Producers, Consumers, Decomposers

Learning Area
Science

Year Level
Year 4

Introduction

In this lesson, students will dive into the depths of the ocean using immersive virtual reality to explore marine ecosystems and understand the roles of producers, consumers, and decomposers within a habitat. Through interactive experiences and creative projects, students will engage in a hands-on approach to learning about food chains and the intricate balance of life in underwater environments.

Application

Ocean Rift

Ocean Rift transports students into various underwater environments where they can explore diverse marine life, such as dolphins, sharks, and even underwater volcanoes. This experience will be used to study specific marine animals, focusing on their habitat, and determining their roles as producers, consumers, or decomposers.

Lesson Overview

Lesson Objectives

- Understand the roles of producers, consumers, and decomposers in an ecosystem.
- Identify and explain how food chains represent feeding relationships in marine environments.
- Develop a 3D environment that

VR/AR Resources on CoSpaces

- **Producers, Consumers, or Decomposers CoSace**

- **Ecosystem on Google Arts and Culture**

demonstrates students' understanding of food chains using CoSpaces.

Lesson Outline

Before the Immersive Learning Journey

- Teachers and students should familiarise themselves with the IMVR experience using the Ocean Rift Essential Guide.
- Students should be familiar with CoSpaces creation. If not, assign students some tutorials, found on CoSpaces.io.
- Ensure students have been introduced to the concepts of food chains, producers, consumers, and decomposers.
- Teachers can also provide desired sources (age appropriate websites, articles, books, ect) to help student's understanding in the HHVR station.

During the Immersive Learning Journey

IMVR Station: Students will choose a marine animal to study in Ocean Rift. They will observe the animal's habitat, note key elements of the environment, and decide whether their chosen animal is a producer, consumer, or decomposer. Their peers will scribe their notes on their behalf.

HHVR Stations: Students will interact with the Producers, Consumers, or Decomposers CoSpace using AR, VR with HHVR headsets or on their laptops. They will answer the following:

- What is the definition of a producer, consumer, and decomposer?
- How do they each contribute to the survival of other organisms?
- Can you think of 3-5 producers, consumers, and decomposers?
- What do you think would happen if we didn't have decomposers in life?
- How do consumers depend on producers for survival?

Students can also read/view Ecosystem on Google Arts and Culture to gain a better understanding on how producers, consumers, and decomposers work together in an ecosystem.

Creation Station: Students will use CoSpaces to create a 3D environment that explains their understanding of producers, consumers, and decomposers. They will create a scene for the animal they studied in Ocean Rift and include information on them as a consumer, including their food chain, and any details about their habitats.

After the Immersive Learning Journey

Discussion and Reflection:

1. What did you observe about the habitats in Ocean Rift?
2. How does your chosen animal interact with its environment?
3. What are the key differences between producers, consumers, and decomposers that you noticed?
4. How does the food chain ensure balance in an ecosystem?

*Teachers may need to provide a second lesson for students to complete their CoSpaces before sharing their learning with the class.