

<b>THEME:</b>	<b>Watershed</b>
<b>SCOPE &amp; SEQUENCE UNIT:</b>	<b>Seaquaria</b>
<b>OBJECTIVE:</b>	<b>It's all connected: the creeks and rivers lea to the ocean</b>
<b>ACTIVITY:</b>	<b>Seaquaria in the school (saltwater aquarium)</b>

<b>Notes:</b>	Whole school activity
<b>Teacher Prep.:</b>	<p>This activity is year long and involves setting up a Seaquaria in the school. (<a href="http://www.worldfish.org/seaquaria.htm">www.worldfish.org/seaquaria.htm</a>) It requires funding to acquire a Seaquaria (~\$4500), and receive the associated training in maintaining the tank and the marine life as well as training in curriculum.</p> <p>It is equally possible to set up a salt water tank and inhabit it with sea life, quite separate from Seaquaria. (see Green Teacher for some articles about such, <a href="http://www.greenteacher.com/">www.greenteacher.com/</a>)</p>
<b>Time:</b>	Ongoing wonder and observation opportunities; specific activities are outlined in the Seaquaria Manual.

### **Skills:**

- ◆ Ecological literacy
- ◆ Collaboration, teamwork, leadership
- ◆ Critical and creative thinking

### **Objectives:**

- ◆ To offer an awesome display of live sea life, close-up, in a tank within the school, throughout the school year
- ◆ To use this living resource for extended lessons in marine life, and life in water
- ◆ To make a connection with life below the tides, and develop empathy and compassion, and responsibility for their care

### **Background Information:**

The learning possibilities are limitless with the salt water tank that Seaquaria provides. All ages are drawn to the tank to see what's happening inside. Placing it at eye level for young students increases their access to observing the sea life.

**Resources:**

**Seaquaria in Schools**

**<http://www.worldfish.org/seaquaria.htm>**

**Seaquaria in Schools Poster**

# Seaquaria in Schools:

## A Novel Cornerstone to Integrated Learning

[www.worldfish.org/seaquaria.htm](http://www.worldfish.org/seaquaria.htm)



"I have reached the students more deeply and successfully than ever before." - Lori Burley, Vic West Elementary



### Overview:

"Seaquaria in Schools" is a non-profit program whose goal is to stimulate integrated marine and ecosystem education in our schools and communities. Age specific programs are developed through partnerships and collaboration. They target students of all ages, address many learning styles, extend learning to the real world and provide increased leadership opportunities. A variety of programs specific to elementary, middle and secondary schools have been developed.



### Seaquaria Key Processes:

- Participative learning: students and teachers learning together
- Teachers modeling learning processes
- Peer-teaching
- Research & enquiry vs. Rote learning
- Interdisciplinary and integrated learning
- Fostering positive school-wide learning atmosphere
- Building linkages to local field, environmental and community programs

### Description:

The Seaquaria in Schools program places aquaria in schools and brings captivating, ever-changing marine ecosystems into the students' everyday lives. These help focus, deliver and integrate a variety of cross-curricular and outreach materials. As students care for their ecosystems and participate in hands-on activities, they build an understanding and respect for the organisms and develop integrated stewardship skills. In the process, the aquaria are very effective in fostering a passion for learning and critical thinking in many other areas of endeavour.



### Results:

#### Elementary & Middle School

- 80-90% of Prescribed Learning Outcomes (all subject areas)
- Engage vulnerable students in learning
- Calming effect for students with challenging behaviours

#### High School

- up to 90% PLOs in select subject areas

#### Field Activities

- Improved effectiveness

#### Communities

- increased public awareness



"having the aquarium at our school allowed students to SEE what they were hearing about in other programs...ask questions, look for more information and to want to learn..." - teacher, Vic West Elementary



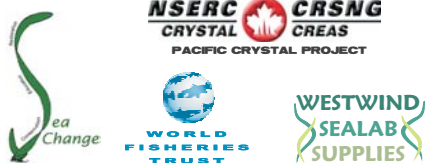
### Seaquaria foster:

- Passion for learning
- Capacity to make informed decisions
- Respect for the environment and its inhabitants



### Seaquaria create "emotional hooks" for learning:

- Sense of "home" - Local context
- Personal connection - interactive, living, touchable
- Possibility of unknown - Novelty and Complexity
- Self-esteem - Possibility of having special knowledge
- Manageable - not too big and scary



### Funding from:



### Other Development Partners

Teachers, students, and Parent Advisory Councils,  
BC School Districts 28, 36, 45, 61, 62, 63, 64, 68, 79  
Stream Team  
Watership Foundation

Fisheries and Oceans Canada  
University of Victoria  
Archipelago Marine Research

Photo captions (clockwise from top left):  
Vic West Elementary School Seaquarium, Pacific Salmon Foundation dinner, University of Victoria, 2004; Landsdowne Middle School beach study post; Vic West, Vic West Y, 2006; California sea cucumber in Seaquarium, Oceans Day, Royal Roads University College; Vic West, Vic West Y, 2005; Pleasant Valley Elementary school Seaquarium (photo W. Carolsfeld); Water in City Conference, Victoria, 2006; Landsdowne Middle School beach study at Cattle Point, Victoria; Water in City Conference, Victoria, 2006; Esquimalt High School at Gorge Restoration Site, Victoria, BC (all photos C. Carolsfeld unless otherwise indicated).

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