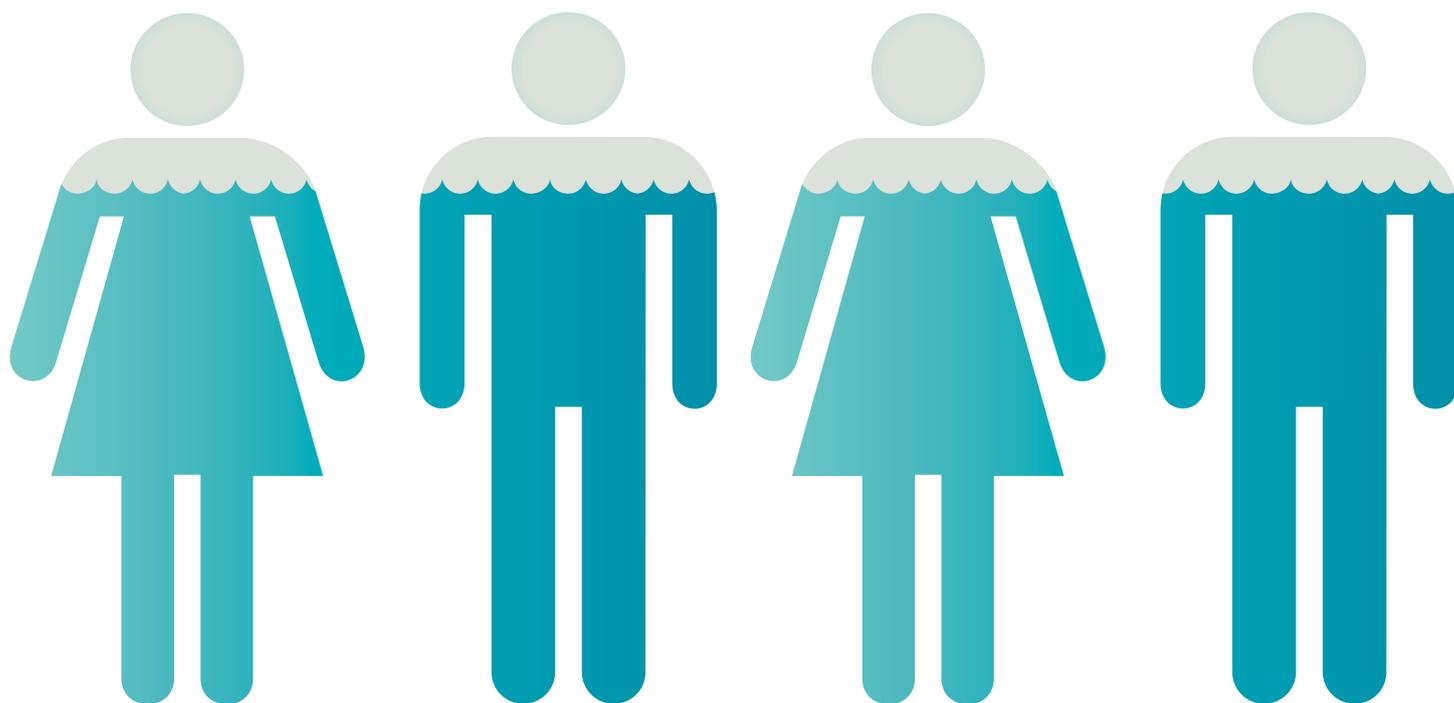
Access to water in Melbourne is easy! Water is delivered to homes and businesses across Melbourne via pipes, plumbing and taps. This easy access to a clean supply of water means Melburnians can maintain a good level of hydration and health. But spare a thought for the one billion people in the rest of the world who live without access to clean drinking water and appropriate sanitation. Some people in developing countries spend several hours every day simply finding and transporting limited quantities of water that is often quite dirty. This can lead to many health, social and economic issues. Access to clean drinking water can not only stop the spread of disease, but allows people more time to do other things, like growing food, building houses and staying in school. This is important for the development and progress of a healthy and productive community.



Along with Victorians' access to clean water, a temperate climate and access to a rich and diverse natural surrounding are other benefits (and privileges) of living in this country. The ability to engage with nature plays a vital role in health, wellbeing and development. We now know that trees, plants and green spaces are more than just beautiful places to visit. Research shows that humans are, amongst other things, dependent on nature for psychological, emotional and spiritual needs that are difficult to satisfy with anything else. If water is available, gardens and green spaces can offer great health benefits to local communities.

Urban heat islands are built up urban areas that have a higher temperature than the rural areas surrounding it. There are several contributing factors to urban heat islands, including surface thermal conductivity and heat capacity of building materials. It is possible to reduce the urban heat island effect by planting rooftop and vertical gardens. These gardens assist to absorb and reflect some of the heat and thus keep the area cooler than it would otherwise be.

Different plants serve different purposes in different areas. A big gum tree might provide a home for animals or shade for humans, while a parsley plant can be used to cook a delicious meal. Some plants need lots of water, while others don't need much at all. By selecting the right plants, fruits and vegetables for the area in which you live, you can have all the benefits of a garden or vegie patch nearby without wasting any water at all (and saving some money too!).



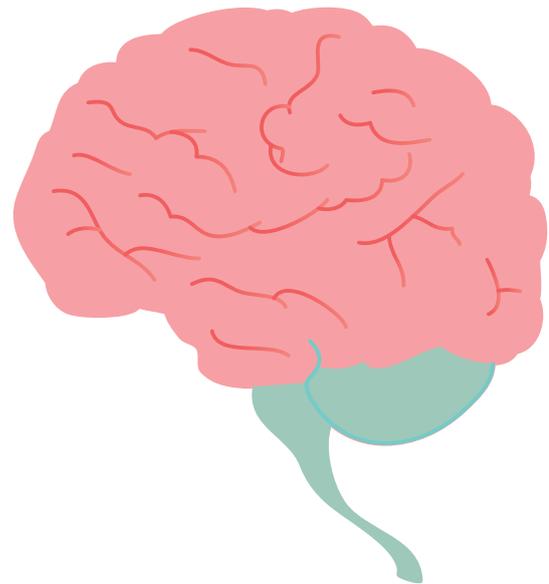
# Health and Hydration

Did you know that the human body is made up of around 70% water and the brain is made up of 80% water? It's hardly surprising, then, that we need plenty of water to stay hydrated throughout each day. Water helps the body digest food, maintain a constant body temperature, protect the body's organs, transport nutrients, flush out toxins and keep you looking and feeling well.

## Main Activity

Review the **Main – Health and Hydration worksheet**. Are there any surprises? Do you think you drink enough water to help your body function properly? Think about the water you've had today, and then complete the second part of your **Main Activity** worksheet.

**FACT:** Light-headedness, dizziness, headaches and dark coloured wee are signs that you are not getting enough water.



### ▶ Engage

Use the **Engage – Health and Hydration worksheet**. Surround this picture of yourself with activities you do and items you use to keep yourself healthy and hydrated. You can draw images yourself, print them from the internet or cut them from magazines. You should also add any words that are suitable.

### ▶ Connect

Use the **Compare and Contrast template** provided to compare the human body with research you do on another beast in the animal kingdom. Create a presentation or infographic that reviews both beings, and their need for water. Include information that explains how each being takes water into their body, and how it might be removed.

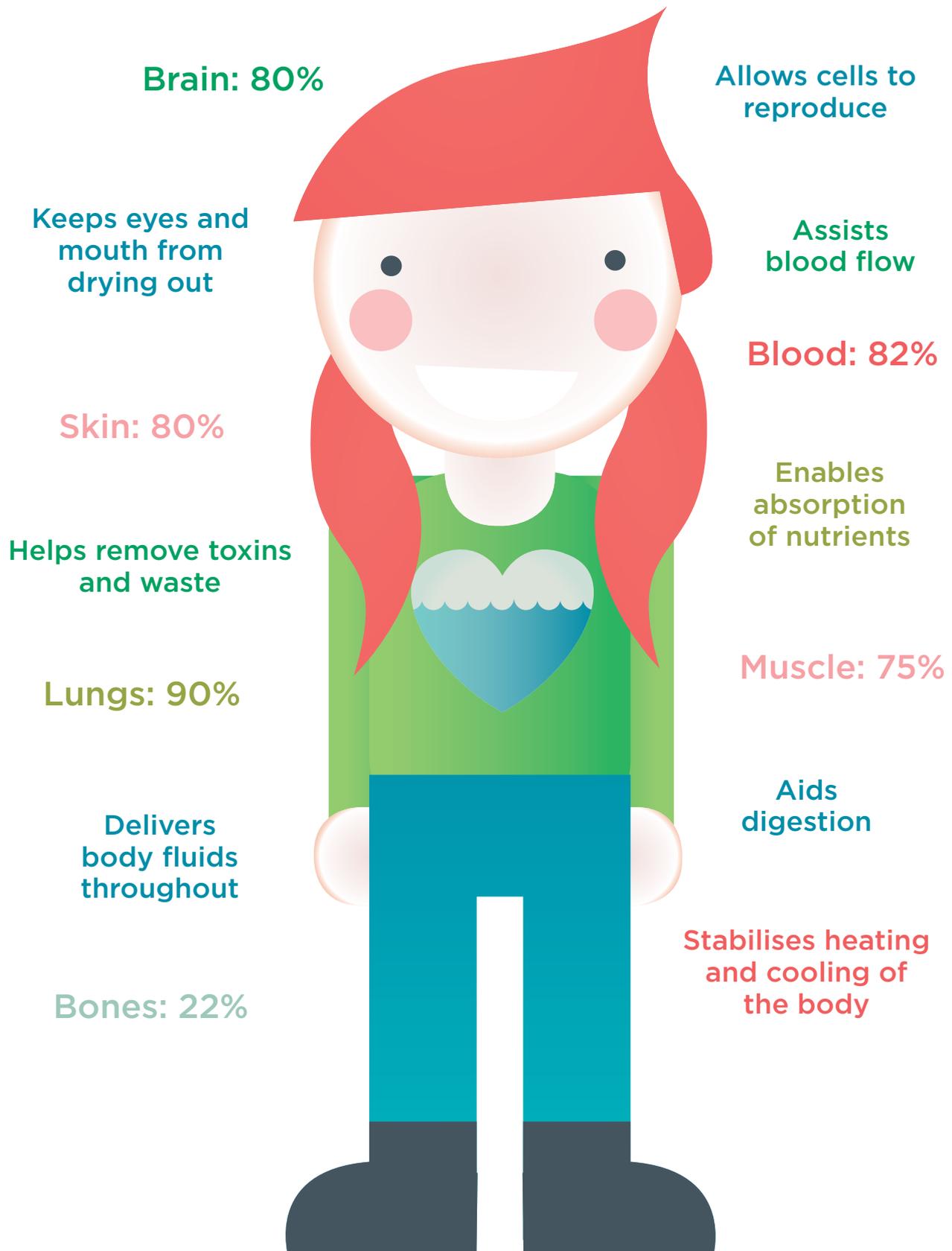
### ▶ Explore

Create signs to be placed above the drink taps at your school to promote the health benefits of staying hydrated. You might like to include facts about the signs of dehydration, the amount of water in different parts of the body, or what you should do to stay hydrated.

# Main – Health and Hydration

## Facts and Figures about Water in your Body

The average human body is composed of around 70% water. All parts of the body contain some water. Here are some of the most 'watery' parts and some of the ways water helps to keep us alive.



# Main - Health and Hydration cont...

Using the table below, write down the number of drinks you have had today in each of the columns.

A quick sip at the bubblers	A long slurp at the bubblers	Half of my drink bottle	All of my drink bottle	I've been drinking water ALL DAY!

Have you had more or less water than you thought?

Do you think this is enough water to keep you hydrated?

Using the table below, write down the reasons you like to drink water and don't like to drink water.

I like to drink water because...	I don't like to drink water because...

Share your answers with a friend. Do you have similar reasons?

Write a list of things that might make you want to drink more water. Are any of these ideas possible?

Share your best idea with the class and see if you can implement a new system that encourages everyone to stay hydrated throughout the day.

# Engage – Health and Hydration

Complete this picture of yourself, then surround it with activities you do and items you use to keep yourself healthy and hydrated. You can draw images yourself, print them from the internet, add your own photos, or cut them from magazines. You should also add any words that are suitable. You may like to increase this page to A3 to allow for LOTS of artwork.

