

<p>Name: Andrea Gardner School: Grade Level: 4th Grade</p>	<p>Date: (varies) Duration: 1 – 2 lessons Lesson title: Ecosystems,</p>
<p>Classroom/Student Characteristics: 28 students, 17 boys and 11 girls. This class is comprised of all 4th graders. The students represent an ethnically diverse population. There are no ELL students. One student, Jack, has an IEP for a developmental disorder, autism. He and another, Jae, have behavior plans that require close monitoring and special attention. Lu is a new student, who was homeschooled, and it is unclear if he is dyslexic or has not yet learned to read and write.</p> <p>Student desks are in pairs and are set up in rows facing the front of the classroom. The students are learning the rules, routines and how to work together efficiently and successfully.</p>	<p>Accommodations and Modifications: JH/JK: Check in after the assignment is given and independent work begins in order to make sure they understand what is going on and what is expected. If applicable, sit in close proximity in order to be able to communicate easily. Any handouts or examples specific to the assignments/lesson will be given to these two students in order to make the information readily available (when applicable).</p> <p>Specifically for JK, who is autistic: advanced warning of any changes in the schedule or planned activities, multiple check-ins throughout the course of the lesson, and increased positive reinforcement.</p> <p>LG: new student who was homeschooled until now and is not reading or writing at a measurable level. It is undetermined what his level of understanding of reading and writing is. Test results are coming soon. He is dyslexic.</p> <p>In the mean time, he will be given electronic books to listen to and follow along with on the iPad. During lessons where this is not an option, he will work with a partner, the teacher or in a small group. For testing/assessment, the teacher will verbally give him the test and write his responses. He understands that he is expected to participate in conversations and group work to the best of his ability.</p> <p>to copy onto the cards in order to give him practice writing.</p>
<p>Rationale: Objective: Having read about the Puget Sound, an ecosystem in danger, the students now use role playing to examine the Sound from different points of view (connect to the prior learning of the Bud, Not Buddy literacy unit): the ordinary citizen, recreational boater, land developer, dairy farmer, and the fisherman. By completing a problem-solving sheet, student groups analyze the Sound's problems from one of these perspectives, propose solutions, and identify trade-off's involved in such solutions.</p>	

<p>Equity and learning community.</p> <ul style="list-style-type: none"> • Students work in groups to define a problem from different points of view. • Students identify possible solutions to pollution problems • Students define the term “trade-off” and identify the trade-offs involved in specific solutions. 	
<p>Lesson Targets:</p> <p>I can. . .</p> <p>Determine the effect my group has on the Puget Sound</p> <p>Explain the tradeoffs that my group has to deal with in order to benefit Puget Sound.</p>	<p>Standards—WA State Standards:</p> <p>EALR 4: Life Science; Ecosystems, food webs</p> <p>4-5 LS2F People affect <i>ecosystems</i> both positively and negatively.</p>
<p>Assessment:</p> <p>Summative: Group worksheet and the final presentations.</p>	
<p>Academic Language Targets:</p> <p>Form: <i>What are students doing with language to express their developing understanding of the content you are teaching?</i></p> <p>The students are reading articles from different points of view in order to see the impact of each person on the Puget Sound. The students are discussing, writing, and presenting their findings during the course of the lesson. To express their understanding, the students are working together to complete the worksheet.</p> <p>Fluency: <i>What words and phrases do students need in order to express their understanding of content you are teaching?</i></p> <p>Point of View: (connection to prior knowledge), the particular perspective on a subject</p> <p>Trade-off: When we give up one thing to receive another.</p> <p>Ecosystem: a localized group of interdependent organisms together with the environment that they inhabit and depend on</p> <p>Function: <i>What opportunities will be provided for students to practice the new language and develop fluency, both written and oral?</i></p> <p>In groups, the students will be analyzing the point of view writings on the worksheet. Because this is a group activity, the students will be writing and discussing the targets.</p> <p>During the final presentation (part 2 of this lesson) students will have the opportunity to present their findings and use the academic language in doing so.</p>	
<p>Materials and Technology Needed:</p> <p>1 point of view sheet for each student</p> <p>1 record sheet: Problem-Solving worksheet for each team</p>	<p>Classroom Management:</p> <p>Behavior expectations & learning targets will be stated at the beginning of the lesson:</p>

<p>1 sheet of newsprint (or space on the board) for each team</p>	<ul style="list-style-type: none"> • The students will follow regular classroom norms, which include respecting themselves, others, and the tools and materials being used. • Raise your hands to answer questions • Turn and Talks will be quiet and respectful and will end when the teacher rings the bell. • The teacher will be available for questions after an initial circulation to ensure that all students have the materials and books necessary for completion.
<p>Instructional Plan:</p> <ul style="list-style-type: none"> • Pre-Lesson Preparation – Divide the classroom into five teams of 4-6 students. Assign each group a point of view to represent: ordinary citizen, dairy farmer, recreational boater, land developer, fisherman. Duplicate 4-6 copies of each point of view sheet. Review Record Sheet: Problem-Solving Sheet. Duplicate one sheet per group. • Motivational: -- Ask the class to identify the key points in the reading selection on the Puget Sound. Encourage students to share a fact they learned from the reading and/or the three for three game. • Introduction:— Ask a student to read the trade-off paragraphs. Ask students to identify examples from daily living that illustrate trade-offs. <p>Distribute the point of view sheets and explain how the sheets will be used. Allow students time to read the sheets.</p> <p>After reading, have the groups meet and discuss their particular view of the Sound's environmental problems. As they meet, they need to consider these topics:</p> <ol style="list-style-type: none"> 1. From your group's point of view, what are the main environmental problems? How do you contribute to these problems? 2. What could your group do to help solve the environmental problems in the Sound? Think of as many solutions as you can. 3. Think about what your group gets from the Sound. Some of the solutions might require your group to give up something. But other groups and the Sound might benefit. This is a trade-off for each solution your group proposes, discuss the trade-offs. <ul style="list-style-type: none"> • Teacher Input/Modeling: – Distribute the record sheet to each group and go over it with the class. Emphasize that students should use their own words to fill out the record sheet and not the words of the point of view sheets. • Independent Practice: -- The students will fill out the record sheet, one per group. <p>The students will present their findings. (NEXT LESSON)</p>	

- **Guiding Questions:**

1. From your group's point of view, what are the main environmental problems? How do you contribute to these problems?
2. What could your group do to help solve the environmental problems in the Sound? Think of as many solutions as you can.
3. Think about what your group gets from the Sound. Some of the solutions might require your group to give up something. But other groups and the Sound might benefit. This is a trade-off for each solution your group proposes, discuss the trade-offs.

- **Closure/student self-assessment (10 minutes before the end of the lesson)** (return to learning targets): Collect the record sheets to make certain that each group has identified the solutions and the trade-offs. Then redistribute the record sheets for the final activity.

Family Involvement Plan: Parents will be invited to “Enviro-night” to see what the students have been working on in science. This lesson is part of the larger eco-systems unit/kit that is provided by the school district.

TRADE-OFF

Everyone agrees that the Puget Sound has many problems. Most of them human-made. But depending on where they live and what they do, people who live, work, and play in the Chesapeake Bay watershed area see these problems from very different points of view. And what seems like a solution to one group may seem like a problem to another group. Let's look at the Sound's problems from several different points of view. Let's see if we can come up with some solutions.

We all know that solving problems requires making compromises that means we often need to give up one thing to receive another. This is called a trade-off. Both groups work together to do what is best. Depending on your point of view, you will find some solutions and trade-offs more difficult to live with than others. Each group will need to decide how it can best help the bay without giving up too much.