

## District of Columbia Program Standards for Teacher Preparation

### Science

*Institutions and Organizations seeking State Approval for programs which prepare and result in the recommendation of candidates for licensure as Science shall be required to demonstrate that they meet the following program standards. The Standards below are an adapted version of the 2003 standards of the National Science Teachers Association (NSTA), for the preparation of Science Teachers.*

#### **Standard 1: Content**

Teachers of science understand and can articulate the knowledge and practices of contemporary science. They can interrelate and interpret important concepts, ideas, and applications in their fields of licensure; and can conduct scientific investigations. To show that they are prepared in content, teachers of science must demonstrate that they

#### **Standard 2: Nature of Science**

Teachers of science engage students effectively in studies of the history, philosophy, and practice of science. They enable students to distinguish science from nonscience, understand the evolution and practice of science as a human endeavor, and critically analyze assertions made in the name of science.

#### **Standard 3: Inquiry**

Teachers of science engage students both in studies of various methods of scientific inquiry and in active learning through scientific inquiry. They encourage students, individually and collaboratively, to observe, ask questions, design inquiries, and collect and interpret data in order to develop concepts and relationships from empirical experiences.

#### **Standard 4: Issues**

Teachers of science recognize that informed citizens must be prepared to make decisions and take action on contemporary science- and technology-related issues of interest to the general society. They require students to conduct inquiries into the factual basis of such issues and to assess possible actions and outcomes based upon their goals and values.

#### **Standard 5: General Skills of Teaching**

Teachers of science create a community of diverse learners who construct meaning from their science experiences and possess a disposition for further exploration and learning. They use, and can justify, a variety of classroom arrangements, groupings, actions, strategies, and methodologies.

#### **Standard 6: Curriculum**

Teachers of science plan and implement an active, coherent, and effective curriculum that is consistent with the goals and recommendations of the National Science Education Standards. They begin with the end in mind and effectively incorporate contemporary practices and resources into their planning and teaching.

#### **Standards 7: Science in the Community**

Candidates are aware of and reflect on their practice in light of research on teaching, professional ethics, and resources available for professional learning; they continually evaluate the effects of their professional decisions and actions on students, families and other professionals in the learning community and actively seek out opportunities to grow professionally