Experiencing, Exploring, and Investigating Estuaries

Estuarine Edification: Activating Learning Waves for Socioeconomic Change

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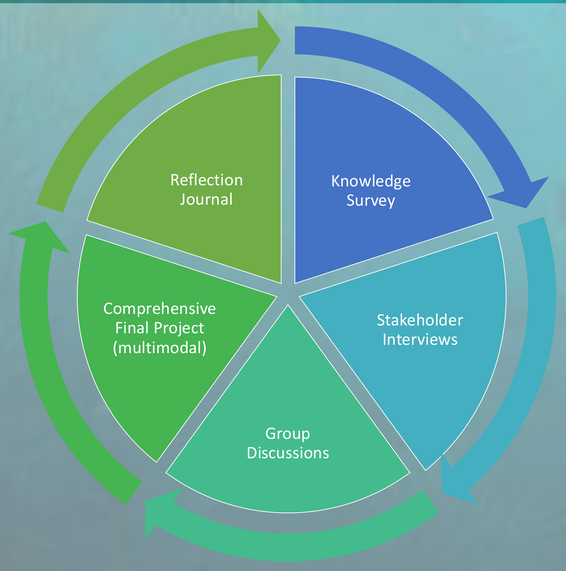
Nestled where rivers meet the sea, estuaries are rich ecosystems that foster biodiversity, providing a safe haven and protective nursery for small fish, migrating birds, and coastal organisms. Estuaries maintain water quality through natural filtration and buffer against tidal surges and floods, protecting upland areas and communities from the impacts of climate change and sea level rise. These dynamic and abundant ecosystems provide invaluable services to both nature and humanity alike.

Underlying Values

1. Meaningful relationships enrich learning experiences
2. Foster learning environments where every individual feels valued, respected, and appreciated for their unique contributions and perspectives
3. Experiential learning emphasizing holistic comprehension
4. Cultivation of growth mindset, encouraging students to embrace challenges and strive for improvement
5. The path of learning is not uniform and learning knows no bounds and transcends time and space

Assessment Strategies



Student Learning Outcomes

1. Given a place-based educational experience, students will develop a deep and holistic understanding of the inherent ecological and societal values of estuaries. Students will be able to articulate the cultural, regulating, and provisioning services of estuaries.
2. Given an active learning environment and supportive, diverse teams, students will collaborate to investigate the intricate relationships between ecosystems, western and tribal management approaches, and the interplay with society, to deepen their knowledge and understanding of estuaries.
3. Through participating in a team-based inquiry learning modality, students will be able to articulate the challenges of balancing the aforementioned components of ecosystem management in a manner that demonstrates they are aware of the multifaceted stakeholders invested.
4. Through inquiry-based learning, students will investigate a physicochemical scientific question by applying the scientific method to conduct a research project and apply oral and written communication skills to assess, evaluate and summarize scientific findings relevant to contemporary topics/issues.
5. Students will develop oral and written communication skills necessary to present findings to both peers and experts.

Pedagogy

- Place-based Learning
- Flipped Classroom
- Expert Consultation
- Case studies

Padilla Bay National Estuarine Research Reserve