

# BE SMART CHOOSE TAP

an education resource  
for primary schools

**YEARS F-2**



BE  
SMART  
CHOOSE  
TAP

# BE SMART CHOOSE TAP

## Lesson Plan

Drinking tap water is a positive alternative to bottled water. More than a billion people worldwide do not have access to safe drinking water but sometimes in Australia we take our quality tap water for granted. Choosing tap is better for your health, the environment and is much less expensive. In the Central Highlands region, we are committed to providing the highest quality water to our customers.

These activities use hands-on and digital technologies to explore water in our bodies, water in everyday products, water in the environment and water around the world.

Students gain an understanding of some of the current priorities and challenges facing the Central Highlands region and people around the world. Students can look towards the future to tackle issues like climate change (including floods and droughts), population growth and differing opinions on how our water resources should be managed.



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# Victorian Curriculum F–10<sup>1</sup> links

## YEARS F–2

### Science

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Earth's resources are used in a variety of ways (VCSSU047)

### Geography

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Representation of the location of places and their features on maps and models, including a globe, and the location of the major geographical divisions of the world in relation to Australia (VCGGK063)

### Health and physical education

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Identify actions that promote health, safety and wellbeing (VCHPEP062)

Explore actions that help make the classroom a healthy, safe and active place (VCHPEP078)

### Mathematics

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Represent simple, everyday financial situations involving money (VCMNA075)

Count and order small collections of Australian coins and notes according to their value (VCMNA111)

### Digital technologies

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Collect, explore and sort data, and use digital systems to present the data creatively (VCDTDI015)

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<sup>1</sup> Victorian Curriculum and Assessment Authority <<http://victoriancurriculum.vcaa.vic.edu.au/>> (VCAA) Accessed 25 October 2017.

# CONTENTS

## ACTIVITY 1:

### Water in your body

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Students examine where and how water is used in their bodies. They discover the importance of staying hydrated.

## ACTIVITY 2:

### Choose tap

**p. 10**

Choosing tap water is better for the environment, is cheaper and helps keep you hydrated. That's why we encourage you to choose tap water over bottled water. Students compare bottled water and tap water in these three areas.

## ACTIVITY 3:

### Water and health around the world

**p. 12**

Clean drinking water, proper toilets and good hygiene are essential, yet millions of people don't have access to these basic services. Students investigate water supplies in other countries.

## Teacher background information

**p. 14**

## Resources

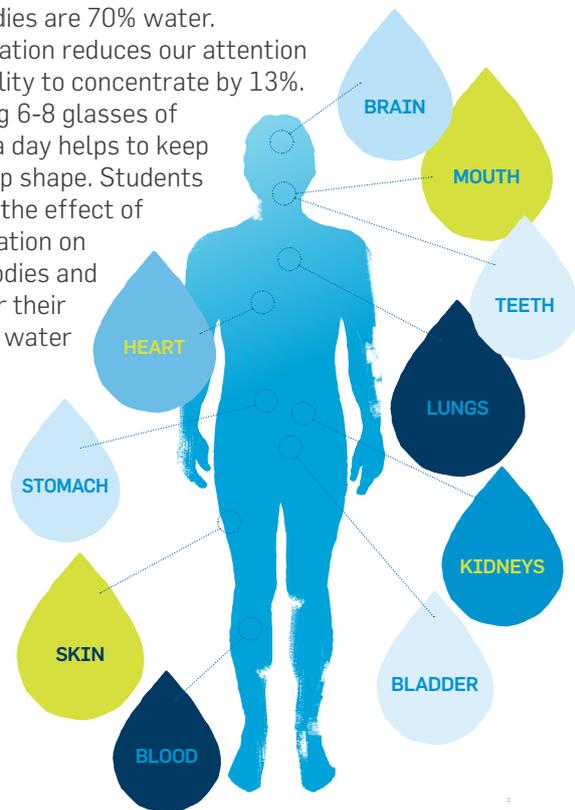
**p. 16**





# ACTIVITY 1: WATER IN YOUR BODY

Our bodies are 70% water. Dehydration reduces our attention and ability to concentrate by 13%. Drinking 6-8 glasses of water a day helps to keep us in top shape. Students look at the effect of dehydration on their bodies and monitor their weekly water intake.



Please refer to Teacher Background Information p. 14 or the *Stay healthy Stay hydrated* poster for the benefits of water on your body.

## Equipment

### How water keeps you healthy puzzle

(Large version available to borrow. Small version available free from Central Highlands Water or as pdf for printing. See Resources)

**How water keeps you healthy poster** (see Resources)

**Wee chart poster** (see Resources)

**Drinking water weekly chart** (attached)

**Body parts cards** (attached)

### Video

Universal Health Care *The importance of drinking water* (2012)

<https://www.youtube.com/watch?v=QrzRJM880kg>

### Website

Australian Guide to Healthy Eating chart

<https://www.eatforhealth.gov.au/guidelines/australian-guide-healthy-eating>

## Preparation

Borrow the large version of the *How water keeps you healthy* puzzle from Central Highlands Water or request a free small puzzle. You could also print the pdf of the puzzle in A3 size on thick paper. Cut along puzzle lines.

Print the *Drinking water weekly chart* in A3 size and fill in student names. You could store the chart in a plastic pocket or print it on thick card to ensure it lasts a week.

There are 14 different *Body parts cards*. Print and cut enough for one for each student. There may be double ups.

Set up video and website.

## Activity steps

### HOW WATER KEEPS YOU HEALTHY

1. As a class or in pairs, students assemble the *How water keeps you healthy* puzzle (large version or small version). The puzzle has 42 pieces. The small version can be put together in pairs or small groups. The large puzzle can be assembled as a group on the classroom floor.
2. Discuss the key messages in each drop.

### HYDRATE

3. Ask students how many glasses of water they drink a day. Graph their answers on the whiteboard. Also introduce the *Wee chart*. The sticker (see Resources) can be placed on the back of toilet doors so students can monitor their own wee to see if they're drinking enough water.
4. Display the *Australian Guide to Healthy Eating* chart. Point out or ask students to find the line that says 'Drink plenty of water'.
5. Explain that you will be charting students' water consumption over the next week. The *Drinking water weekly chart* can be used to monitor whether students have filled up their drink bottle with water at least once a day. When they fill up, they can initial next to their name under the day of the week.



## OUR BODIES NEED WATER

6. Watch the YouTube video:  
*The importance of drinking water* [0:36]  
<https://www.youtube.com/watch?v=QrzRJM880kg>
7. Using the completed *How water keeps you healthy* puzzle or poster, discuss the need to drink water every day. Why? What is the benefit to our bodies? What happens if we don't drink enough water? Recap the information in each drop.
8. Place the *Body parts cards* in a bucket or jar.
9. Ask students to take a card from the bucket or jar.
10. As a group, discuss each body part.
11. Students stand in a circle and read out their body part. Everyone else points to where they think it is on their own body. After they have located the body part, discuss what it does. For example:

**Brain:** thinks and tells your body what to do

**Mouth:** talks, eats

**Teeth:** chew

**Lungs:** breathe

**Kidneys:** gets rid of waste

**Bladder:** stores urine

**Blood:** carries oxygen and nutrients around the body

**Skin:** protects what's underneath

**Stomach:** digests food and drink

**Heart:** pumps blood

**Eyes:** see

**Intestine:** absorbs nutrients and water

**Liver:** removes toxins

**Bones:** support and protect organs

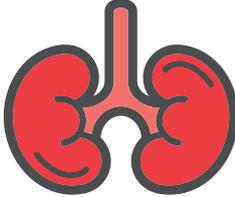
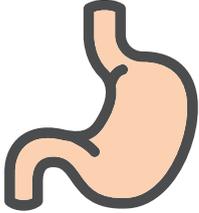
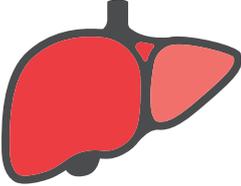
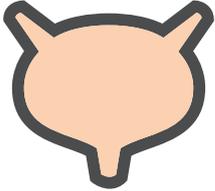
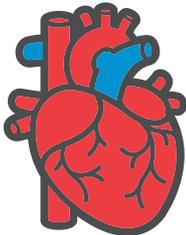
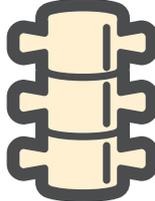
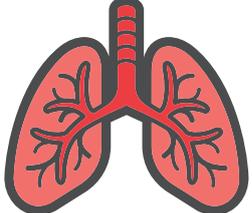
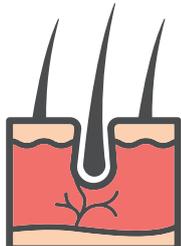
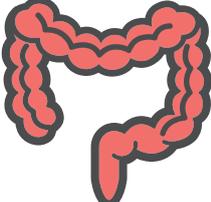
## Extension activity

Students draw a picture of water in their bodies and make it into a jigsaw. They could make it life-sized by having a partner trace around their own body.



# ACTIVITY 1:

## BODY PARTS CARDS

<p>Brain</p> 	<p>Kidneys</p> 	<p>Stomach</p> 
<p>Liver</p> 	<p>Mouth</p> 	<p>Bladder</p> 
<p>Heart</p> 	<p>Bones</p> 	<p>Teeth</p> 
<p>Blood</p> 	<p>Eyes</p> 	<p>Lungs</p> 
<p>Skin</p> 	<p>Intestine</p> 	

# ACTIVITY 2: CHOOSE TAP

Bottled water creates waste, is expensive and is a big problem for the environment. Students investigate the effect plastic bottles have on the environment. They compare the price of bottled water with that of tap water.

## Equipment

**Choose Tap big book** (available to borrow from Central Highlands Water. See Resources)

**Choose Tap book class set** (available to borrow from Central Highlands Water. See Resources)

**Stay healthy Stay hydrated poster** (See Resources)

**How water keeps you healthy poster**  
(See Resources)

**Empty plastic bottles** (1.5 or 2 litres)

**Supermarket catalogues**

**Play money**

**Video**

ABC Behind the News *Bottled Water* (2008)  
<http://www.abc.net.au/btn/story/s2402275.htm>

**Website**

Central Highlands Water fees and charges  
<http://www.chw.net.au/residents/fees-and-charges>

## Preparation

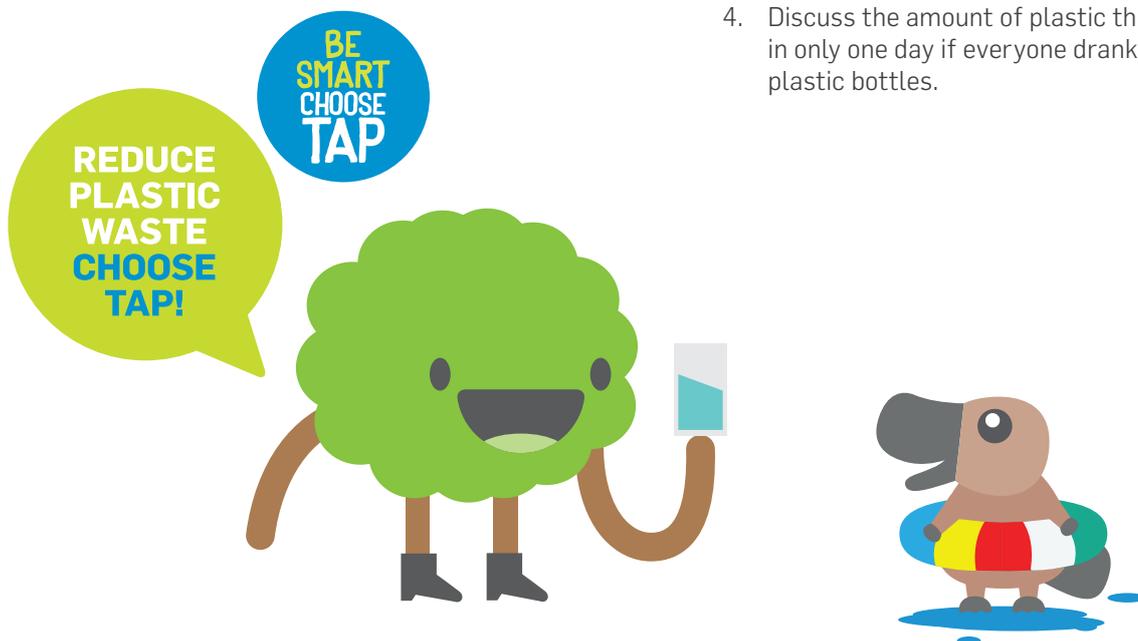
Ask students to bring in empty plastic bottles (from juice or water). Collect as many as you can (at least one for each student).

Set up video and website.

## Activity steps

### OUR ENVIRONMENT

1. Read the *Choose Tap* big book to students (or ask students to read from the class set) and discuss why we should choose tap water over bottled water. (Statistics show that of all plastic bottles purchased and used, almost 20% ends up in landfill or as litter in our environment. A lot of this eventually ends up in our oceans. Drinking tap water is better for the environment because we can refill drink bottles many times or use a glass or cup to fill up from the tap.)
2. Using the *How water keeps you healthy* poster or the *Stay healthy Stay hydrated* poster, ask students how many glasses of water we should drink each day. (One cup is around 250 ml so 6 to 8 glasses is around 1.5 to 2 litres of water every day.)
3. Each student takes an empty plastic bottle and places it in the middle of the room.
4. Discuss the amount of plastic this has generated in only one day if everyone drank water from plastic bottles.



## PLASTIC BOTTLES

5. Watch the ABC Behind the News video: *Bottled Water* [3:53]  
<http://www.abc.net.au/btn/story/s2402275.htm>
6. Discuss with students the benefits of tap water over bottled water that are mentioned in the video. What are the advantages of buying bottled water? What are the disadvantages? How can we change these habits?

## PRICE

7. Ask students to draw a picture of bottled water (alternatively, you could use the plastic bottles from the first activity).
8. As a class, research (on the internet or in supermarket catalogues) the price of some major brands of bottled water. (The average price in 2018 in Victoria is \$2.80 per litre.)
9. Students write price tags for their bottled water.
10. Using play money, students buy and sell their bottled water.
11. Research the current price of tap water in our region on the Central Highlands Water website. (Tap water in our region in 2018 is \$1.85 for 1000 litres.)
12. Discuss how much water 1000 litres is in terms of what it would fill (100 x 10 litre buckets, 5-6 x bathtubs etc. The price of one litre of tap water is \$0.00185. A 10 litre bucket would cost under 2 cents to fill. It would cost less than 30 cents to fill a bath.)
13. Discuss as a class the overall benefits of choosing tap water over bottled water.

## Extension activity

Students develop a multimedia presentation or poster about the benefits of tap water over bottled water.



# ACTIVITY 3: WATER AND HEALTH AROUND THE WORLD

In the Central Highlands region, we have access to some of the best quality drinking water in the world. Not everyone has this service. Over 650 million people live without access to safe drinking water. Students discover the ways that people in other countries access water. They look at solutions to the problems associated with unsafe drinking water.

## Equipment

**Buckets / plastic bottles / closed lid containers**

**A world globe or map**

### Video

WaterAid *It starts with water* (2013)

<https://www.youtube.com/watch?v=mOJscvMtAYY>

WaterAid *Simple Solutions – schools version* (2013)

<https://www.youtube.com/watch?v=GBIBbC-kcuc>

### Website

WaterAid map *Where we work*

<http://www.wateraid.org/au/where-we-work>

## Preparation

Set up videos and website.

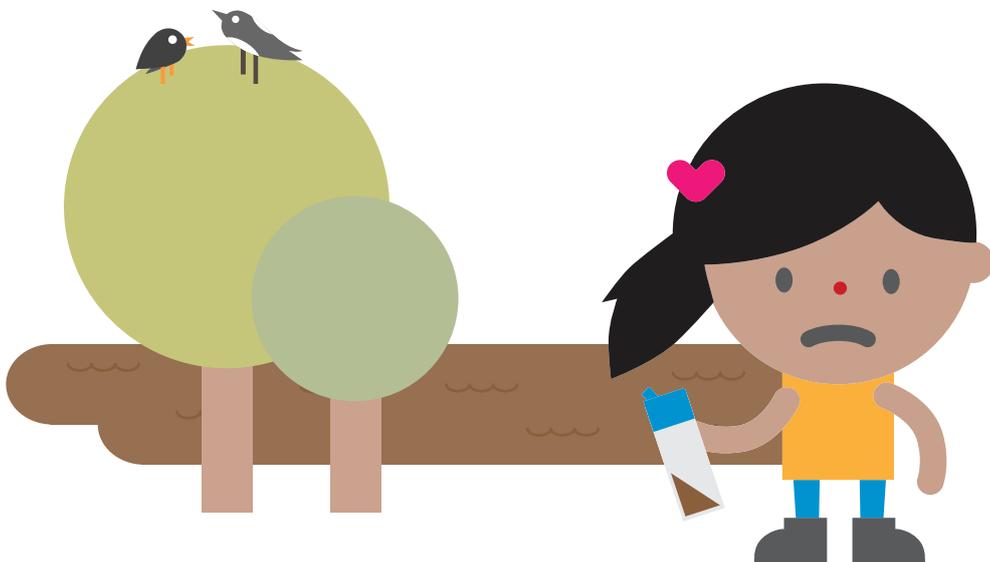
## Activity steps

### WATERAID

1. Watch the WaterAid video: *It starts with water* [2:00]  
<https://www.youtube.com/watch?v=mOJscvMtAYY>
2. Discuss with students the differences in access to water in countries around the world.  
Sample questions:
  - Where do we get water from?
  - Where do others get their water from?
  - Where do we go to the toilet?
  - Where do others go to the toilet?

### BUCKET CARRYING CHALLENGE

3. Quarter fill a bucket with water (approximately 2 litres) or fill a 2 litre plastic bottle or closed lid container with water.
4. Students form a line and pass the bucket along the line without spilling a drop. Alternatively, students walk in a relay race around the oval or school yard with a bucket, a plastic bottle or a closed lid container to experience what it's like for people to carry water a long distance. This could also be done with an empty bucket for each student (so as not to waste water).



## COUNTRIES AROUND THE WORLD

5. Using the WaterAid map *Where we work*, discuss the countries that WaterAid works in.
6. Find the countries on a world globe or map. Ask students what they know about these countries. What would they like to find out?

## SOLUTIONS

7. As a group, discuss some solutions to the problems of access to clean safe drinking water and adequate toilets.
8. Watch the WaterAid video:  
*Simple Solutions - schools version* [2:19]  
<https://www.youtube.com/watch?v=GBIBbC-kcuc>
9. Students use their ideas along with information on the video to create a solution in the form of a story, multimedia presentation, song, movie, drawing, poster or role play about access to clean drinking water and adequate toilets in different countries.

## Extension activity

Students investigate ways of fundraising for WaterAid or a similar organisation.



# TEACHER BACKGROUND INFORMATION

## Key messages

The key messages for students are:

- We all need to drink water to stay healthy and hydrated.
- Tap water is a positive alternative to bottled water. It is good for your health, better for the environment and much less expensive.
- Some people in the world don't have access to safe, clean drinking water. We can help.

## Water for our bodies

Water forms the basis of blood, digestive juices, urine and perspiration, and is contained in lean muscle, fat and bones.

### HEART

Dehydration can have a negative impact on the mechanical function of your heart.

### STOMACH

Water is a vital component for any healthy diet.

### SKIN

Water acts as a moisturiser for your skin and helps with the fluid regulation of your whole body.

### BLOOD

Your blood is around 90% water and carries oxygen and nutrients around the body.

### BRAIN

Your brain is around 80% water and plays a vital role in your body's response to dehydration. Dehydration reduces your attention and ability to concentrate.

### MOUTH

Thirst is a good measure of your hydration status. By the time you feel thirsty your body has lost between two and five cups of water.

### TEETH

Fluoride in tap water helps reduce the effect of acid in food and drink that can cause tooth decay.

### LUNGS

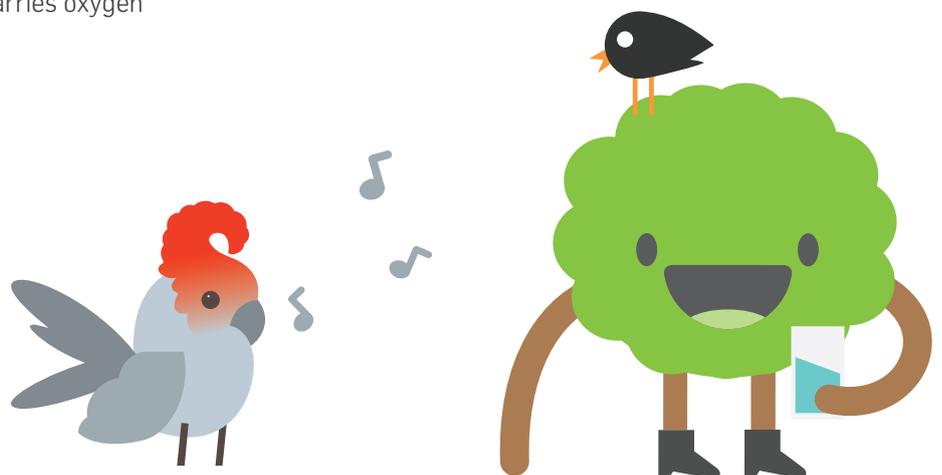
Your body loses water every time you breathe. Every day you lose the equivalent of one cup of water just through breathing.

### KIDNEYS

Water helps the kidneys eliminate toxic waste, regulate blood composition, mineral and ion levels.

### BLADDER

Drinking plenty of water helps reduce the risk of bladder infections and kidney stones.



## Choose tap

### HEALTH

The human body is 70% water. Our body relies on fresh supplies every day so it can function properly and stay healthy.

### COST

Each year Australians spend over \$500 million on bottled water, a product that costs 2000 times more per litre than tap water. With the \$3 (sometimes more!) spent on a one litre bottle of water, you can refill a one litre drink bottle from the tap every day for two years.

### ENVIRONMENT

Many plastic bottles end up in landfill or in the environment.

In 2014-15, the total consumption of PET plastics in Australia was 103,400 tonnes. Of this, 36,000 tonnes (34.8%) was recycled domestically and another 47,500 tonnes (45.9%) was exported to other countries for recycling. The rest of these bottles, 19,900 tonnes (19.3%), either end up in landfill, or in our environment.

## Access to water around the world

In the Central Highlands region, we have access some of the best quality drinking water in the world and it is delivered to us via pipes, plumbing and taps.

Not everyone has this service. Over 650 million people live without access to safe drinking water. Without this basic service, they have no choice but to drink dirty water. In many countries around the world, taps, wells and pipes simply don't exist or may not be affordable to the poorest people. Women and girls suffer the most. They are forced to walk long distances to collect dirty water which may make them sick with water-related diseases.

Another issue is access to an adequate toilet which is something many of us take for granted. 2.4 billion people worldwide don't have access to adequate sanitation. Many are forced to go in the open, spreading deadly diseases. Almost 900 children per day die from diarrhoeal diseases caused by dirty water and poor sanitation.

WaterAid Australia is a member of WaterAid, a non-government organisation whose mission is to transform the lives of the poorest and most marginalised people by improving access to safe water, sanitation and hygiene. Central Highlands Water supports WaterAid's work by raising money through internal and external programs.



## Useful links and references

- ABC Behind the News *Bottled Water* (2008)  
<http://www.abc.net.au/btn/story/s2402275.htm>
- AsapSCIENCE *What if you stopped drinking water?* (2014)  
<https://www.youtube.com/watch?v=zCheAcpFkL8>
- Australian Guide to Healthy Eating chart  
<https://www.eatforhealth.gov.au/guidelines/australian-guide-healthy-eating>
- Australian Packaging Covenant (2015), Recycling Data Report 2014-15: Plastics, report prepared by Sustainable Resource Use, Melbourne.  
<http://www.packagingcovenant.org.au/>
- Better Health Channel – sugary drinks know the facts  
<https://www.youtube.com/user/betterhealthchannel>
- Central Highlands Water  
[www.chw.net.au](http://www.chw.net.au)
- Central Highlands Water fees and charges  
<http://www.chw.net.au/residents/fees-and-charges>
- Choose Tap  
<http://choosetap.com.au/>
- Story of Stuff Project *The Story of Bottled Water* (2010)  
<https://www.youtube.com/watch?v=Se12y9hSOM0>
- Universal Health Care *The importance of drinking water* (2012)  
<https://www.youtube.com/watch?v=QrzRJM880kg>
- Victorian Curriculum and Assessment Authority  
<http://victoriancurriculum.vcaa.vic.edu.au/>
- WaterAid Australia  
[www.wateraid.org/au](http://www.wateraid.org/au)
- WaterAid *Everyone, Everywhere 2030: Grace's story* (2015)  
[https://www.youtube.com/watch?v=wF\\_HlgnWEwU](https://www.youtube.com/watch?v=wF_HlgnWEwU)
- WaterAid *It starts with water* (2013)  
<https://www.youtube.com/watch?v=mOJscvMtAYY>
- WaterAid map *Where we work*  
<http://www.wateraid.org/au/where-we-work>
- WaterAid *Simple Solutions - schools version* (2013)  
<https://www.youtube.com/watch?v=GBIBbC-kcuc>

- WaterAid *Water Walk* (2014)  
<https://www.youtube.com/watch?v=4V-KoJGGJ4s>
- WaterAid *We are WaterAid – schools version* (2013)  
<https://www.youtube.com/watch?v=eudZdeUn5rA>
- Water footprint calculator  
<http://waterfootprint.org/en/resources/interactive-tools/personal-water-footprint-calculator/>
- Water Footprint Network  
<http://waterfootprint.org/en/>
- Water – learn it. live it. (2013)  
*Volume 3: Water in the Community*  
<https://www.yvw.com.au/about-us/teaching-resources/teaching-materials>

## Resources

Please contact the Central Highlands Water Education Officer for the following free resources:

- Stay healthy Stay hydrated poster
- How water keeps you healthy poster
- Wee chart poster
- Wee chart stickers (for the back of the toilet door)
- Choose Tap stickers
- Choose Tap magnetic puzzle

The following resources are available free to borrow from Central Highlands Water:

- Fountains and Drains board game (large version)
- How water keeps you healthy puzzle (large version)
- Choose Tap big book
- Choose Tap book class set
- Human torso with removable parts

Please print the following resources or request them free from Central Highlands Water:

- Stay healthy Stay hydrated fact sheet
- How water keeps you healthy fact sheet
- How water keeps you healthy puzzle (small version)
- Fountains and Drains board game (small version)
- Wee chart
- Tap man colour in sheet

**Central Highlands Water**  
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