

OCEAN RIFT

Exploring the world's first VR aquatic safari park

BC Curriculum Connection: Science, Outdoor Education (Grade 4)

- All living things sense and respond to their environment.
- Features and characteristics of animals.

Learning Goal: To identify and learn about different species of marine animals

Classroom Set-up: HMD for each student in the classroom: Set-up in a big grass field or a large space such as a gym as this experience requires audio and it will play directly from the headset.

Headset: Oculus Quest 2

Application: [Ocean Rift on Oculus Quest 2 | Oculus](#)



Before diving into Ocean Rift

Learners have explored biomes and the elements that make each type unique. This game offers an audio tour to educate students about different marine animals as they discover them. This experience will give the students a visual understanding of these marine animals' behaviours, features, and their marine ecosystem habitats. To set up the space and safely prepare students, refer to the [Get Ready](#) section.

Suggested Schedule:

Below is a suggested schedule for this experience. Allow 30 minutes for the experience, 10 minutes before and after the activity for set-up and clean-up, and 35 minutes for the learning engagement and reflection.

Session	Students	Teacher
9:05- 9:15	Actively Listening for Instructions	Explain set-up, safety, and activity Distribute headsets and conduct demonstration for proper use and access to program
9:15 - 9:45	All students: Seated Students begin simulation	Teacher: Roaming Assist with any technical difficulties and monitor behaviours
9:45 - 9:55	Clean-up Time: Sanitize and put equipment away	
9:55 - 10:30	Complete Activity	Engage students in learning activity about VR experience and self-reflection
10:30 - 10:45	Recess	



Immersive Experience

Step 1: Each student will need to find their own 1.5 x 1.5m space in an open area (eg. grass field) or enclosed area (eg. gym). Once they have found their spot, ask them to sit down as this is a stationary experience.

Step 2: When the experience starts, students will find themselves under water with a menu in front of them. Click on “controls” first to learn how to navigate through the water and how to use their flashlight for deep sea exploration. Then, click on a marine animal from the menu to get started.



Step 3: Students will need to swim and propel themselves around in order to discover different marine animals.

Step 4: Students can interact with the animals and swim right alongside them. Clicking on the light blue icons of marine animals will provide students information about that specific marine animal.



Step 5: Explore! Set a timer for 25-30 minutes and challenge students to find all of the marine animals on the menu page. Call out/signal to students when there are only 5 minutes left to help them prepare to leave the activity.



After VR Experience

Learning Experience Reflection

Student Self-Reflection

- Engage students in a discussion to explore their experiences and learning from this activity. Ask some of the following questions:
 - Which 3 animals did you learn about?
 - What did you find interesting about these animals? Why?
 - What elements or types of marine life would you like to explore next?
- Teachers can ask students to reflect on their VR experience by completing a [student questionnaire](#).

Teacher Self- Reflection

- Teachers are encouraged to answer [teacher self-reflection questions](#) that they feel are relevant to their learning goals. To help build our community, teachers can share their self-reflection by leaving a comment on the different sections found on our [Discussion](#) page.
- Teachers are encouraged to share their experience and perspectives of this program by commenting on the application post for [Ocean Rift](#).

Assessment for Students' Post-Experience

Quiz for Students' Post-Experience

To determine students' learning from the experience, provide the following quiz. Encourage students to elaborate in their descriptions.

1. List all the marine animals you encountered from the ones that live in shallow waters to the ones that live in the deep sea.

Shallow Water	Deep Sea

2. What are some different ways that marine animals communicate? Provide an example.
3. Name a marine animal you found interesting. What are 3 facts that you learned about this animal? (Their diet, habitat, size, region, social behaviors, etc.)
4. Match the term to the description:

Name	Description
Bioluminescence	production of light by marine animals where sunlight does not reach
Habitat	A species that is at risk of extinction
Diet	A place where an organism or a community of organisms lives, including the abiotic and biotic factors of the environment.
Endangered	The food and drink consumed by an organism or a group of organisms.

Rubric for Student Learning

Note for Educators: This rubric is following the new BC curriculum assessment plan:

Extending: The student can advocate for how they have surpassed the learning expectations with extensions or work quality above grade level

Proficient: The student can successfully accomplish the task independently at grade level

Approaching: The student can successfully accomplish the task with some support at grade level

Developing: The student requires significant support to accomplish the task

Note for Student: If you believe your learning is *Extending*, fill in the column with how you went beyond the expectations of this assignment. For example: I can make strong connections between animals, I can reference additional learning about marine animals, etc.

Criteria	Developing	Approaching	Proficient	Extending
Identify and Describe Animals	I need support to remember and describe the animals I learned about	I can describe some of the animals I learned about	I can describe the animals I learned about	
Adaptation to the Environment	I need support to explain how marine animals adapt to their surroundings	I can explain how some marine animals adapt to their surroundings	I can explain how marine animals adapt to their surroundings	
Roles in the Ecosystem	I need support to understand how marine animals play a role in the ecosystem	I can explain how some animals play a role in the ecosystem	I can explain how each animal plays a role in the ecosystem	
Justifying Answers	With support to recall the VR experience, I can add details to support my answers	My answers show some details of examples from the VR experience	My answers are detailed with examples from the VR experience	