Project 3D VIEW (Virtual Interactive Environmental Worlds)

NO-FEE, OUTSTANDING CURRICULUM OPPORTUNITY

November 5, 2008

Dear Principal,

We hope that your school will consider participating (for no fee!) in NASA-Sponsored Project 3D-VIEW. This unique interdisciplinary program provided with free training, is an exceptional, proven opportunity to engage 5th and 6th grade students using 3D technologies as a tool to learn science. All of the 3D tools in the program run on regular PC or Mac computers and lessons meet state science standards.

The aim of Project 3D-VIEW is to increase student achievement in upper elementary and middle school science by enabling students to truly understand abstract concepts such as seasons, photosynthesis, plate tectonics, and the carbon cycle. A 2005 study conducted by Stanford University revealed that 3D visualizations increased student understanding of the mechanisms of plate tectonics.

Curricular materials and technological tools include 3D animations, hands-on investigations, and opportunities for student inquiry. Also included are assessments modeled after standardized tests, rubrics, and special elaborate literacy and mathematics components.

Teacher training will take place live and online in January 2009. We seek teams of 2 teachers from a school. Space is limited; encourage your teachers to apply *today!*

To apply for the training, go to: www.3dview.org

Sincerely,

Glen Schuster, Project Director
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Meghan Marrero, Director of Curriculum
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No-Fee Curriculum Opportunity!

Welcome! NASA-sponsored Project 3D-VIEW [Virtual Interactive Environmental Worlds], released its final text and DVD of 3D content for Earth Science with units in Air, Life, Water, Land and Earth Systems. 3D-VIEW is a comprehensive, interdisciplinary Earth Science curriculum for classrooms: **Grades 5 & 6**.

Using the simplest of interfaces, students explore, create, manipulate and navigate 3D-stereo VIEWs, scenes and animations. Students use authentic NASA mission data as they explore and construct knowledge about the Earth's spheres: Atmosphere, Biosphere, Hydrosphere and Lithosphere. The last unit, Earth Systems, explores 'cycles' and 'energy' and integrates human impacts on the Earth System.

How does my school participate?

- Live, online teacher training offered this January 2009. (Sessions begin Jaunary 6th or 20th).
- *Preference is given to teacher teams of 2. Space is limited*—**Registration begins online on November 5th.**

To apply, go to: www.3dview.org

- Low-cost graduate credit is available upon implementation.
- Questions? Email: gschuster@us-satellite.net

What do I get?

- Standards-based, comprehensive, interdisciplinary Earth Science curricular materials including text and DVD for all school computers with assessments/rubrics.
- Live, online training for teachers.
- Follow-up support and additional future programming including scientists, career development, etc.
- A way to incorporate technology as a tool to learn science.

Sponsored by:
National Aeronautics and Space Administration
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The program is research-based and teaches students science content using a constructivist and visual approach with scientific inquiry. The program's aim is to increase student achievement in middle school science by enabling students to truly understand dozens of abstract concepts such as seasons, photosynthesis, and plate tectonics. A 2005 study conducted by collaborating partner Stanford University revealed that 3D visualizations increased student understanding of the mechanisms of plate tectonics.

Project 3D-VIEW and each unit stands alone and fits seamlessly into local curricula. It is standards-based, covering topics already taught at this level. In addition to the focus on science and technology, Project 3D-VIEW includes formal mathematics and literacy components. Each unit includes a fiction or nonfiction 'Reader' with suggested literacy activities and mathematics activities built on science content, giving a practical context to math concepts. These components are meant to enhance literacy in the science content area, mathematics achievement and cross-curricular connections.

What will students learn?

Selected topic areas in the curricular materials include:

Life Science: Cells structures• Photosynthesis & Respiration• Food Webs• Tree of Life• Characteristics of Living Things• Ecosystems• Fossils• Food Chains & Food Webs• Habitat & Niche• Biomes• Conservation & Natural Resource Management• Nitrogen Cycle• Carbon Cycle

Earth Science: Plate Tectonics• Volcanoes• Earthquakes• Tsunamis• Layers of the Earth• Composition & Properties of the Atmosphere• Weather & Climate• Seasons• Highs & Lows• Weathering, Erosion & Deposition • River Systems• Glaciers• Ocean Circulation• Phases of Matter• Renewable & Nonrenewable Resources• Rock Cycle• Water Cycle

Physical Science: Electromagnetic Spectrum• Potential & Kinetic Energy• Conduction, Convection, & Radiation• States of Matter• Waves• Temperature• Density• Interactions of Matter & Energy

Science Process Skills: The Inquiry Process• Forming Research Questions & Hypotheses• Writing & Conducting Procedures• Making Observations• Using Tools & Models• Collecting & Organizing Data• Graphing• Interpreting Data & Imagery• Drawing Conclusions