

Teacher's Corner

OceanQuest is an interactive ocean science resource. Five real time video cameras placed on Race Rocks (<http://www.racerocks.com>) near the shores of Victoria, British Columbia allow the viewer to not only observe wild marine life in their natural environment, but to create a sighting marker on the area map and database. At the same time as the animal sighting is logged weather information is automatically recorded and the data becomes accessible to students and teachers to use. Individual comments on animal behaviour can also be included in the sighting log. The tool that allows the viewer to collect and manage this information is called GIS. Steps to use the GIS tool are explained in the "Using GIS (pdf)" document included in the archive file you downloaded.

The interactive camera and GIS tool are used in four student activities. The purpose of these activities is to:

1. Identify animal species using taxonomy keys provided
2. Graphing Temperature to relate environmental conditions to animal sightings
3. Interpret graphs using abiotic weather information
4. Relate animal behaviour to environmental conditions

OceanQuest uses the Race Rocks web site, an extensive resource that teachers may wish to use to tailor activities for their own classroom Race Rocks is a site created by Garry Fletcher of Lester B Pearson College (<http://www.pearsoncollege.ca/>), an International Baccalaureate College located about 25 km west of Victoria and within 5 km of the Race Rocks Marine Ecological Reserve.

In the Teacher's Corner site you will information on:

1. About the Teacher's Corner
2. OceanQuest's compatibility to B.C Science Curricula
3. Teacher Preparation for the student activities
4. Teacher's Guides to facilitate each of the student activities
5. Another link to the "Using GIS" pdf document

Curricula Considerations

OceanQuest is designed to be compatible with the B.C. Science Curriculum for grade eight science students. There are also many resources in this site that correlate to the B.C. Biology 11 Curriculum. Biology 11 resources on this site can be accessed at <http://www.racerocks.com/racerock/education/curricula/bc11bio/bc11bio.htm>

GRADE 8 SCIENCE PLOs	OCEANQUEST ACTIVITY
PROCESSES OF SCIENCE	
A3 Represent and Interpret information in graphic form	Temperature Barometric Pressure
A8 Demonstrate competence in the use of technologies specific to investigative procedures	All activities
EARTH AND SPACE: WATER SYSTEMS ON EARTH	
D1 Explain the significance of salinity and temperature in the world's oceans	Temperature Barometric Pressure
D3 Describe factors that affect productivity and species distribution in aquatic environments	All activities

Teacher Preparation for Student Activities

A high speed Internet connection and an LCD projector will allow a class of students to observe the animals in real time, discuss and or brainstorm prior to the activities. This is a great way to introduce the activity and instruct the students on how to navigate the site as well as how to access references and use the GIS Tool.

Following the introductory instruction students will need to work independently or in small groups using OceanQuest to complete an activity. Each of the four activities can be completed in one average class period of 45 to 60 minutes. Teachers can use the activities in any order.

The animals that are easily visible vary but typically seals, sea lions, and marine birds are sighted daily. The tide pool camera shows many sea anemonies and mollusks. For a list of the animals frequently sighted at Race Rocks, go to <http://www.racerocks.com/racerock/education/curricula/projects/top19.htm>

As well as the live camera there is an excellent photo gallery (<http://www.racerocks.com/racerock/archives.htm>) for animals at Race Rocks. Reference information for each animal is located in the Taxonomy link as well as using the search function.

To access all major reference material, biotic and abiotic on the Race Rocks site in a glance, go to <http://www.racerocks.com/racerock/eco/ecobiotic.htm>

For each of the student activities a template for recording information and answering questions is available and has been included in the archive file.