Year 8 PBL

Geography/Mathematics

Water in the world



Welcome to your first PBL task for the year.

This assessment is based on the learning you have and will complete this term.

So far you have studied

- Geography Water in the world, Water processes, Water scarcity
- Mathematics Data collection, Statistics, Graphing,

Water in the World

In **HSIE** you have looked at water, including different forms and uses, access, water scarcity and causes/effects.

In this task you will research water scarcity in a country of choice and consider ways to sustainably manage water.

You will monitor your family's water usage for a week and compare it to the results of the people in your group too, using **mathematical** concepts to represent your data

Your team will devise specific targets/actions to reduce water usage on a personal level and also create an innovate national water management strategy.



Water in the world

- 4-5 per group
- Create and deliver an informative and interesting online digital resource
 - Google Slides
 - Prezi
 - Canva
 - Brochure
 - Booklet
 - Newspaper
 - Website
- Digital resource will include research, surveys, data, solutions and prototypes for water scarcity in a country of choice.





Pre task:

- Success criteria activity
- Get into groups of 4-5
- Choose your country

During task: (In more detail on your notification...)

- 1. Brainstorm your need-to-know questions
- 2. Research water scarcity
- 3. Proper a National Strategy (Team Action)
- 4. Collect and record individual data
- 5. Data analysis, comparison and graph construction
- 6. Goal setting
- 7. Showcase

Post Task

- Self and peer reflection document
- Report comment template



There is some maths involved... remember to include it in your digital resource

1.Collect individual data

- Each group member will collect data on their own family's water use for **ONE WEEK**.
 - Including information on: washing hands, showering, brushing teeth, flushing the toilet. cooking, washing dishes and clothes etc
- This will be done by completing the table attached at the end of the document.

2. Data analysis and graph construction

- Using a bar graph and pie chart, students will graph by hand their individual family data
- Using a scatter graph, students graph by hand the collective team data.
- Use a stem and leaf diagram to compare water use between males and females

Supporting Questions

- What is water scarcity?
- What are the causes of water scarcity?
- How widespread is water scarcity in your chosen country?
- Who is impacted most by water scarcity and how?
- How do natural and human processes influence the distribution and availability of water as a resource?
- What effect does the uneven distribution of water resources have on people, places and environments?
- How do we, as individuals, use water?
- How can we track our water usage?
- What is the best way to represent data on water usage?
- What are some strategies to reduce excessive water usage at home?
- What approaches can be used to sustainably manage water resources and reduce water scarcity on a national level?





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Product Submission

- 1. Complete the team strategy document and submit on the PBL G/C
- 2. Complete the success criteria activity and submit to the PBL G/C
- 3. Submit your online digital resource to the PBL G/C
- 4. Complete the self and peer evaluation and submit to the PBL G/C
- 5. Complete the report comment template and submit to the PBL G/C



Marking

- Marking criteria can be found on the final page of the task
- The task is worth 20 marks
- Weightings 40% HSIE and 10% maths





- You will be asked to reflect on the contributions that you and other group members have made
- You need to honestly and maturely assess the group performance.
- The reflection asks you to consider three key areas:

Collaboration Communication Time Management





This is a COLLABORATIVE TASK

- You should work with each other, bounce ideas off each other and give and receive feedback.
- Its not a task that you throw together the night before

Good luck =)