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A main goal of mine is to show students that everyone can do science, that science can and should be understood by all citizens, and that there are benefits to thinking scientifically. In short, I stress science literacy in my geoscience courses. The purpose of this essay is to address the importance of community colleges in geoscience education. The link between community colleges and science literacy is this: stressing science literacy at community colleges will positively change the way science is viewed an integrated in U.S. politics and society. This bold statement reflects the fact that many adults will take their only post-secondary physical science at a community college. We should not underestimate the roles of community colleges in creating educated and engaged citizens.

I approach science literacy differently in the two courses I teach. The process of science is a focus in Earth Science, whereas the relevance and accessibility of science is stressed in my Physical Geology course.

The Earth Science course, a survey of geology, astronomy, meteorology and oceans and climate, is the preferred physical science course for students needing to fulfill the general education requirement. In this course, I explicitly teach the nature of science. First, students identify what they already know about science. During the first day of class, students are asked to identify whether or not a given question and answer are science (Question: How old is Earth? Answer: That provided by James Ussher). Students then work in groups to compose a definition of *science*. To provide a formal foundation, students read a chapter on nature of science published by the National Academy of Sciences which provides rigorous definitions of scientific terms, like *theory*, *law*, *observation*, *fact*, as well as providing examples (Ch. 3 Evolution and the Nature of Science, in *Teaching About Evolution and the Nature of Science*, National Academy Press 1998). Nature of science is applied throughout the semester. The first and last labs are full inquiry, in which students pick questions and find answers using self-devised hypotheses and experiments. The course content allows for several theories to be studied in light of the observations they explain and predictions they make. Specifically, students take detailed looks at plate tectonics and its explanations of earthquakes and landforms, and then use this knowledge to predict whether or not Venus, Mars and the Moon have plate tectonics. In astronomy, students predict how stars, the Sun and Moon should move in the sky based on the heliocentric theory, and then determine how the theory explains other observations, such as the phases of Venus and stellar parallax. Students even read excerpts from *Dialogue Concerning the Two Chief Systems* and interpret Galileo's logical arguments for the heliocentric theory and against the geocentric theory. In meteorology, students use weather observations to test the theory of pressure and winds, and then use pressure observations (isobars on weather maps) to predict wind directions and relative speeds, and to explain the present weather. Finally, after in depth coverage of these three theories students can analyze theories of atmospheric convection as well as the global warming hypothesis. Throughout the term, care is taken to use science terms, such as theory and observation, correctly and often.

Although nature of science topics are embedded in my Physical Geology course, they are not so explicitly addressed. Instead, the focus is on science relevance: how science (geology) is all around and accessible to us as well as the importance of geology to society. In order to stress the all-around-us nature of science, topics are presented in context. Reading assignments, photographs and/or maps impart information about places where geological processes act and the provided rock samples originate. Inquiry-based activities, often using physical models, allow investigation of geologic processes. Again, use of these models demonstrates how scientific questions can be answered with relatively simple and accessible tools, and stresses that anyone can do science. As an example, to study stream processes, students (a) read an excerpt from Mark Twain's *Life on the Mississippi*, (b) use stream tables to answer questions about stream evolution and factors that affect stream flow and erosion/deposition, and (c) use the stream table to model regional impacts of human changes to the Mississippi (e. g., local levee construction).

When I teach, I'm not out to covert majors, instead I aim to encourage future K-12 teachers to consider science as a focus and encourage all students to do science, especially with their children. Although I have no assessment data showing that the aforementioned teaching approaches improve students' understanding or liking of science, I do have antidotal evidence that students are relatively at ease with science and trust scientific results at the end of the semester. Ideally students will retain these positive views of science, share them with others, and help build tomorrow's scientifically literate populace.