VORTEX CENTRE

GIPPSLAND WATER EDUCATION PROGRAM

About the program

The Vortex Centre is Gippsland Water's new educational resource for primary and secondary schools located at the world-first Gippsland Water Factory in Maryvale, Victoria.

Gippsland Water is offering a range of programs in the Vortex Centre that focus on various aspects of water education.

Each of the Vortex Centre education programs will include:

- Introductory welcome presentation (5 minutes)
- Opening video (10 minutes)
- Vortex interactive walkthrough (30 minutes)
- Presentation related to the program focus (15 minutes)
- An activity related to the program focus (30 minutes)

*Times are approximate only and can be tailored to meet your school's objectives and needs.

The Vortex Walkthrough

The Vortex Centre provides a multimedia experience for students to learn about water use and management in the Gippsland region, the water cycle and water sustainability.

The state-of-the-art 'green' facility features interactive displays, touch-screens and videos, with a focus on efficient use of water and sustainable water management; highlighting water as a precious resource at a local, state, national and global level.

Students will also learn about the treatment process happening at the Gippsland Water Factory and how recycled water is produced.

As students move through the centre, they will learn about the water cycle, Gippsland's water catchment and how it is managed, the Gippsland Water Factory treatment process, and how we can all play a part in conserving water and using it more wisely.

Vortex Centre education programs and the school curriculum

The different presentations and activities provided by Gippsland Water run across various VELS levels, domains and dimensions and can be tailored to fit the needs of students and the school curriculum.

For VCE students, information can be provided which is tailored to the needs of specific projects. Experts on wastewater treatment can also be provided to discuss various processes.

Program topics include:

- THE WATER CYCLE - The Loopy World of Water
- SAVING WATER - Our Commitment
- BLUE GOLD
- LIQUID LIFE - Water in Gippsland
- WE TREAT IT RIGHT
- IMPACTS ON WATER SUPPLY

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OVERVIEW OF PROGRAMS

1. THE WATER CYCLE - The Loopy World of Water

Students will learn about the different parts of the water cycle - precipitation, evaporation, condensation and transpiration, as well as gain an understanding of different states of matter (solid, liquid and gas). Students will have the opportunity to observe how the water cycle works by building their own miniature water cycle.

Activity

Students will build a terrarium (a jar with soil, rocks and a plant), which works like a miniature water cycle. This will allow students to observe the different stages of the water cycle.

VELS links

VELS levels	Strand	Domain	Dimension
2-4	Discipline-based learning	Science	• Science knowledge and under-standing • Science at work

2. SAVING WATER - Our Commitment

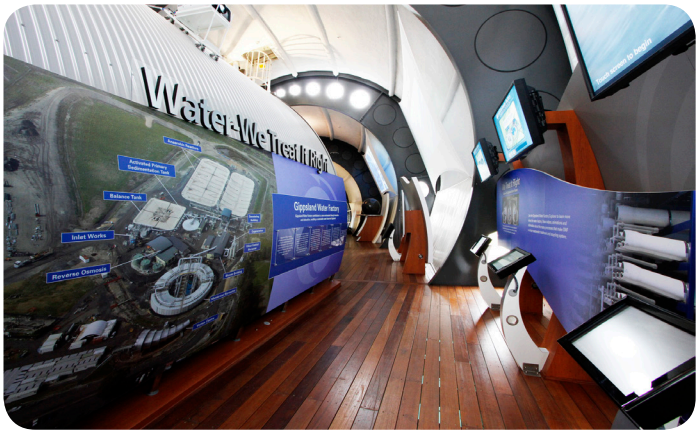
Students will learn about the types of water on earth and how scarce drinking water is, particularly in Australia. They will also learn about where most water is used in the home and techniques for conserving water around their home and school.

Activity

Students will apply their knowledge of water conservation strategies by making a badge design with a water saving slogan.

VELS links

VELS levels	Strand	Domain	Dimension
1-4	Discipline-based learning	The Arts Science	• Creating and making • Science knowledge and under-standing



3. BLUE GOLD

Students will learn about why water conservation is important. They will discover how much water they use and find out how they can reduce their water consumption. Students will also gain an understanding of embodied water (water that is used to make consumer products).

Activity

Students will calculate how much water they use in a day (shower, toilet, washing, watering the garden, etc.). They will also calculate how much water it takes to make particular products.

VELS links

VELS levels	Strand	Domain	Dimension
3-5	Discipline-based learning	Mathematics Humanities - Economics	• Number • Economic knowledge and under-standing

4. LIQUID LIFE - Water in Gippsland

Students will learn about different groups that use water in Gippsland (households, industry, agriculture) and how water is collected to supply the different groups that need it.

Activity

Students will take part in a water user relay race to consolidate their knowledge of how water is used in Gippsland. Each team will represent a type of water user (households, industry, agriculture) and race to take water from the reservoir or recycling plant.

VELS links

VELS levels	Strand	Domain	Dimension
3-4 3 4	Physical, personal and social learning Discipline-based learning Discipline-based learning	Mathematics Humanities - Economics Humanities Humanities - Economics	• Movement and physical activity • Economic knowledge and under-standing

5. WE TREAT IT RIGHT

Students will find out about what wastewater is and the difference between wastewater and stormwater. The program will look at the importance of treating wastewater, the treatment process, and the improvement as a result of the newly constructed Gippsland Water Factory.

Activity

Students will participate in a filtration challenge to learn about the process of wastewater treatment. In the challenge, students are given a bucket of dirty water to simulate the solid-liquid mix of sewage and must devise the best way of producing clean water using the equipment they are given.

VELS links

VELS levels	Strand	Domain	Dimension
4-5	Discipline-based learning Interdisciplinary learning	Science Design, Creativity and Technology	• Science knowledge and under-standing • Science at work • Investigating and designing • Producing

6. IMPACTS ON WATER SUPPLY

This program will focus on events which impact on the water supply in Victoria, including drought, population growth, climate change and El Nino/La Nina.

Activity

Students will work in small groups and take on various roles (presenter, statistician, environmental consultant, and economist) to prepare a report on how such events affects water supply, people and the environment.

VELS links

VELS levels	Strand	Domain	Dimension
4-5	Discipline-based learning Interdisciplinary learning	Science Humanities - Economics Humanities - Geography Communication	• Science knowledge and under-standing • Economic knowledge and under-standing • Economic reasoning and interpration • Geographic knowledge and under-standing • Presenting

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