

O'BRIEN GROUP ARENA SCIENCE CURRICULUM

Victorian Curriculum Levels Addressed: Levels 5, 6

At level 5, students are working towards level 6 standards

At level 6, students are working towards level 7 standards

Sustainability with water

Time required for this experiment depends on the number of sinks and buckets are available to the class.

Materials:

- Sink
- Hand soap
- Bucket
- Scales
- Worksheet
- Pencil or pen
- Calculator

Method:

1. Weigh your empty bucket and then on table below, record your results.
2. Place the bucket in the sink under the tap which you will use to wash your hands
3. With soap, wash your hands. Make sure you catch all of the water!
4. Re-weigh your bucket with the water in it and record your results
5. Calculate how many litres of water are in the bucket (1kg of water = 1L of water)
6. Estimate how many times you wash your hands a day on average, then complete the rest of the worksheet.
7. Recycle your grey water

Results:

On average, how many times a day do you wash your hands?
= Z

	Empty Bucket	Bucket and water	Water only
Weight	X	X + Y	Y

Use your answers above to calculate how many litres of water you might use washing your hands

- a. Daily = **Z * Y**
- b. Weekly = **Daily * 7**
- c. Monthly = **Weekly * 4**
- d. Yearly = **Monthly * 12**

For the Do's and Don'ts cloud, it is important for students to realise that consumption of grey water is not safe. This includes watering edible plants as they may contain bacteria which may be unsafe for consumption. You may wish to spend more time with the students on <http://www.recycledwater.com.au> for more in depth information.

Do	Don't
Water flowers Water roots of fruit trees	Use in cooking Shower with recycled water Drink recycled water Use as pets' drinking water Water veggie garden

Domain	Content Strand	Proficiency Strand	Key Elements of Standards
Science	Science Inquiry Skill: Questioning and predicting	Literacy Personal and Social capability	Level 5/6: With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be
	Science Inquiry Skill: Planning and conducting	Literacy Numeracy Personal and Social capability	Level 5/6: Students suggest ways to plan and conduct investigations, including how to use equipment safely, and how to record observations. Use equipment and materials safely, identifying potential risks



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	Science Inquiry Skill: Processing and analysing data and information	Literacy Numeracy Critical and creative thinking Information and communication technology capability	Level 5/6: Construct and use tables to represent and describe observations, patterns or relationships in data using digital technologies as appropriate Compare data with predictions and use as evidence in developing explanations
	Science Inquiry Skill: Communicating	Literacy Information and communication technology capability	Level 5/6: Communicate ideas, explanations and processes in a variety of ways, including multi-modal texts

