

## Pymble Ladies' College

STEM Teacher Enrichment Academy 2018

### Year 7 – Global Water Issues

The Pymble Ladies' College STEM Global Water Issues event involved all of Year 7 and was implemented during a 3-day STEM Festival. This course was staffed by teachers from TAS, Science and Mathematics.

A Launch Event highlighted global issues with water purity, storage and availability and included a challenge to move water from one place to another. It was followed by Workshops to develop the skills necessary to complete their Challenge. The brief was to choose a global water issue, research the problem and existing solutions, explore multiple solutions of their own, prototype a final solution then communicate and persuade others of the value of their solution. They were given 2 days and access to experts to achieve their goals and pitch their idea with the catch-cry that **Great Ideas Need a Voice**.

They developed skills to identify issues relating to water, use data to draw conclusions, build a solution, understand the science behind the solution and enhance and adapt the solution.

They used Adobe Premiere Elements and Tinkercad to prototype and in the Problem – Solution process they used a Creativity Cube. They evaluated good video pitches.

Students investigated types of data, its collection and interpretation. They investigated area and volume formulae, capacity and unit conversions.

Science outcomes	SC4-4WS	SC4-8WS	SC4-9WS	SC4-13ES
Mathematics outcomes	MA4-19SP	MA4-20SP	MA4-13MG	MA4-14MG
TAS outcomes	4.1.1	4.2.1	4.2.2	

### Statement of impact

The students were able to make links between the disciplines, develop the STEM skills of Creativity, Problem solving, Synthesis, and Design thinking. They were exposed to authentic and real-world problems and developed skills to apply the design brief and to pitch a solution.

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#### For more information

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