



YALE NATIONAL INITIATIVE

to strengthen teaching in public schools®

Curriculum Units by Fellows of the National Initiative
2005 Volume IV: Astronomy and Space Sciences

Preface

In April 2005 the Yale National Initiative to strengthen teaching in public schools accepted forty-six public school teachers from ten cities to participate in four National Seminars held at Yale. The Initiative is a long-term endeavor to establish exemplary Teachers Institutes in underserved school districts in states throughout the country. Following the approach developed in New Haven and demonstrated in Houston, Pittsburgh, and other cities, it builds upon the success of a four-year National Demonstration Project. Teachers Institutes are educational partnerships between universities and school districts designed to strengthen teaching and learning in a community's public schools. Evaluations have shown that the Institute approach promotes precisely those dimensions of teacher quality that improve student achievement.

Half of the forty-six teachers, designated Yale National Fellows, were from seven cities that are planning or exploring the establishment of a new Teachers Institute: Atlanta, Charlotte, Jacksonville, Philadelphia, Richmond, Santa Fe, and Wilmington. Other National Fellows were from Teachers Institutes that are members of the National Initiative League located in Houston, Pittsburgh, and New Haven. The Fellows attended an Organizational Session of the Seminars held in New Haven on May 6-7. The Seminars reconvened during a ten-day Intensive Session from July 5-15.

The Seminars, which began in early May and concluded in mid-August when the Fellows submitted their completed curriculum units, included "Reading Poetry of All Kinds: Pictures, Places and Things, People," led by Paul H. Fry, William Lampson Professor of English at Yale; "Art and Identity in Mexico, from Olmec Times to the Present," led by Mary E. Miller, Vincent Scully Professor of History of Art at Yale; "War and Civil Liberties," led by Rogers M. Smith, Christopher H. Browne Distinguished Professor of Political Science at the University of Pennsylvania; and "Astronomy and Space Sciences," led by Sabatino Sofia, Professor of Astronomy at Yale.

The twin purposes of the National Seminars were to provide public school teachers a first-hand acquaintance with the Institute approach to high quality professional development, and to cultivate their leadership either in a League Teachers Institute or in the development of a new Teachers Institute. Each participating teacher wrote a curriculum unit to teach his or her students what they had learned and to share with other teachers locally and, over the internet, internationally. The units contain four elements: objectives, teaching strategies, sample lessons and classroom activities, and lists of resources for teachers and students. The curriculum units National Fellows wrote are their own; they are presented in four volumes, one for each Seminar.

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New Haven

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