



Looking Forward (Learning Experience #2) Student Procedures



1. Your teacher has posted the essential question for *Looking Forward* (Learning Experience #2). Write a preliminary answer for the essential question in your journal, leaving extra space to review the question following the completion of this learning experience.
2. Your team should continue in the role of a parent committee of the elementary school in Ewell who wish to reduce the amount of flooding in the school and preserve the way of life on Smith Island for their children.
 - a. Predict what will happen to the island during the next century if no further action/ preventive measures are taken.
 - b. Write your prediction in your journal and support it with data and information from *Getting Your Feet Wet* (Learning Experience #1).
3. Governmental agencies and private organizations who may be interested in providing funds to preserve Smith Island will want to know what your committee plans to do with the funds you are requesting.
 - a. Before you apply for funding for your project, your team must research several possible techniques that are used for erosion control on coastlines and decide which one will be most appropriate for your particular island.
 - b. Complete the questions for *Saving Our Land* (Student Sheet #1) and write a reflection about what you have learned about coastline restoration in your journal.
4. Participate in a class discussion of the various techniques landowners use to control erosion along waterfront edges of coastline properties.
 - a. Which technique(s) seems to be the most effective in terms of cost and long-term prevention of erosion?
 - b. Are these techniques appropriate for prevention of erosion next to streams and lakes? Would they work where you live?
5. Review the factors which influence the flooding and loss of acreage on the islands and coastlines of the Chesapeake Bay (sea level rise and post-glacial land subsidence). Answer the following questions in your science journal and contribute your responses to a class list.
 - a. What do climate scientists and geologists say about human impacts on these phenomena?
 - b. Do human activities affect the rate at which either one is occurring? If so, what should we do to slow the rate at which we are losing coastal land?



6. Humans can do nothing to change the rate of land subsidence in the regions beyond the leading edges of the glaciers from the last ice age. However, the overwhelming majority of scientists think that human activities which result in release of greenhouse gases into the atmosphere are responsible for the alarming acceleration in the rate of global sea level rise during the past 150 years. Complete *Your Great Big Carbon Feet* (Student Sheet #2).
7. The earth's climate has changed throughout its existence. What is different today is the rate at which climate change is occurring across the globe. Work as a team to answer the questions on *What's Up in Your Backyard?* (Student Sheet #3).