

File name: VR_1.3T_LP5_EarthScience_Science_11
Topic: Water distribution, weather and climate
Keywords: Water consumption, water conservation
Suggested grade level: Grade 11
Estimated activity time: 15 min

Earth Science – Science 11

Water distribution and its influence on weather and climate

VR 360⁰ exploration: Sydney Water 360 Virtual Reality Video
https://www.youtube.com/watch?v=YCMN6eSMe_E

General Introduction:

Participating in a VR 360⁰ exploration/expedition is like going on a vacation or trip. You have to plan your destinations, places to eat, relax, and where you would like to meet your friends and family. It means that you have to identify your objectives.

For teachers:

In this section, you will see a modified planning and preparation arranged into three steps. The steps are our suggestions. We hope they will help you maximize the learning opportunities a VR 360⁰ exploration/expedition can potentially offer.

Three steps:

- 1) Pre-exploration: Preview the playlist exploration yourself. By doing this, you are identifying possible questions and activities that might enrich students' VR experience.
- 2) During exploration: Provide guide or key questions or ask the students to formulate new questions about the playlist and encourage students to refer to other resources (e.g., YouTube videos, articles, etc.) to connect and enrich the playlist.
- 3) Post-exploration: Follow-up on the new questions and wonders students have identified. These questions might lead to an interdisciplinary inquiry project, blog posts or short video clips to link with the original unit or chapter coverage.

15-minute VR 360 exploration activity

Description:

In this 15-minute exploration activity, you'll see a 360° panorama on how Sydney sourced out its water.

Sydney water is sourced from some of the most pristine waters in the world. Natural source. Natural choice.

Objective:

The core learning outcome of this playlist is to enrich students' understanding and awareness of drinking water from tap to minimize the spread of water plastic bottles that threatened our oceans.

However, unlike a regular 2D video, this VR provides a 360° panorama, which allows your students to focus on different points of interest that might vary from student to student. So, take time to explore the playlist using different angles and positions.



Sydney Water 360 Virtual Reality Video

Suggested Guide:

1) Pre-exploration:

Know more about your Vancouver drinking water source:

<http://www.metrovancouver.org/services/water/Pages/default.aspx>

https://www3.epa.gov/region1/eco/drinkwater/your_drinkwater_source.html

2) During exploration:

What key questions could pique students' interest as they watch this playlist?

As well, ask them to think of interesting questions they want to answer as they watch the playlist. Let them discuss these questions and their possible answers.

They can do this by groups of two or three.

With limited number of Google cardboards, let students work in pairs. Let them take turn to watch the playlist and do a Q & A. For example, Student 1 will describe to student 2 what he/she is seeing right now. Student 2 will explain the playlist, to Student 1 and each student will take turns doing Q & A.

3) Post-exploration:

Give time for the pair/class to think about the questions and answers they have generated after watching the playlist.

Discuss the following questions with the students:

How do you reduce your water consumption?

What concrete ways on how you can contribute to conserving water resources?

Then invite them to read the link below. With the playlist, let them express their understanding, reactions into any interdisciplinary inquiry projects, blog posts, short video clips, etc.

Are you in favor of sourcing our drinking water from Fraser River in the future?

<https://www.cbc.ca/news/canada/british-columbia/fraser-river-as-water-source-for-metro-vancouver-1.3583733>

References:

https://edu.google.com/products/vr-ar/expeditions/?modal_active=none

https://www.youtube.com/watch?v=YCMN6eSMe_E

<http://www.metrovancouver.org/services/water/Pages/default.aspx>

https://www3.epa.gov/region1/eco/drinkwater/your_drinkwater_source.html

<https://www.cbc.ca/news/canada/british-columbia/fraser-river-as-water-source-for-metro-vancouver-1.3583733>