



Exploring Climate Change Impacts in Australia

Learning Area

Geography

Year Level

Year 5 / Year 10

Introduction

In this lesson, students will investigate how climate change affects Australian environments. Using immersive technologies such as Google Earth VR, the "Meet your carbon footprint" video, and Voices for Change AR/VR experiences, students will explore the causes, consequences, and mitigation strategies related to climate change impacts in Australia.

Application

[Google Earth VR](#)

Google Earth VR provides immersive global exploration with high-res 3D models, aerial views, and underwater adventures. It offers guided tours, Street View, and save/share options.




Lesson Overview

Lesson Objectives

- Investigate the impacts of climate change on Australian environments.
- Analyse the causes and consequences of climate change on ecosystems and communities in Australia.
- Evaluate strategies for mitigating climate change impacts and

VR/AR Resources

-  [Virtual Reality/360 video: Meet...](#) (4:47)
- [Voices for Change](#)
- [Canva](#)



promoting environmental resilience in Australia.

Lesson Outline



Before the Immersive Learning Journey

- Teachers and students should familiarise themselves with the IMVR experience using the [Google Earth VR Essential Guide](#).
- Teachers should preview the VR videos and ensure they meet the needs of their students and context.
- Introduce students to climate change concepts, including greenhouse gases, carbon footprints, and the specific impacts on Australian environments.
- Ensure access to Google Earth VR, the "Meet your carbon footprint" video, and Voices for Change AR/VR experiences for immersive learning.



During the Immersive Learning Journey

IMVR Station: Students explore Australian landscapes affected by climate change using Google Earth VR. They identify regions vulnerable to environmental changes and examine impacts on biodiversity.

HHVR Station: Students watch the 360° experience to understand the human impact on climate change and the implications for Australia. Students can then use a [Carbon Footprint Calculator](#) to measure their footprint and reflect on how they can make 1-2 small changes to reduce this.

Explore Station: Students engage with [Voices for Change](#) on laptops to explore localised climate change impacts and adaptation strategies relevant to Australian environments.

Creation Station: Students create projects (e.g., infographics, presentations, 3D worlds) illustrating the impacts of climate change on Australian ecosystems and propose adaptive strategies for resilience using Canva or CoSpaces.



After the Immersive Learning Journey

Facilitate discussions or reflections to assess students' understanding of climate change impacts specific to Australia.

Discussion questions:

1. How does climate change affect Australian ecosystems and biodiversity?
2. What are effective strategies for mitigating climate change impacts in different regions of Australia?
3. How can individuals and communities contribute to enhancing environmental resilience against climate change in Australia?

Collaborate on a community action plan proposing local initiatives to mitigate climate change effects on Australian environments.