

NATIONAL RESEARCH COUNCIL

OF THE NATIONAL ACADEMIES

DIVISION OF BEHAVIORAL AND SOCIAL SCIENCES AND EDUCATION

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National Research Council Review of the Next Generation Science Standards

In accordance with procedures approved by the Executive Office of the Division of Behavioral and Social Sciences and Education (DBASSE) at the National Research Council (NRC), the Next Generation Science Standards (NGSS) were reviewed in early 2013 by individuals chosen for their technical expertise and familiarity with the Research Council's 2011 report, *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (Framework)*. The purpose of the review was to evaluate whether the NGSS, as developed during a two year process by 26 lead states under the guidance of Achieve, Inc., remained consistent with the *Framework*, which was intended to provide the scientific consensus upon which to base new K-12 science standards. The developers of the NGSS used the *Framework* as the basis for their work in terms of developing both the structure and content of the standards. The NRC asked reviewers to direct their comments to three points:

- Are the NGSS consistent with the vision for K-12 science education presented in the *Framework*?
- To what extent do the NGSS follow the specific recommendations for standards developers put forward by the *Framework* committee (see Chapter 12 of the *Framework*)?
- For consistency with the *Framework*, are other changes needed?

The review process determined that the NGSS, released to the public in April of 2013 and published in this volume, are consistent with the content and structure of the *Framework*.

The following individuals participated in the review of the NGSS: Philip Bell, Professor of the Learning Sciences, The Geda and Phil Condit Professor of Science and Math Education, University of Washington; Rodolfo Dirzo, Bing Professor in Ecology, Department of Biology, Stanford University; Kenji Hakuta, Professor of Education, School of Education, Stanford University; Kim A. Kastens, Lamont Research Professor and Adjunct Full Professor, Lamont-Doherty Earth Observatory, Department of Earth and Environmental Sciences, Columbia University; Jonathan Osborne, Shiram Family Professor of Science Education, Graduate School of Education, Stanford University; Brian J. Reiser, Professor, Learning Sciences, School of Education and Social Policy, Northwestern University; Carl E. Wieman, Professor, Department of Physics, University of British Columbia; and Laress (Laurie) L. Wise, Principal Scientist, Education Policy Impact Center, HumRRO, Monterey, CA.

The review of the NGSS was overseen by Patricia Morison, Associate Executive Director for Reports and Communications for DBASSE, and Suzanne Wilson, member of the NRC Board on Science Education and Professor, Michigan State University. Appointed by the NRC, they were responsible for making certain that an independent examination of the NGSS was carried out in accordance with institutional procedures.

NOTE: The text above will appear in the front matter of the book form of the NGSS published by the National Academies Press. This book will be available in Summer 2013. Citation for the book is: NGSS Lead States. (2013). *Next Generation Science Standards: For States, By States*. Washington, DC: The National Academies Press. For more information see <http://www.nap.edu/NGSS/>