

***Position Statement
of the
Science Teachers Association of Texas
Supporting
EARTH SCIENCE as a CORE SCIENCE***

(Adopted 1/03)

The Board of Directors of the Science Teachers Association of Texas joins the Texas Earth Science Teachers Association in urging the Texas Education Agency and the State Board of Education to work together to designate Earth Science-based classes as one of the options to satisfy the third year of mandated science instruction for high school graduation.

Under current standards, all high school Earth Science-based science classes are designated with “elective” status only. With this designation, students are not allowed to enroll in any Earth Science based class to meet the graduation requirements of three years of science. Students who have successfully completed the Integrated Physics and Chemistry (IPC) and Biology courses have already studied the required objectives for the 11th grade Science TAKS test for graduation. The only course options these students have are to enroll in Chemistry, Physics or Principles of Technology classes for their third year of science.

The National Science Education Standards developed by the National Academy of Sciences/National Research Council identify Earth Science as a core science curriculum area that integrates chemistry, physics and biology in an applied context at all grade levels. Earth Science-based courses include Astronomy, Aquatic Science, Environmental Systems, and the course entitled Geology, Meteorology and Oceanography (GMO). STAT strongly supports the National Science Standards and believes that the addition of Earth Science-based courses to the core science curriculum options for high school students will provide students a better understanding of the environmental, energy and water issues that are challenging our state, nation and world.

Awareness of earth science concepts is integral to all students’ ability to understand the problems and challenges that are of primary importance to today’s world. Students who have studied the scientific knowledge and processes of geology, hydrology, meteorology, oceanography and astronomy will be better prepared to critically analyze the information provided by special interest groups and make informed decisions that are based upon scientific fact.

There are many qualified Earth Science teachers in Texas public schools today whose scientific knowledge is currently being under utilized by being asked to teach IPC, Chemistry, and Physics courses that are outside of their training. Many of these teachers may ultimately leave the teaching profession if they are continually assigned to classes that are not within their chosen field or certification. The number of students enrolling in Earth Science-based courses has undergone decline from a high of 46,894 students in 1997-98 to 40,512 in 2000-2001. Within this declining enrollment in the Earth Sciences classes, the overall number of students enrolled in any science class has steadily increased from 645,950 in 1996-07 to 723,896 in 2000-2001. TESTA and STAT suggest that this decline is a direct result in students being discouraged from taking an elective designated class over a core credit designated class as required by the Recommended High School Program.

The Board of Directors of the Science Teachers Association of Texas joins the Texas Earth Science Teachers Association in urging that the Texas Education Agency and the State Board of Education join

the growing contingency of states that have already adopted the National Science Education Standards as set forth by the National Academy of Sciences/National Research Council in identifying Earth Science as a core science curriculum. By changing the Earth Science-based classes from elective to core status, Texas will be acknowledging the need and importance of a strong Earth Science-based curriculum for our students.

STAT represents over 5,500 Texas science educators, from kindergarten through college level.