

California Science Teachers Association

Policy Statement on the Teaching of Evolution

Our planet is billions of years old, and life has existed on it for a large part of that time. Through the eons, the Earth and its life have changed in an unending procession of new forms and vistas. This history and the mechanisms that bring about these changes are what is known as evolution.

Evolution occurred in the past and is still occurring today. To fully appreciate and acquire an understanding of life on Earth, one must know a great deal about present-day forms and their history. For this reason, evolution is a necessary part of everyone's education. It makes as little sense for a biology teacher to present life on Earth as a collection of static entities as it would for a social studies teacher to present civics and geography without their historical contexts.

Biological evolution refers to the scientific understanding that living things share ancestors from which they have diverged — descent with modification. It is the consensus of the scientific community that evolutionary theory best explains the history of life and accounts for the similarities among living things, as well as life's diversity. As living communities profoundly affect the composition of Earth's atmosphere, weather, soils, and temperature, evolutionary theory also explains many features of the physical world in which we live. Evolutionary biology also contributes to society in more practical ways, including increased understanding of drug resistance by human pathogens, alternatives to pest controls, use of fossil fuels, and conservation.

Teaching evolution in our science classrooms is essential. As noted in *Teaching About Evolution and the Nature of Science*, issued by the National Academy of Sciences, "Evolution pervades all biological phenomena. To ignore that it occurred or to classify it as a form of dogma is to deprive the student of the most fundamental organizational concept in the biological sciences." Evolution is identified as a unifying principle in the National Science Education Standards and is integral to the California Science Content Standards.

The California Science Teachers Association endorses the teaching of evolution at all levels of our students' education. Furthermore, we do not endorse teaching the "evidence against evolution," as there is no scientific evidence that evolution has not occurred. Nor can we condone teaching "scientific creationism," "intelligent design," or other non-scientific explanations as valid scientific theories. These beliefs ignore empirical data and fail to provide testable hypotheses. They should not be a part of the science curriculum.

Adopted December 7, 2002, CSTA Board of Directors