

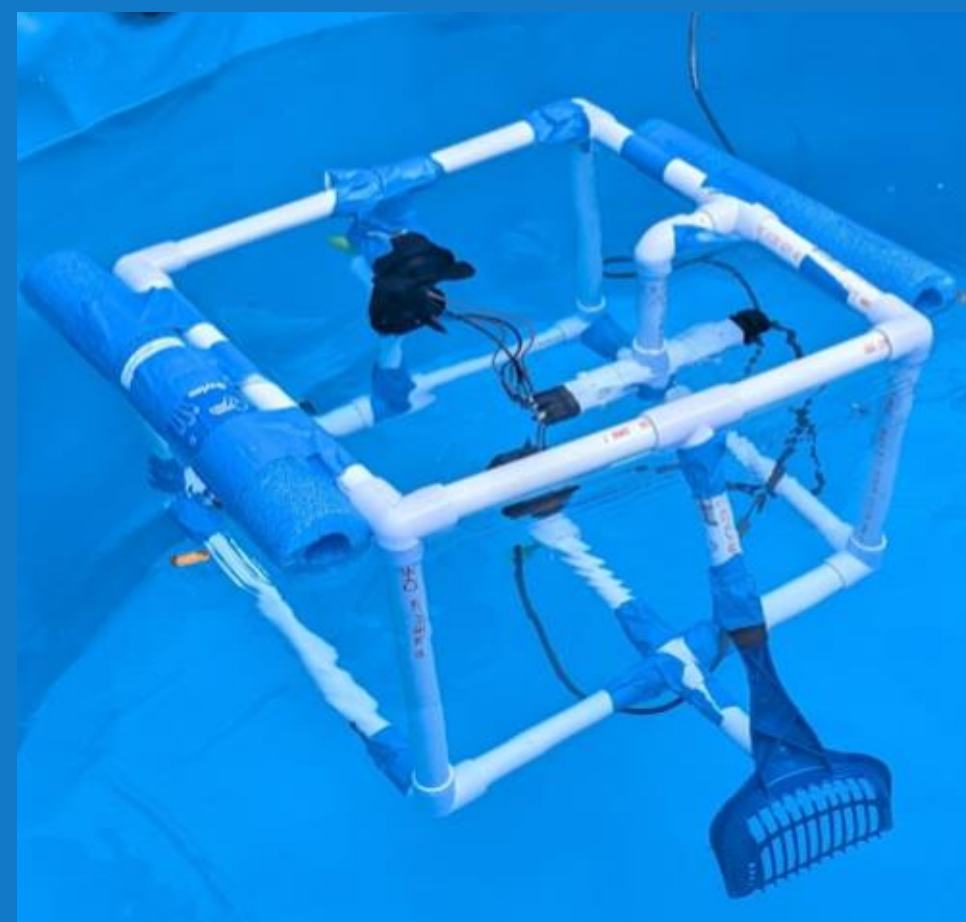
*Explore the Salish Sea* is a curriculum developed by SeaDoc Society based on the award-winning book, *Explore the Salish Sea: A Nature Guide for Kids*. Each lesson braids together Western and Indigenous knowledge to help students investigate their local ecosystem and tak action as stewards of the Salish Sea.

The unit of focus, Ocean Tech, engages students in learning about Indigenous engineering since time immemorial, as well as the recent revival of clam gardens locally by the Swinomish.

Learn more about clam gardening by the Swinomish here:



Students examine how remotely operated vehicles (ROVs) are being used in research by Indigenous and Western scientists. Students then engineer an ROV that can be used to explore under the water, sample water quality, clean up ocean trash and more.



PI: Deborah Hanuscin | CoPI: Josie Melton | Postdoc: Sarah Voss

How does teachers' capacity to adapt curriculum and instructional approaches to meet standards and the needs of diverse student populations develop through initial practice and successive enactments of curriculum materials?

#### Four Successive Enactments of Curriculum Materials

Practicum-Based  
Professional  
Learning  
Experience with  
Youth

Academic Year 1  
Classroom  
Teaching

Practicum-Based  
Professional  
Learning  
Experience with  
Youth

Academic Year 2  
Classroom  
Teaching

**Curriculum-context knowledge (CCK)** (Chopin, 2009) is knowledge of how a particular set of curriculum materials functions to engage students in a particular context. CCK is evident in the ways teachers adapt curriculum over time, and how they relate their reflection on their curriculum enactment to subsequent adaptations. This perspective allows researchers to explore not only how and why teachers adapt curriculum, which is the primary focus of many studies, but also how their adaptations change over time as they learn to enact new curricula.

#### Learned adaptations (Choppin 2009; 2011):

- A teacher connects evaluation of prior enactment with rationale for subsequent adaptations
- A teacher changes use of curriculum materials to better achieve original goal
- A teacher changes use of curriculum materials in a way that increased students' opportunity to learn
- A teacher expresses new conceptions of science, teaching, learning, or curriculum as a result of successive adaptations

#### Culturally Responsive adaptations:

- The teacher draws on specific knowledge of students and their identities/cultures (Gonzalez, Moll, & Amanti, 2005)
- The teacher's actions affirm and value the cultural and linguistic backgrounds of students (Gay, 2010)
- The adaptation to curriculum and instruction lead to greater instructional congruence between students' culture and learning (Luykx & Lee, 2007)



This material is based upon work supported by the National Science Foundation under grant No. DRL 2300558. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

For more information about our project, visit our website:

