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Increasing our understanding of how science really works

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“Most Americans do not understand the scientific process,” nor can they distinguish between science and non-science (National Science Board, 2006). Given the impact of science on society, the lack of public understanding of science should be a concern to us all. In large part, the current confusions about evolution, global warming, and other aspects of science are symptomatic of a general misunderstanding of what science is and what it is not. Too few of our citizens view science as a dynamic process through which we gain a reliable understanding of the natural world. As a result, the public becomes vulnerable to misinformation and the very real benefits of science become obscured. In response, an NSF- funded initiative has emerged to improve public understanding about how science really works, why it matters, and who scientists are. *Understanding Science*, a collaborative project developed by the UC Museum of Paleontology, serves to both inspire and engage students in the dynamic nature of science. The “scientific method” within our textbooks is an impoverished depiction that does little to promote scientific literacy. If we are aiming for a public capable of assessing conflicting representations of scientific evidence in the media, they must understand the strengths, limitations, and basic methods of the enterprise that has produced those claims. While many teachers recognize the weakness of the standard pedagogical approach to these fundamentals of science literacy, until now they lacked any comprehensive resource to help them strengthen their own knowledge and teaching.