





BUSSELTON **WATER**

MODULE 2:
WATER IS PRECIOUS
10 WEEK PLAN



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WEEK ONE
Water usage in the home

LESSON ONE

Students identify how much water they use in different areas of the home

LESSON TWO

Students review worksheet "Water Conservation at Home" and create a poster about what they can do to save water

WEEK TWO
Water saving in the home

LESSON ONE

Identify what households can do to save water eg waterwise appliances

LESSON TWO

Students write a report about the various options that a household has to conserve water

WEEK THREE
Water saving in the garden

LESSON ONE

Invite rep from Mitre 10/Bunnings to come and speak to the class about waterwise plants and mulching etc.

LESSON TWO

Students design their own waterwise garden by researching plants on the internet.

WEEK FOUR
Water audits

LESSON ONE

Students complete the worksheet "Does my household use water wisely"

LESSON TWO

Students report to the class the outcomes of the water survey. Graph each of the questions as a classroom.

WEEK FIVE
Water audits

LESSON ONE

Students complete worksheet "Be a waterwise detective" and report results to the class

LESSON TWO

Students complete worksheet "Excuse me you're wasting water"

MODULE 2: WATER IS PRECIOUS

Concept planner – 10 week plan

WEEK SIX
Water audits

LESSON ONE

Students record their water meter reading at the beginning of the week and then at the end to determine their households usage. The students then aim to save 50 litres a day.

LESSON TWO

Students graph the water usage for both the weeks to demonstrate the saving. Students record what measures they took to reduce water eg shorter showers.

WEEK SEVEN
School audits

LESSON ONE

Students conduct an audit around the school to identify any leaking taps. Students place a bucket under the tap to determine how much water is leaked in an hour. Students then calculate that to a day, week etc

LESSON TWO

Students create posters for the school promoting turning off the tap. Place at key locations once completed.

WEEK EIGHT
Waterwise education

LESSON ONE

Students review the waterwise campaigns for Busselton Water/ Water Corporation

LESSON TWO

Students design their own summer waterwise campaign

WEEK NINE
Why do we save water?

LESSON ONE

Students discuss why they, their household and the community should save water

LESSON TWO

Students write to the local paper about the reasons why water conservation is important

WEEK TEN
Water with manufacturing

LESSON ONE

Students investigate the amount of water used to make various items

LESSON TWO

Students talk about technologies such as grey water which can be used to save water in manufacturing processes



**MODULE 2:
WATER IS PRECIOUS**

WEEK 1

Water usage in the home

LESSON 1

Students identify how much water they use in different areas of the home.

CURRICULUM LINKS

FOUNDATION YEARS | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 1

Water usage in the home

LESSON 2

Students review worksheet “Water Conservation at Home” and create a poster about what they can do to save water.

CURRICULUM LINKS

YEAR 2 | SCIENCE

People use science in their daily lives, including when caring for their [environment](#) and living things
(ACSHE035)

Earth’s resources, including water, are used in a variety of ways
(ACSSU032)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | SCIENCE

Science and [technology](#) contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations
(ACSHE120)

Water is an important resource that cycles through the [environment](#)
(ACSSU222)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



MODULE 2: WATER IS PRECIOUS WEEK 2 Water saving in the home	LESSON 1 Identify what households can do to save water e.g.; water wise appliances.
CURRICULUM LINKS	<p>YEAR 2 SCIENCE People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p>Earth's resources, including water, are used in a variety of ways (ACSSU032)</p> <p>YEAR 4 GEOGRAPHY The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)</p> <p>YEAR 7 SCIENCE Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)</p> <p>Water is an important resource that cycles through the environment (ACSSU222)</p>
CROSS CURRICULUM PRIORITIES	Sustainability
GENERAL CAPABILITIES	Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 2

Water saving in the home

LESSON 2

Students write a report about the various options that a household has to conserve water.

CURRICULUM LINKS

YEAR 2 | SCIENCE

People use science in their daily lives, including when caring for their **environment** and living things
(ACSHE035)

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | SCIENCE

Science and **technology** contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations
(ACSHE120)

Water is an important resource that cycles through the **environment**
(ACSSU222)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 3

Water saving in the garden

LESSON 1

Invite rep from Mitre 10/Bunnings to come and speak to the class about waterwise plants and mulching etc.

CURRICULUM LINKS

FOUNDATION YEARS | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met
(ACSSU211)

YEAR 6 | SCIENCE

The growth and survival of living things are affected by the physical conditions of their [environment](#)
(ACSSU094)

YEAR 7 | SCIENCE

People use understanding and skills from across the disciplines of science in their occupations
(ACSHE224)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 3

Water saving in the garden

LESSON 2

Students design their own waterwise garden by researching plants on the internet.

CURRICULUM LINKS

FOUNDATION YEARS | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met
(ACSSU211)

YEAR 6 | SCIENCE

The growth and survival of living things are affected by the physical conditions of their [environment](#)
(ACSSU094)

YEAR 7 | SCIENCE

People use understanding and skills from across the disciplines of science in their occupations
(ACSHE224)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 4

Water audits

LESSON 1

Students complete the worksheet “Does my household use water wisely?”

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth’s resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their
environment and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on
how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water takes
as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 4

Water audits

LESSON 2

Students report to the class the outcomes of the water survey. Graph each of the questions as a classroom.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their **environment** and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water takes as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



MODULE 2: WATER IS PRECIOUS WEEK 5 Water audits	LESSON 1 Students complete worksheet “Be a waterwise detective” and report results to the class.
CURRICULUM LINKS	<p>YEAR 2 SCIENCE Earth’s resources, including water, are used in a variety of ways (ACSSU032)</p> <p>People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p>YEAR 4 GEOGRAPHY The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)</p> <p>YEAR 7 GEOGRAPHY The classification of environmental resources and the forms that water takes as a resource (ACHGK037)</p>
CROSS CURRICULUM PRIORITIES	Sustainability
GENERAL CAPABILITIES	Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 5

Water audits

LESSON 2

Students complete worksheet “Excuse me you’re wasting water.”

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth’s resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their
environment and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views
on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water
takes as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 6

Water Audits

LESSON 1

Students record their water meter reading at the beginning of the week and then at the end to determine their households usage. The students then aim to save 50 litres a day.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their [environment](#) and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



MODULE 2:
WATER IS PRECIOUS

WEEK 6

Water Audits

LESSON 2

Students graph the water usage for both the weeks to demonstrate the saving. Students record what measures they took to reduce water e.g. shorter showers.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their [environment](#) and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

Evaluate sources for their reliability and usefulness and represent [data](#) in a range of appropriate forms, for example, [climate](#) graphs, compound column graphs, population pyramids, tables, field sketches and annotated diagrams, with and without the use of digital and [spatial technologies](#)
(ACHGS049)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 7

School audits

LESSON 1

Students conduct an audit around the school to identify any leaking taps. Students place a bucket under the tap to determine how much water is leaked in an hour. Students then calculate that to a day, week, etc.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their [environment](#) and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

Evaluate sources for their reliability and usefulness and represent [data](#) in a range of appropriate forms, for example, [climate](#) graphs, compound column graphs, population pyramids, tables, field sketches and annotated diagrams, with and without the use of digital and [spatial technologies](#)
(ACHGS049)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 7

School audits

LESSON 2

Students create posters for the school promoting turning off the tap. Place at key locations once completed.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their **environment** and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water takes as a resource
(ACHGK037)

This lesson may link to English and the study of Persuasive Texts as appropriate to your specific YEAR level.

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding


**MODULE 2:
WATER IS PRECIOUS**
WEEK 8

Waterwise Education

LESSON 1

Students review the waterwise campaigns for Busselton Water/Water Corporation.

CURRICULUM LINKS

Foundation Years | SCIENCE

 Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met (ACSSU211)

YEAR 2 | SCIENCE

 Earth's resources, including water, are used in a variety of ways
(ACSSU032)

 People use science in their daily lives, including when caring for their
environment and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

 The natural resources provided by the **environment**, and different views on
how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

 The classification of **environmental resources** and the forms that water takes
as a resource
(ACHGK037)

*This lesson may link to English and the study of Persuasive Texts as appropriate
to your specific YEAR level.*

 CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



MODULE 2:
WATER IS PRECIOUS

WEEK 8

Waterwise Education

LESSON 2

Students design their own summer waterwise campaign.

CURRICULUM LINKS

Foundation Years | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met
(ACSSU211)

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their
environment and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on
how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water takes
as a resource
(ACHGK037)

*This lesson may link to English and the study of Persuasive Texts as appropriate
to your specific YEAR level.*

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



MODULE 2: WATER IS PRECIOUS

WEEK 9

Why do we save water?

LESSON 1

Students discuss why they, their household and the community should save water.

CURRICULUM LINKS

FOUNDATION YEARS | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met
(ACSSU211)

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their [environment](#) and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

The nature of water scarcity and ways of overcoming it, including studies drawn from Australia and West Asia and/or North Africa
(ACHGK040)

YEAR 7 | SCIENCE

Science and [technology](#) contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations
(ACSHE120)

People use understanding and skills from across the disciplines of science in their occupations
(ACSHE224)

CROSS CURRICULUM PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



<p>MODULE 2: WATER IS PRECIOUS</p> <p>WEEK 9 Why do we save water?</p>	<p>LESSON 2 Students write to the local paper about the reasons why water conservation is important.</p>
<p>CURRICULUM LINKS</p>	<p>FOUNDATION YEARS SCIENCE Living things have basic needs, including food and water (ACSSU002)</p> <p>YEAR 1 SCIENCE Living things live in different places where their needs are met (ACSSU211)</p> <p>YEAR 2 SCIENCE Earth's resources, including water, are used in a variety of ways (ACSSU032)</p> <p>People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p>YEAR 4 GEOGRAPHY The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)</p> <p>YEAR 7 GEOGRAPHY The classification of environmental resources and the forms that water takes as a resource (ACHGK037)</p> <p>YEAR 7 SCIENCE Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)</p> <p>People use understanding and skills from across the disciplines of science in their occupations (ACSHE224)</p> <p><i>This lesson may link to English and the study of Persuasive Texts as appropriate to your specific YEAR level.</i></p>
<p>CROSS CURRICULUM PRIORITIES</p>	<p>Sustainability</p>
<p>GENERAL CAPABILITIES</p>	<p>Ethical Understanding</p>



MODULE 2:
WATER IS PRECIOUS

WEEK 10

Water with
manufacturing

LESSON 1

Students investigate the amount of water used to make various items.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views
on how they could be used sustainably
(ACHGK024)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 10

Water with
manufacturing

LESSON 2

Students talk about technologies such as grey water which can be used to save water in manufacturing processes.

CURRICULUM LINKS

YEAR 7 | SCIENCE

Science and **technology** contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations
(ACSHE120)

Science understanding influences the development of practices in areas of human activity such as industry, agriculture and marine and terrestrial resource management
(ACSHE121)

People use understanding and skills from across the disciplines of science in their occupations
(ACSHE224)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



BUSSELTON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 1: Water usage in the home



**MODULE 2:
WATER IS PRECIOUS**

WEEK 1

Water usage in the home

LESSON 1

Students identify how much water they use in different areas of the home.

CURRICULUM LINKS

FOUNDATION YEARS | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



MODULE 2: WATER IS PRECIOUS WEEK 1 Water usage in the home	LESSON 2 Students review worksheet “Water Conservation at Home” and create a poster about what they can do to save water.
CURRICULUM LINKS	<p>YEAR 2 SCIENCE People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p>Earth’s resources, including water, are used in a variety of ways (ACSSU032)</p> <p>YEAR 4 GEOGRAPHY The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)</p> <p>YEAR 7 SCIENCE Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)</p> <p>Water is an important resource that cycles through the environment (ACSSU222)</p>
CROSS CURRICULUM PRIORITIES	Sustainability
GENERAL CAPABILITIES	Ethical Understanding

TEACHER'S NOTES

Water usage in the home

Review documents as follows:

- Facts on water use in the home (Water Corporation) activity sheet
- Water conservation at home (Water Corporation) activity sheet

Additional information

How much water do we use in the home?

- On average a person uses about 200 litres of water per day, of which 5-10 litres is for basic survival, i.e. drinking and food preparation.
- The other 190 litres is discretionary and is used for washing (showers, dishes, clothes, toilets) and the garden.
- Some communities have been successful in reducing average personal tap water usage to as low as 130 litres per day.
- Approximately half the water supplied to urban areas in Australia ends up as waste water, according to a report by the Institute for Sustainable Futures prepared for the Water Services Association in 1998. Together we can all do our bit to help reduce water consumption. Installing water saving products can make a difference and despite the initial cost, they are an investment.

In the long term, you will be saving money and helping the environment. There's plenty of water saving ideas and initiatives to inspire you on the savewater.com.au website.



Illustration: © Water Corporation

LESSON ONE

Discuss with the students the various rooms in their houses where they consume water eg bathroom, toilet, kitchen. Discuss with the students the facts provided in the teacher's notes "Facts on water use inside the home."

Students go online and search the web to determine facts and figures about water usage in the home.

Students then report their findings for each room in the home which uses water (including garden).

LESSON TWO

Provide students with activity sheet – “Water Conservation In The Home”. Discuss what are some of the simple steps that people can do to save water in the home e.g. leaving taps running (which can waste 20,000 litres/year) etc.

Students create their own poster about one thing that households can do to reduce their water use.

Additional creative ideas

Students can create their own rap song about ways to conserve water.

Website links

- 🔗 <http://www.savewater.com.au/how-to-save-water/in-the-home>
- 🔗 <http://www.smarthomefamily.com.au/water-usage-in-the-smart-home/watergraph>
- 🔗 <http://www.sawater.com.au/interactivehouse/>

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- Water, More Precious Than Gold
- School Water Use
- Waterwise Inside the Home
- Waterwise Outside the Home
- The Wastewater System

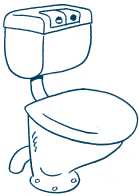
Facts on Water Use Inside the Home



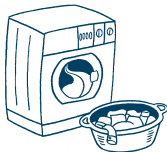
Showers: A standard shower head can deliver up to 25 litres per minute at full pressure. The average person using a standard shower head uses 11 litres per minute. A water-efficient low-flow shower head delivers 7–9 litres per minute.



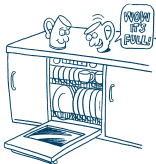
Baths: A standard bath when half full holds approximately 120 litres of water. However, baths vary in the volume of water they hold.



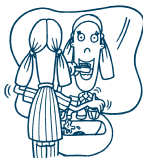
Toilets: Single-flush toilets use 11–20 litres per flush. Some dual-flush toilets use 9 litres per full flush and 4.5 litres per half flush, some 6 litres per full flush and 3 litres half flush, and the latest models use 4.5 per full flush and 3 litres per half flush. New houses and houses undergoing renovation must have dual-flush toilets. A silent leak in a toilet can waste 225 litres or more per day.



Washing machines: Washing machines can use 70–200 litres of water per load. Front-loading washing machines average 100 litres per cycle, while top-loading machines average 155 litres per cycle. Actual volumes used will vary according to the manufacturer. A front-loading washing machine is generally more efficient and will save water and power. Water and power can be saved by operating a washing machine only when it is fully loaded.



Dishwashers: Water used in dishwashers is measured in litres per cycle, which is the volume of water used per load of dishes. Older dishwashers use about 50 litres per cycle, while modern dishwashers (1990+ models) use about 18–32 litres per cycle. Again, actual volumes will vary according to the manufacturer. Some dishwashers have more effective spray systems and make better use of water during wash and rinse cycles. Water and power can be saved by operating a dishwasher only when it is fully loaded. For dishes washed by hand, the average kitchen sink holds 9 litres.



Cleaning teeth: If the tap is left running, 5 litres can be wasted; 1 litre is used if the tap is turned off.



Leaking taps: A dripping tap can waste up to 10 000 litres (approximately 1000 10 litre buckets filled to the brim) of water a year. We need to replace worn washers to prevent such wastage.

Water Conservation at Home

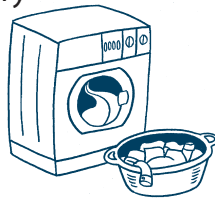
The weather gets warmer in summer and the use of water increases. Water is a scarce, replenishable resource but we cannot always rely on winter rains to fill our dams. We need to make sure that we don't waste water foolishly. Some people are not water conscious and, instead of thinking of ways to conserve (save) water, they waste it. Imagine this: 'Dad is washing his car with the hose. He decides to take a break and goes indoors. He doesn't bother to turn the tap off properly and water trickles from the hose for four hours! What a waste!' Put a bucket under a tap that's dripping and see how much water has collected after one hour. You will be surprised! Here are some more ways in which water can be wasted. Can you think of any more?

Bathroom



Showering too long
(Take 3–5 mins instead of 10 mins)

Laundry



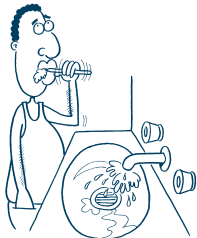
Using the washing machine for small loads when it would be better to wait for a larger load

Kitchen



Using too much water to boil vegetables. They'd be more nutritious if they were steamed or microwaved

Bathroom



Leaving taps running while you clean your teeth

Garden



Wasting water by washing car
a) too often; b) with hose instead of bucket of water

Kitchen



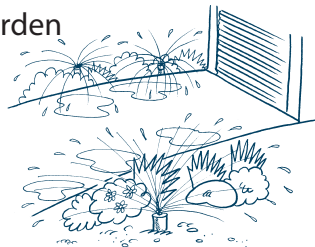
Putting too much water in the kettle (this also wastes gas or electricity because probably not all the water is used)

Garden



Watering garden
a) for too long;
b) in the heat of the day;
c) in strong winds

Garden



Watering the driveway as well as the garden (bricks and concrete do not need water)

General



Wasting water by not fixing leaking taps



BUSSETON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 2: Water saving in the home



MODULE 2: WATER IS PRECIOUS WEEK 2 Water saving in the home	LESSON 1 Identify what households can do to save water e.g.; water wise appliances.
CURRICULUM LINKS	<p>YEAR 2 SCIENCE People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p>Earth's resources, including water, are used in a variety of ways (ACSSU032)</p> <p>YEAR 4 GEOGRAPHY The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)</p> <p>YEAR 7 SCIENCE Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)</p> <p>Water is an important resource that cycles through the environment (ACSSU222)</p>
CROSS CURRICULUM PRIORITIES	Sustainability
GENERAL CAPABILITIES	Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 2

Water saving in the home

LESSON 2

Students write a report about the various options that a household has to conserve water.

CURRICULUM LINKS

YEAR 2 | SCIENCE

People use science in their daily lives, including when caring for their **environment** and living things
(ACSHE035)

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | SCIENCE

Science and **technology** contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations
(ACSHE120)

Water is an important resource that cycles through the **environment**
(ACSSU222)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding

TEACHER'S NOTES

Water saving in the home

Review documents as follows:

- Review website www.busseltonwater.wa.gov.au
- DVD – www.busseltonwater.wa.gov.au

LESSON ONE

Discuss with the students waterwise appliances and ratings within the home. These can include shower heads, 4.5 star washing machines, dual flush toilets etc. Outline some of the savings that these appliances can make to the homes water consumption. For example:

- 4 star rated dishwasher – save 15 litres per wash – save 5000 litres per annum
- Water efficient washing machine – save 25,000 litres per annum

Students go on line and source various waterwise appliances that could be included in a home and create a catalogue (like food catalogue) which describes the appliance and how much water it saves per annum.



Illustration: © Water Corporation

LESSON TWO

Students write a report about ways that a household can save water both inside and outside the home. Students can also describe different incentives that are provided by water utilities around the country to encourage households to save water.

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- School Water Use
- Waterwise Outside the Home
- Water, More Precious Than Gold
- Waterwise Inside the Home
- The Wastewater System

WAYS TO CONSERVE WATER USE

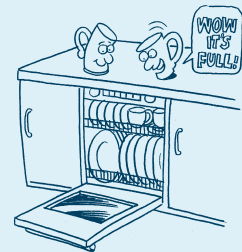
IN THE BATHROOM

- Take shorter showers and install water efficient taps or tap aerators. An efficient shower head will give you the same quality shower with 50% less water use.
- Turn the tap off when shaving or brushing your teeth, you will be surprised just how much water you save.
- Avoid flushing toilets unnecessarily. Don't put anything except toilet waste into the toilet. Dead spiders, cosmetic pads and other trash belong in the rubbish, not the toilet.



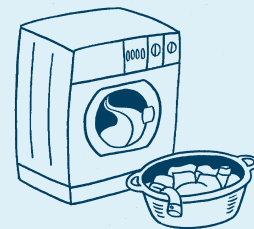
IN THE KITCHEN

- Rinsing your dishes in a plugged sink rather than under a running tap saves water and is just as easy and effective.
- Make sure the dishwasher is full before running.
- Don't leave water running when preparing food, or defrosting things.



IN THE LAUNDRY

- Adjust the water level for smaller washing loads. Front-load washers use about a third less water than top-loading (and less washing powder). Most also have an automatic load-to-water adjustment, and some have a suds-saver option that drains wash water into your laundry tub to be reused for another load.
- If you're considering a new machine make sure to consider the Water Rating.



IN THE GARDEN

- Design your garden with plants native to the area.
- Mulch your garden. Mulch is a layer of material spread on top of the soil to conserve moisture, discourage the growth of weeds and even out soil temperature - it can keep up to 70% more water in the soil.
- Invest in a pool cover, not only will it save water it will also save on chemicals as it helps maintain a correct chemical balance.



Illustration: © Water Corporation



BUSSELTON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 3:

Water saving in the garden



**MODULE 2:
WATER IS PRECIOUS**

WEEK 3

Water saving in the garden

LESSON 1

Invite rep from Mitre 10/Bunnings to come and speak to the class about waterwise plants and mulching etc.

CURRICULUM LINKS

FOUNDATION YEARS | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met
(ACSSU211)

YEAR 6 | SCIENCE

The growth and survival of living things are affected by the physical conditions of their [environment](#)
(ACSSU094)

YEAR 7 | SCIENCE

People use understanding and skills from across the disciplines of science in their occupations
(ACSHE224)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 3

Water saving in the garden

LESSON 2

Students design their own waterwise garden by researching plants on the internet.

CURRICULUM LINKS

FOUNDATION YEARS | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met
(ACSSU211)

YEAR 6 | SCIENCE

The growth and survival of living things are affected by the physical conditions of their [environment](#)
(ACSSU094)

YEAR 7 | SCIENCE

People use understanding and skills from across the disciplines of science in their occupations
(ACSHE224)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding

TEACHER'S NOTES

Water saving in the garden

- Contact Mitre 10/Bunnings on 9752 4022 or 9752 6100 and arrange a time to visit the school.

LESSON ONE

Representatives from Mitre 10/Bunnings will outline to students the various waterwise plants that are ideal for Busselton gardens. They will also provide advice on water retention products, waterwise irrigation, mulch etc.

LESSON TWO

Students research online the various waterwise garden designs and plants. Students print out images of waterwise plants/flowers and create a garden design. Students can also include soil wetting products etc. Students can either plan their gardens under key themes e.g. cottage, native or create a general design.

Additional creative ideas

Students create a sales catalogue of plants that are known as waterwise plants.

Website links

 <http://goo.gl/zFpUll>

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- Water, More Precious Than Gold
- School Water Use
- Waterwise Inside the Home
- Waterwise Outside the Home
- The Wastewater System

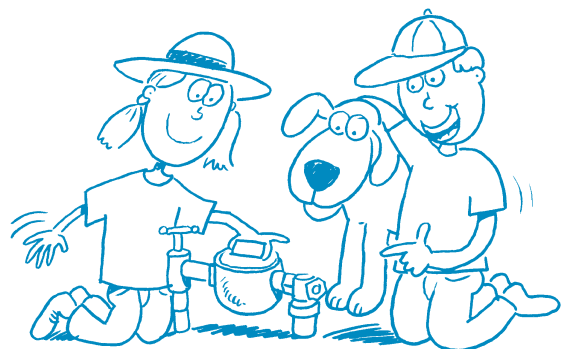


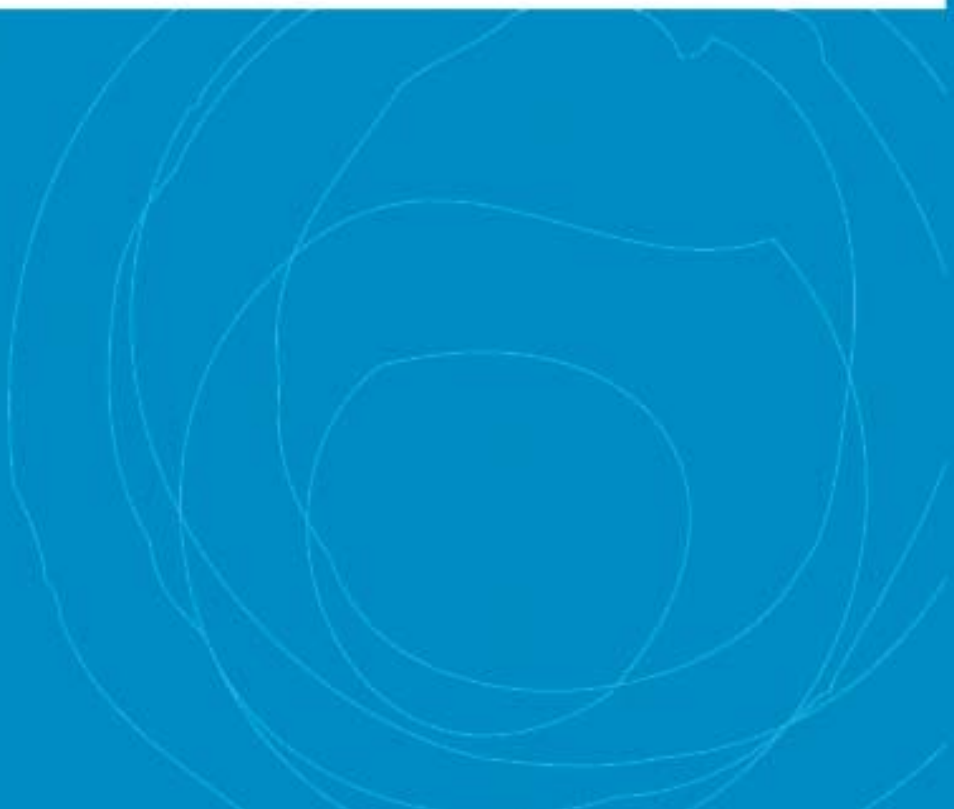
Illustration: © Water Corporation



BUSSELTON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 4: Water audits





**MODULE 2:
WATER IS PRECIOUS**

WEEK 4

Water audits

LESSON 1

Students complete the worksheet “Does my household use water wisely?”

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth’s resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their
environment and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on
how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water takes
as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 4

Water audits

LESSON 2

Students report to the class the outcomes of the water survey. Graph each of the questions as a classroom.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their **environment** and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water takes as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding

TEACHER'S NOTES

Water audits

Review documents as follows:

- “Does My Household Use Water Wisely” (Water Corporation) Worksheet

LESSON ONE

Recap with the students the various ways that water can be saved in the home e.g. waterwise appliances, reducing the length of showers, using a cup instead of running the tap when you brush your teeth etc.

Discuss the worksheet “Does My Household Use Water Wisely”. Students take the sheet home as part of their homework and complete with parents assistance.

LESSON TWO

As a class, discuss each of the answers for the questions derived from the worksheet “Does My Household Use Water Wisely”. Have students show their hands for each of the answers e.g. how many of you have water efficient shower heads. Record the number of yes/no's for each question.

Students then do a graph for each of the questions to demonstrate what percentage of people in the classroom responded positively/negatively to each of the questions.

Once the class have completed their graphs project them onto the white board and consider each graph. At the end of the session discuss if the classroom is in the majority using water wisely (or not).

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- Water, More Precious Than Gold
- School Water Use
- Waterwise Inside the Home
- Waterwise Outside the Home
- The Wastewater System

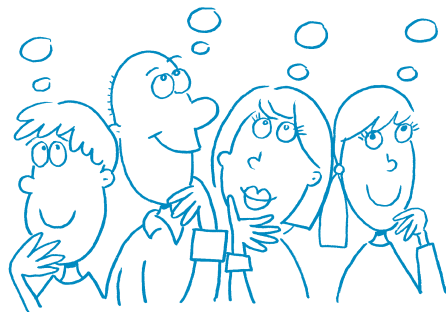
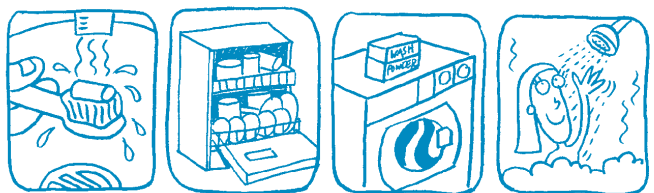
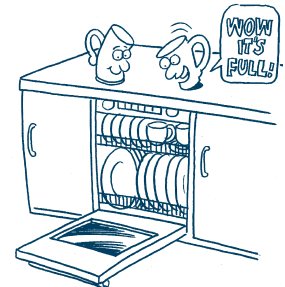


Illustration: © Water Corporation

Does My Household Use Water Wisely Inside the Home?

Dear Parent/Guardian,

The children are currently learning about saving water inside the home. Your child has been asked to carry out a water survey to investigate ways of saving water. These include behavioural changes and the use of water-efficient appliances. Please assist your child in carrying out this survey. Thank you.



Does your household (please circle):

Bathroom	Kitchen	Laundry
Have water-efficient shower heads? Yes / No	Have a new WELS star rated (or an old AAAAA rated) dishwasher? Yes / No	Have a new WELS star rated (or an old AAAAA rated) washing machine? Yes / No
Leave the tap running while they are cleaning their teeth? Yes / No	Wash dishes under the tap rather than putting a plug and water in the sink? Yes / No	Use full loads rather than half loads when washing clothes? Yes / No
Have showers for longer than 5 minutes? Yes / No		
Have a bath filled to the top? Yes / No	Toilet	Other
	Have a dual-flush toilet? Yes / No	Have leaking taps anywhere inside the home? Yes / No

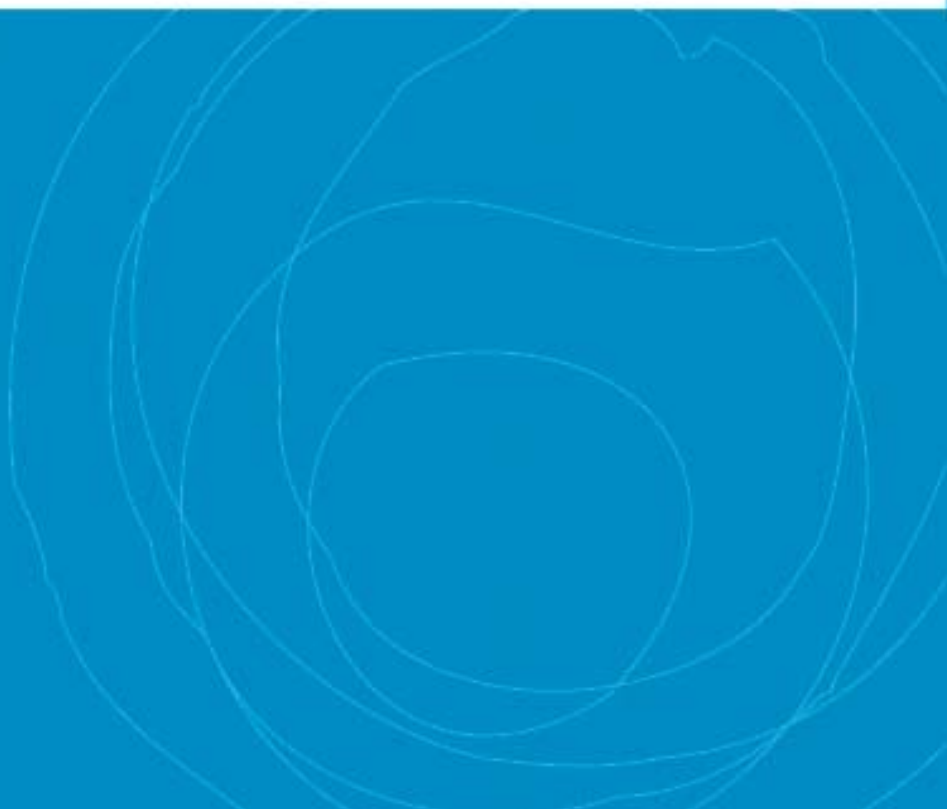
How does your household actively try to reduce its water use inside the home?



BUSSELTON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 5: Water audits





MODULE 2: WATER IS PRECIOUS WEEK 5 Water audits	LESSON 1 Students complete worksheet “Be a waterwise detective” and report results to the class.
CURRICULUM LINKS	<p>YEAR 2 SCIENCE Earth’s resources, including water, are used in a variety of ways (ACSSU032)</p> <p>People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p>YEAR 4 GEOGRAPHY The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)</p> <p>YEAR 7 GEOGRAPHY The classification of environmental resources and the forms that water takes as a resource (ACHGK037)</p>
CROSS CURRICULUM PRIORITIES	Sustainability
GENERAL CAPABILITIES	Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 5

Water audits

LESSON 2

Students complete worksheet “Excuse me you’re wasting water.”

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth’s resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their
environment and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views
on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water
takes as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding

TEACHER'S NOTES

Water Audits

Review documents as follows:

- “Be a Waterwise Detective” (Water Corporation) worksheet
- “Excuse Me You’re Wasting Water” (Water Corporation) worksheet

LESSON ONE

Summarise the findings from week four when students reviewed their homes and determined if they had waterwise appliances.

Provide students with a copy of “Be a Waterwise Detective” worksheet. Advise students that they are to take the sheets home and complete with their parents.

Once students have completed the worksheet then discuss in the class if:

- Students found any leaking taps in their homes
- What waterwise appliances they did have in their homes and where
- What steps they would recommend for their homes to make them more waterwise

Students then create an action list for their homes to make them more waterwise – cover both inside and outside the home.

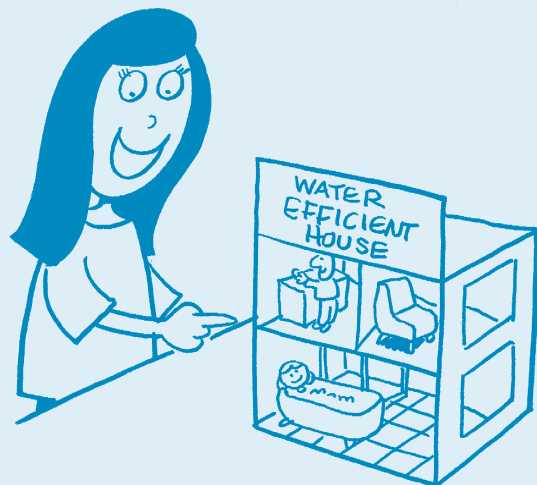


Illustration: © Water Corporation

LESSON TWO

Provide students with a copy of the worksheet “Excuse Me You’re Wasting Water”. Discuss with the students the different scenarios in each of the pictures and what are some of the things that could be said between the characters. In particular emphasise that:

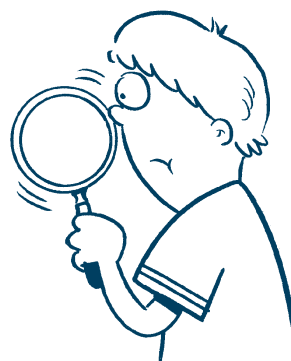
- Watering should occur before 9.00am and after 6.00pm (and not in the heat of the day)
- There are nominated watering days
- Maintain the water on the garden and not the pavement
- Water by hand will provide a more accurate coverage
- Use wetting agents so that water soaks into the soil and does not run off

Students then complete the worksheet by filling in the speech balloons with their own story line. Once completed students can colour in the sheet and then share their stories as a class.

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- Water, More Precious Than Gold
- School Water Use
- Waterwise Inside the Home
- Waterwise Outside the Home
- The Wastewater System



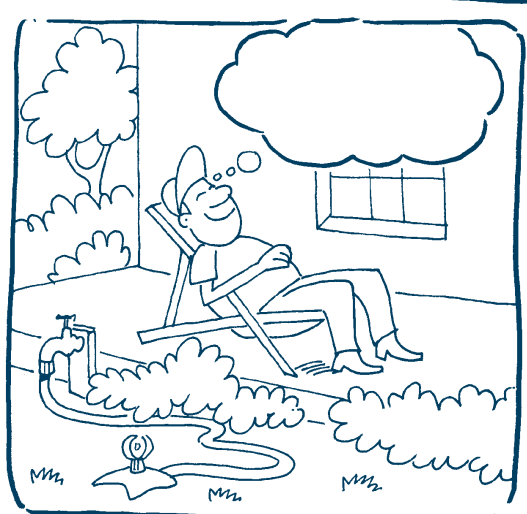
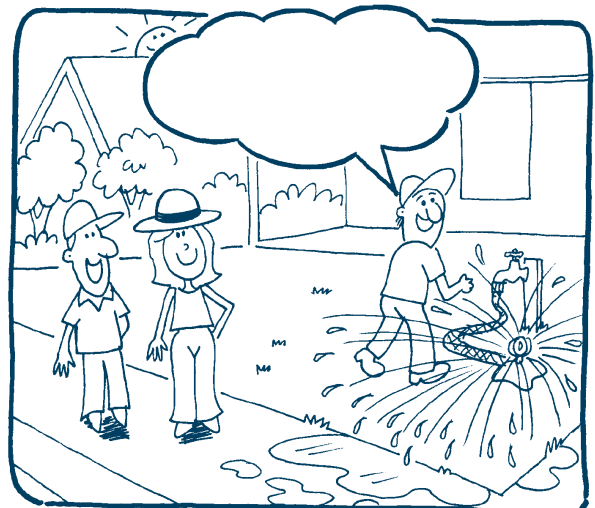
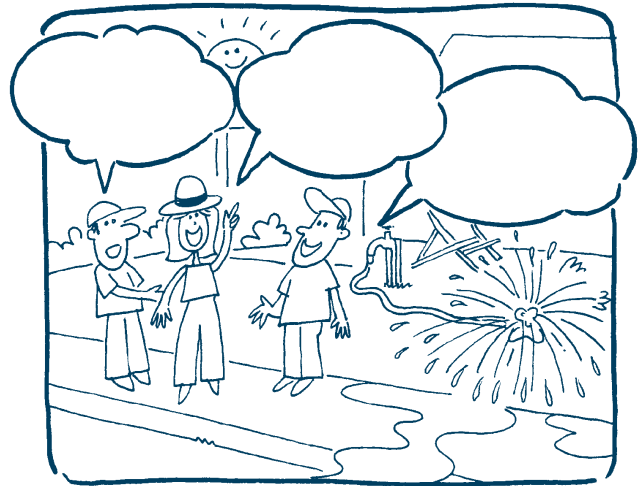
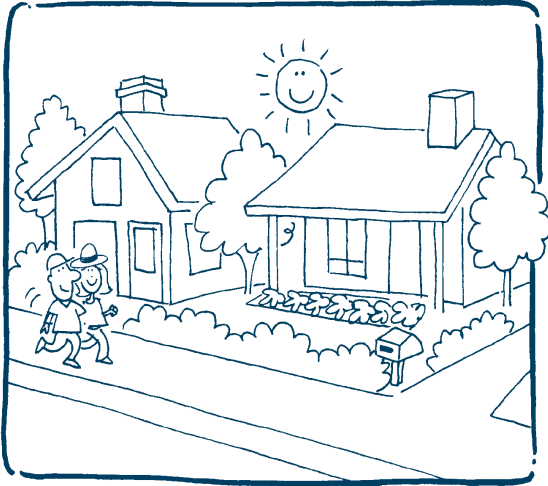
Be a Waterwise Detective

Imagine you are a Waterwise Detective for a day. Take a walk through your home and identify the following for each area.

KITCHEN 		List appliances that use water in the kitchen. Are they water-efficient?	
How many leaking taps are there? <input type="text"/>		1. _____	Water-efficient? Yes / No
		2. _____	Water-efficient? Yes / No
LAUNDRY 		List appliances that use water in the laundry. Are they water-efficient?	
How many leaking taps are there? <input type="text"/>		1. _____	Water-efficient? Yes / No
		2. _____	Water-efficient? Yes / No
BATHROOMS 		List appliances that use water in the bathrooms. Are they water-efficient?	
How many leaking taps are there? <input type="text"/>		1. _____	Water-efficient? Yes / No
		2. _____	Water-efficient? Yes / No
TOILETS 		IN THE GARDEN 	How many leaking taps are there? _____
Do you have dual-flush toilets? Yes / No			Type of reticulation used? _____
			Is it leaking? Yes / No

For the areas of concern you encountered, suggest ways of rectifying the problems.

'Excuse Me, You're Wasting Water'





BUSSELTON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 6: Water audits



**MODULE 2:
WATER IS PRECIOUS**

WEEK 6

Water Audits

LESSON 1

Students record their water meter reading at the beginning of the week and then at the end to determine their households usage. The students then aim to save 50 litres a day.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their [environment](#) and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



MODULE 2:
WATER IS PRECIOUS

WEEK 6

Water Audits

LESSON 2

Students graph the water usage for both the weeks to demonstrate the saving. Students record what measures they took to reduce water e.g. shorter showers.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their [environment](#) and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

Evaluate sources for their reliability and usefulness and represent [data](#) in a range of appropriate forms, for example, [climate](#) graphs, compound column graphs, population pyramids, tables, field sketches and annotated diagrams, with and without the use of digital and [spatial technologies](#)
(ACHGS049)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding

TEACHER'S NOTES

Water audits

Review documents as follows:

- “Household Water Use” (Water Corporation) worksheet

LESSON ONE

Explain to the students that water usage is measured at the home with the use of a water meter. Take the students to the school's water meter and show them the window of digits. Explain that the first four numbers in black represent kilolitres and the last three digits in red represent litres.

Provide the students with the worksheet “Household Water Use” and explain that the students are going to conduct a water audit at their home.

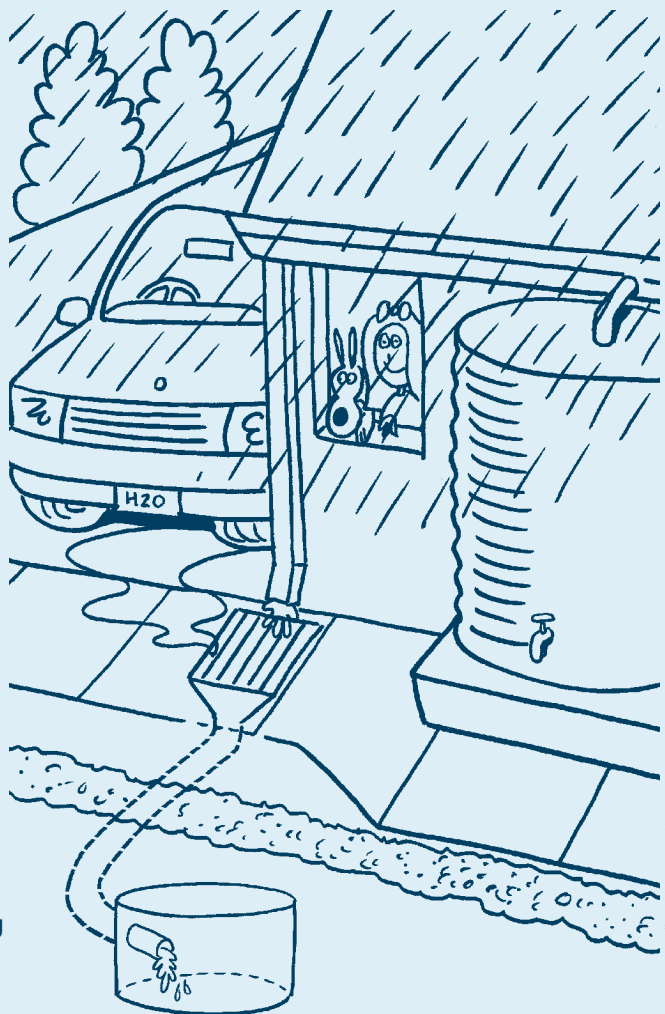
Students go home with the worksheet and with the help of the parents' record the meter reading for the beginning of the week. They then complete the reading for the end of the week ie Monday – Sunday.

Once meter readings are complete ask the students to report to the class what the volume of water was that they used in their household for the week.

Complete the calculations for the worksheet which require:

- How many litres per person was used during the week
- How many litres per day was used by the household

Discuss if we were going to save 50 litres (5 buckets) per day what are some of the things we could do around the house. Brainstorm with the students the range of ideas and then ask the students to choose three things that they are going to work towards implementing in their homes.



LESSON TWO

After the second week students bring in their meter reading for their homes. They compare the water usage per week and then try to determine if they have saved 50 litres per day (350 litres per week). Discuss as a class how effective the measures were in saving water in the home.

Students graph their water usage to compare both weeks in the following ways:

- Compare usage over the week
- Compare usage daily over the week
- Compare usage by the number of people in the home

Students will also record which measures they used to save water and their level of effectiveness.

Additional resources

Water Corporation Topic Booklets (K–10):

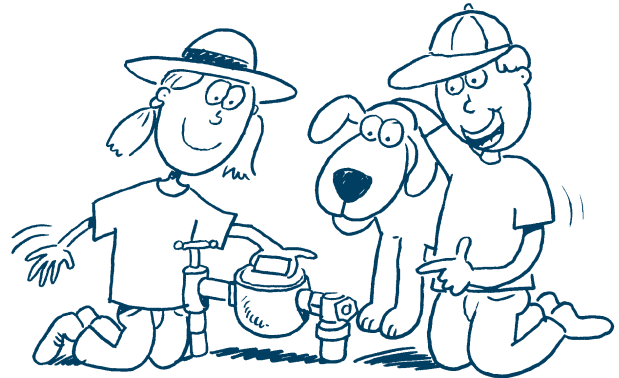
- Water and Public Health
- Water, More Precious Than Gold
- School Water Use
- Waterwise Inside the Home
- Waterwise Outside the Home
- The Wastewater System

Household Water Use

What was your household's water use over the past year?

How many litres was this?

How many people in your household?



How many litres would this be per person?

How many litres would this be for your household per day?

Monitor for week 1

Monitor your water meter for a week to see how much water your household is using. Record your figures in the chart below.

Monitor for week 2

See if your household can save 50 litres of water a day. Discuss with your household areas where they could reduce their water

Your Record

	Meter reading at the start of the week (kilolitres)	Meter reading at the end of the week (kilolitres)	Volume of water used during the week (litres)	Water use per person (litres)
Wk 1				
Wk 2				

Did your household manage to save 50 litres of water a day?

☐

Yes

☐

No

How did your household save water inside and outside the home?

Reading your water meter

Your water meter will show seven numbers. Read from left to right. The first four numbers (in black) are kilolitres and the last three numbers (in red) represent litres or thousandths of a kilolitre, e.g. 1473.809 kilolitres (kL).

Black Red

1	4	7	3	8	0	9
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BUSSETON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 7:
School audits



**MODULE 2:
WATER IS PRECIOUS**

WEEK 7

School audits

LESSON 1

Students conduct an audit around the school to identify any leaking taps. Students place a bucket under the tap to determine how much water is leaked in an hour. Students then calculate that to a day, week, etc.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their [environment](#) and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of [environmental resources](#) and the forms that water takes as a resource
(ACHGK037)

Evaluate sources for their reliability and usefulness and represent [data](#) in a range of appropriate forms, for example, [climate](#) graphs, compound column graphs, population pyramids, tables, field sketches and annotated diagrams, with and without the use of digital and [spatial technologies](#)
(ACHGS049)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 7

School audits

LESSON 2

Students create posters for the school promoting turning off the tap. Place at key locations once completed.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their **environment** and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water takes as a resource
(ACHGK037)

This lesson may link to English and the study of Persuasive Texts as appropriate to your specific YEAR level.

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding

TEACHER'S NOTES

School audit

LESSON ONE

Review from week four the graph which indicated how many households had leaking taps. Discuss with the students that a leaking tap can waste up to 20,000 litres per year. Break the students into groups of four and discuss with them that they are going to become "Leak Detectives". Tell the students that they are going to take a tour of the school and see if they can detect any taps or drinking fountains leaking. If they do they are to record where the tap is located (but do not turn it off).

Provide students 20 minutes to tour the school and then return to the classroom. Ask the students:

- How many taps they inspected and where they were located
- If any of the taps were leaking

If any of the taps were leaking then return to the site and place a bucket under the tap. Leave the bucket there for an hour and then return and remove the bucket and turn off the tap.

Return to the classroom and determine the volume of water that leaked during the hour. Multiply the volume by 24 to determine wastage for a day and then multiply by 7 to determine wastage for a week. Continue the calculations to determine wastage for a month, year etc.

Discuss with the students just how important it is to turn off or repair leaking taps based on the volume of wastage.

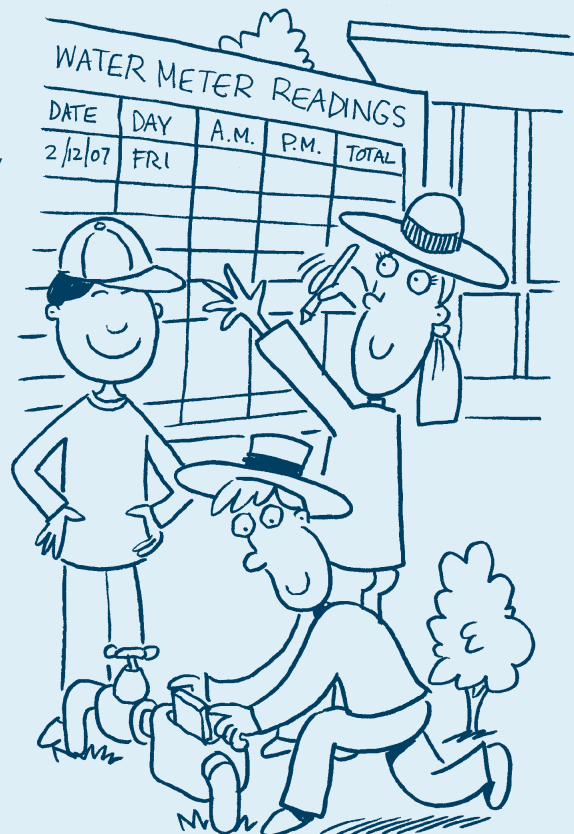


Illustration: © Water Corporation

LESSON TWO

Student's design a poster which reinforces how important it is to turn off taps and save water. Once completed students place these posters at drinking fountains, taps etc within the school grounds.

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- Water, More Precious Than Gold
- School Water Use
- Waterwise Inside the Home
- Waterwise Outside the Home
- The Wastewater System



BUSSETON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 8: Waterwise education


**MODULE 2:
WATER IS PRECIOUS**
WEEK 8

Waterwise Education

LESSON 1

Students review the waterwise campaigns for Busselton Water/Water Corporation.

CURRICULUM LINKS

Foundation Years | SCIENCE

 Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met (ACSSU211)

YEAR 2 | SCIENCE

 Earth's resources, including water, are used in a variety of ways
(ACSSU032)

 People use science in their daily lives, including when caring for their
environment and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

 The natural resources provided by the **environment**, and different views on
how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

 The classification of **environmental resources** and the forms that water takes
as a resource
(ACHGK037)

*This lesson may link to English and the study of Persuasive Texts as appropriate
to your specific YEAR level.*

 CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



MODULE 2:
WATER IS PRECIOUS

WEEK 8

Waterwise Education

LESSON 2

Students design their own summer waterwise campaign.

CURRICULUM LINKS

Foundation Years | SCIENCE

Living things have basic needs, including food and water
(ACSSU002)

YEAR 1 | SCIENCE

Living things live in different places where their needs are met
(ACSSU211)

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

People use science in their daily lives, including when caring for their **environment** and living things
(ACSHE035)

YEAR 4 | GEOGRAPHY

The natural resources provided by the **environment**, and different views on how they could be used sustainably
(ACHGK024)

YEAR 7 | GEOGRAPHY

The classification of **environmental resources** and the forms that water takes as a resource
(ACHGK037)

This lesson may link to English and the study of Persuasive Texts as appropriate to your specific YEAR level.

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding

TEACHER'S NOTES

Waterwise education

Review websites as follows:

- www.busseltonwater.wa.gov.au
- www.watercorporation.com.au

LESSON ONE

Students go online and review the websites for Busselton Water and Water Corporation and their education campaigns for the summer period.

Students then identify the key messages and slogans that each water utility is using to help conserve water.

Students also identify what new technologies the utilities are using to identify water leaks e.g. Busselton Water has introduced Radio Frequency (RF) meter reading.

Students report on the different promotions and technologies that they found from their online research.

LESSON TWO

Speak to students about some of the key messages that they might use for a water conservation campaign. Brainstorm ideas and then students design their own summer campaign. Students can create logos, slogans, press adverts etc and also indicate where they would place the campaign e.g. billboards, direct mail etc.

Students share their marketing campaigns with the class.

Students can utilise powerpoint to demonstrate their campaigns.

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- School Water Use
- Waterwise Outside the Home
- Water, More Precious Than Gold
- Waterwise Inside the Home
- The Wastewater System



Illustration: © Water Corporation



BUSSELTON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 9: Why do we save water?



MODULE 2: WATER IS PRECIOUS	
WEEK 9 Why do we save water?	LESSON 1 Students discuss why they, their household and the community should save water.
CURRICULUM LINKS	<p>FOUNDATION YEARS SCIENCE Living things have basic needs, including food and water (ACSSU002)</p> <p>YEAR 1 SCIENCE Living things live in different places where their needs are met (ACSSU211)</p> <p>YEAR 2 SCIENCE Earth's resources, including water, are used in a variety of ways (ACSSU032)</p> <p>People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p>YEAR 4 GEOGRAPHY The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)</p> <p>YEAR 7 GEOGRAPHY The classification of environmental resources and the forms that water takes as a resource (ACHGK037)</p> <p>The nature of water scarcity and ways of overcoming it, including studies drawn from Australia and West Asia and/or North Africa (ACHGK040)</p> <p>YEAR 7 SCIENCE Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)</p> <p>People use understanding and skills from across the disciplines of science in their occupations (ACSHE224)</p>
CROSS CURRICULUM PRIORITIES	Sustainability
GENERAL CAPABILITIES	Ethical Understanding



<p>MODULE 2: WATER IS PRECIOUS</p> <p>WEEK 9 Why do we save water?</p>	<p>LESSON 2 Students write to the local paper about the reasons why water conservation is important.</p>
<p>CURRICULUM LINKS</p>	<p>FOUNDATION YEARS SCIENCE Living things have basic needs, including food and water (ACSSU002)</p> <p>YEAR 1 SCIENCE Living things live in different places where their needs are met (ACSSU211)</p> <p>YEAR 2 SCIENCE Earth's resources, including water, are used in a variety of ways (ACSSU032)</p> <p>People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p>YEAR 4 GEOGRAPHY The natural resources provided by the environment, and different views on how they could be used sustainably (ACHGK024)</p> <p>YEAR 7 GEOGRAPHY The classification of environmental resources and the forms that water takes as a resource (ACHGK037)</p> <p>YEAR 7 SCIENCE Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)</p> <p>People use understanding and skills from across the disciplines of science in their occupations (ACSHE224)</p> <p><i>This lesson may link to English and the study of Persuasive Texts as appropriate to your specific YEAR level.</i></p>
<p>CROSS CURRICULUM PRIORITIES</p>	<p>Sustainability</p>
<p>GENERAL CAPABILITIES</p>	<p>Ethical Understanding</p>

TEACHER'S NOTES

Why do we save water?

LESSON ONE

Discuss with the students the reasons why it is important to conserve water:

- Limited amount of water within existing reserves
- Climate change is making the world warmer
- Growing populations
- Saves money building new infrastructure

Students go online and research the reasons why communities need to conserve water as well as some of the new technologies which are helping WA and Australia to maximise their water resources e.g. grey water. Students prepare a powerpoint report which they then share with the class.

LESSON TWO

Students write to the local paper putting forward an argument why communities need to save water.

Website links

- 🔗 <http://www.savewater.com.au/research-and-resources/why-save-water>
- 🔗 <http://www.environment.gov.au/water/australia/index.html>
- 🔗 <http://www.watercorporation.com.au/G/gwr.cfm>

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- Water, More Precious Than Gold
- School Water Use
- Waterwise Inside the Home
- Waterwise Outside the Home
- The Wastewater System



Illustration: © Water Corporation



BUSSETON WATER

MODULE 2: WATER IS PRECIOUS

WEEK 10: Water with manufacturing



MODULE 2:
WATER IS PRECIOUS

WEEK 10

Water with
manufacturing

LESSON 1

Students investigate the amount of water used to make various items.

CURRICULUM LINKS

YEAR 2 | SCIENCE

Earth's resources, including water, are used in a variety of ways
(ACSSU032)

YEAR 4 | GEOGRAPHY

The natural resources provided by the [environment](#), and different views
on how they could be used sustainably
(ACHGK024)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding



**MODULE 2:
WATER IS PRECIOUS**

WEEK 10

Water with
manufacturing

LESSON 2

Students talk about technologies such as grey water which can be used to save water in manufacturing processes.

CURRICULUM LINKS

YEAR 7 | SCIENCE

Science and **technology** contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations
(ACSHE120)

Science understanding influences the development of practices in areas of human activity such as industry, agriculture and marine and terrestrial resource management
(ACSHE121)

People use understanding and skills from across the disciplines of science in their occupations
(ACSHE224)

CROSS CURRICULUM
PRIORITIES

Sustainability

GENERAL CAPABILITIES

Ethical Understanding

TEACHER'S NOTES

Water use in manufacturing

Review documents as follows:

- “Embodied Water” worksheet

LESSON ONE

Provide students with the worksheet “Embodied Water”. Students visit the website www.waterfootprint.org and www.savewater.com.au/index.php?sectionid=43

Students complete the worksheet to identify how much water it takes to produce milk, coffee etc.

Students share the results of the worksheet as a class.

LESSON TWO

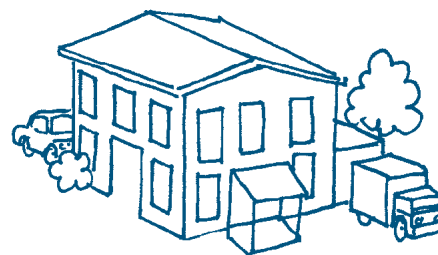
Students discuss and research the various technologies which are being used to minimise water usage in manufacturing eg grey water.

Students create a poster about what large companies can do to reduce their water usage with manufacturing.

Additional resources

Water Corporation Topic Booklets (K–10):

- Water and Public Health
- Water, More Precious Than Gold
- School Water Use
- Waterwise Inside the Home
- Waterwise Outside the Home
- The Wastewater System



Embodied Water

1. Visit the following websites to find out how much water is used to make listed products.

Water Footprint

www.waterfootprint.org

Savewater

www.savewater.com.au/index.php?sectionid=43

Product	Picture	Water used in production
Milk		1000 litres of water for 1 litre of milk
Coffee		
Beef		
Rice		
Wheat		
Other (choose your own)		
Other (choose your own)		

2. Choose one of the products and find out how water is used in the production process.

3. For the products you have chosen, find out what is being done to reduce the amount of water used in the production process.



Busselton Water School Programme

FEEDBACK FORM

Module 2

School information:

School:

Teacher:

Phone:

Email:

Date:

Module completed: YES ☐ NO ☐

FEEDBACK

Module 2:	Disagree	Neither Agree Nor Disagree	Agree
1. Provides the necessary resources to teach my class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Worksheets are clear and easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Teacher's notes are clear and easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Flows well and is in a logical format	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Links are complete and valid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is flexible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Challenges the abilities of my students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Electronic version on the provided CD is useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Inserts are current and useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Provides effective learning outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ANY COMMENTS?

1. What would make the module more effective?
2. Please note any links that may need to be updated:
3. Any other comments?

Please post this form to:
Busselton Water
PO Box 57
Busselton WA 6280

Or by email: <mailto:admin@busseltonwater.wa.gov.au>