



Engaging Students: Using Crosscutting Concepts to Prompt Student Sensemaking of Phenomena



Rodger Bybee

Rodger Bybee is executive director emeritus of the Biological Sciences Curriculum Study (BSCS), a non-profit organization that develops curriculum materials, provides professional development for the science education community, and conducts research and evaluation on curriculum reform. Prior to joining BSCS, he was executive director of the National Research Council's Center for Science, Mathematics, and Engineering Education (CSMEE) in Washington, DC. He participated in the development of the National Science Education Standards and, most recently, Dr. Bybee contributed to the Framework for K-12 Science Education and was on the leadership team that developed the Next Generation Science Standards (NGSS.) Dr. Bybee serves on a number of advisory boards and committees including those for The National Academies, U.S. Department of Education, National Science Foundation, Educational Testing Service, and the Program for International Student Assessment (PISA.) Dr. Bybee has written widely, publishing in both education and psychology including his most recent book *STEM Education: Now More than Ever*. Dr. Bybee has received a number of awards including the National Science Teachers Association's Distinguished Service to Science Education Award, the American Institute of Biological Science's Education Award and the Robert H. Carleton Award, NSTA's highest honor, for national leadership in science education.



Peter McLaren

Peter McLaren is the Executive Director of Next Gen Education, LLC and works as a consultant with states and districts in support of the implementation of the state science standards based on the Framework for K-12 Science Education (NRC, 2012). In his previous work, Mr. McLaren served in a number of roles in the area of science education policy including Director of the State and District Support for Science at Achieve Inc and as Science and Technology Specialist at the Rhode Island Department of Education. McLaren was a member of the national writing committee for the Next Generation Science Standards (NGSS). He has also served on a number of committees including the National Academy of Engineering's Guiding Implementation of K-12 Engineering Education committee, and the National Academy of



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Science's Committee for Developing Assessments for the Next Generation Science Standards (NRC, 2014) and was a contributor to the NRC publication Seeing Students LearnScience (NRC, 2017). An award-winning educator, McLaren was a teacher of science for 13 years at both the high-school and middle-school level. In 2001, he was recognized with the Milken Family Foundation National Educator Award and in 1995 as the Rhode Island Science Teacher of the Year.