

Instructions and outline for TIDES curriculum reviewers

November 10, 2007

Thank you for your willingness to review and comment on the new TIDES curriculum being developed by South Slough National Estuarine Research Reserve. The development of this project has been a long and slow process! However, we are finally beginning to put some ideas into practice that have been needed to address various opportunities and challenges presented by the current educational environment.

You will notice that the age range identified for this curriculum is 6th to 8th grade. However, the approach for the units incorporates a framework which has been useful with both middle school and high school audiences in our experience at South Slough. In addition, since limited resources exist to conduct needs assessments, support professional curriculum development, field test and evaluate curricula, we are seeking to discover how we might use this model to reach a broad audience of both middle and high school aged students. Your feedback in this area will be particularly helpful.

So what exactly is TIDES?

Intent and Design of the TIDES curriculum

The TIDES curriculum consists of 14 distinct units to assist middle school (grades 6-8) students and teachers in the investigation and discovery of estuaries and their connection to watersheds and the ocean. Components consist of an *Activity Guide*, *Explorer kits*, *Estuary study backpacks*, and a variety of background resources.

The TIDES curriculum is designed to encourage classes to explore the rich and diverse estuaries of Oregon and Northern California (the lower Columbian bio-geographic region), to understand the importance of these extremely productive and highly impacted ecosystems, and to share their findings with South Slough and their community.

The activities and resources have been developed through many years of effort at the South Slough National Estuarine Research Reserve and working in partnership with other agencies and institutions. The assemblage has been designed primarily to be most useful as a sequential series which builds on fundamental concepts established in the primary chapters. While the primary scope has been developed to be useful in classrooms teaching the Natural and Physical Sciences, many occasions for use by interdisciplinary teams of teachers have also been incorporated to include skills in English, Mathematics, Social Studies and the Arts.

The classroom activities are designed to “stand-alone” without the support of a field experience; however there is no replacement for first-hand contact when exploring habitats such as tidal flats and marshes. Therefore, a field experience is strongly encouraged.

Field experiences are perhaps the most difficult element of the curriculum to integrate and offer to students because, just as in the world of scientific research, field time is expensive! Logistics can be very challenging, funding difficult to come by and administrative approval and support is, at times, hard to negotiate. However, the field experience is a very powerful one with proper preparation and can be one of the most potent learning opportunities in a student's career.

Because learning styles vary from student to student, the TIDES curriculum is designed to recognize that the classroom instructor faces a challenging job in providing meaningful educational experiences for all the students of a given class. Attempts have been made to incorporate a variety of styles into each activity as appropriate.

Instructions for review

This review constitutes the first time that professional educators have been asked to provide feedback on the TIDES curriculum in a formal, written fashion. Information from this formative evaluation will be used to improve the activities, address gaps, make corrections, and create a curriculum that can be practically field tested and further refined. The goal of this project is to develop a set of activities and resources that is useful to and used by classroom teachers and their students to further their understanding of estuaries and related coastal environments.

While South Slough NERR is the 4,800 acre protected natural area where we perform our core mission of “furthering our understanding of estuaries and their watersheds”, there is much to be learned about the estuaries throughout our bio-region. As pressures and changes along Oregon’s coast occur, these activities are an attempt to bring greater understanding to our students through engaging observations and interactions with these fascinating environments.

The review documents consist of two parts:

1. Reviewer cover sheet
2. Individual activity review sheets

Please complete one cover sheet and as many individual activity review sheets as are necessary for the activities you are able to review. I have assigned 3 specific activities to each of you to completely cover the 14 activities included in TIDES. If you wish to provide reviews for more than the initial 3 assigned activities, I will be extremely grateful, but this is not an expectation! While I am hoping to receive your feedback before the end of December, I recognize that I may need to be flexible with this expectation.

As I said in my original solicitation for your involvement, I can offer neither silver nor gold, and while chocolate may be within the realm of possibilities, even that requires some special maneuvers. So while I may not be able to pay you for your involvement, I can offer that South Slough education staff will do everything we can to provide meaningful and timely assistance as you and your classes study estuaries!

Please let me know if you have any questions, concerns, or ideas regarding this project.

Sincerely yours,

Tom Gaskill
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South Slough National Estuarine Research Reserve