NYCEST 2008 Summer Institute

Six 3-credit Earth Science courses for current and soon-to-be NYC earth science teachers

- Teachers may participate in up to four courses
- All courses are designed to meet NYS Teaching Standards for Earth Science
- Full cost of tuition, books and materials, and partial cost of course-associated travel will be provided to participants through grant support from the NYSED.
- Participation is open to teachers who do not yet hold either PERMANENT or PROFESSIONAL certification to teach Earth science.
- Participants will be asked to complete an anonymous pre- and post-institute test to assist in program evaluation

The Hydrosphere	The Solid Earth and Its History	The History of Life
The Ocean System Integrated Science	**Earth: Inside and Out Dynamic Earth Systems**	**The Link between Dinosaurs and Birds**
• Six Week Online Course June 9 - July 20 Six Weeks Registration Closing Date May 27 or June 30 – Aug 10 Six Weeks Registration Closing Date June 16 Topics include: the oceans as a complex system, properties of water, origin of oceans and atmosphere, plate tectonics and ocean basins, ocean currents, oceans and life.	• Six Week Online Course June 9 - July 20 Six Weeks Registration Closing Date May 27 or June 30 – Aug 10 Six Weeks Registration Closing Date June 16 Topics include: Geologic time, radiocarbon dating, the evolution of the Earth's atmosphere, climate and climate change, plate tectonics and habitability on Earth.	• Six Week Online Course June 30 – Aug 10 Six Weeks Registration Closing Date June 16 Topics include: Anatomy, geneology and behavior of theropods; fossilization, origin of birds, dinosaur extinction.
NYC Water Sources & Cycles	**Geology of New York State**	**Global Catastophes**
• **June 30 - July 3 and July 7 - 11** • 9AM to 5PM each day at Floyd Bennett Field • An introduction to hydrogeology from a New York City perspective. Field investigations will emphasize coastal environments at Jamaica Bay but will include Prospect Park Lake and the Croton Reservoir. • Course syllabus • Course Webpage	• **July 21, 22, 28, 29**; Lectures from 5:45PM to 9:30PM • **July 24 and 31**; Fieldtrips from 9:00AM to 5:00PM • **August 4, 5, 6, 7**; Fieldtrip in upstate NY with 3 overnights • Field-based approach to geological history of New York State; Grenville Orogeny, Lower Paleozoic strata and the Taconic Orogeny, Catskill delta and the Acadian Orogeny, Mesozoic rift basins.	• **July 21, 22, 28, 29**; Lectures from 2:30PM to 5:30PM • **August 11, 12, 14, 18, 19**; Lectures from 2:30PM to 7:30PM • **July 23, 25, 30, August 1, 13**; Fieldtrips from 9:00AM to 4:00PM • Exploration of Earth dynamism and evolution; case histories of major events that changed the course of earth history. Field work will emphasize beaches of Coney Island and Jamaica Bay but will include the American Museum of Natural History and a fossil locality in NY or NJ.