American Museum of Natural History

***The Hall of Planet Earth*** *& the NYC Watershed*

The David S. and Ruth L. Gottesman Hall of Planet Earth, located in the Rose Center for Earth and Space, displays an outstanding collection of geological specimens from around the world to show how our planet works. The hall is organized around five major questions: How has the Earth evolved? Why are there ocean basins, continents, and mountains? How do we read rocks? What causes climate and climate change? Why is the Earth habitable?

The hall features 168 rock specimens, many of which can be touched, and 11 full-scale models of classic outcrops chosen to illustrate an important aspect of Earth’s dynamic story. Interactive exhibits let visitors explore geologic time, peer into the planet’s depths, and understand the scientific methods used to study it. The regularly updated Earth Bulletin highlights important topics in Earth science.

Featured specimens come from nearly all corners of the globe and include pure sulfur formed in an Indonesian volcano, a fossil stromatolite from the Sahara Desert in Mauritania, and a rock from New York City’s Central Park. The hall’s oldest specimen is a zircon crystal from Australia that formed about 4.3 billion years ago, only 200 million years after Earth itself.

**Check out these WATERSHED points of interest:**

* Grand Canyon Section
* Grand Canyon dioramas (outside entrance of exhibit in Roosevelt Memorial Hall)
* Climate Records: Ice Core & Tree Rings
* Earth Cycles: Carbon Cycle & Fossil fuel interactive; Water Cycle Diagram; Rock Cycle Diagram
* Plate Tectonics: Mountain formation
* Dynamic Earth Sphere ceiling half-dome projection

**Student Activity & Lesson Ideas**

*Generated by teams of Watershed Forestry Educators at the Museum on Saturday, January 17, 2015*

**Guiding Questions:**

1. How does topography affect the flow of water over Earth’s surface? What are the causes of this flow? What are some of the effects of this flow?
2. What do the ice core, fossils, tree cookies teach us about the past climate?
3. How do scientists use these types of evidence and recent maps to predict future climate trends?
4. How do the different Earth cycles work together to create the form and drive the function of the NYC watershed?
5. How do natural disturbances like volcanoes, earthquakes and soil erosion affect a watershed?

**Activities During Visit:**

1. **Topographic Detectives**: Locate 2 examples of topographic maps or dioramas (remember to look just outside the exhibit entrance, too!). Describe how topography affects the flow of water over Earth’s surface.
2. **Earth’s Ultimate Watersheds**: Observe the Dynamic Earth Sphere in the center of the exhibit. Watch as the layers of clouds, vegetation, ice, and ocean peel away to reveal the underlying rocky surface. Now, explain how the oceans are the ultimate watersheds!
3. **Lessons from the Grand Canyon**: The Grand Canyon tells a story of erosion by water and wind, with steep walls of hard rock and slopes of softer, more easily eroded sedimentary rock. Study the map of the Grand Canyon and describe how the story of its formation is related to the formation of the NYC watershed and how water flows through it?