



Raven Hill Discovery Center & NASA Glenn Research Center Present Two Unique Days

Free Educator Workshops for Grades K-8

Dates: Tuesday, June 21, 2016 and Wednesday, June 22, 2016

Times: 8:30 am to 3:00 pm each day

Location: Raven Hill Discovery Center – Lunch provided

Description: **GLOBE**

Water and Soil Exploration

Scientists see some alarming changes in Water and Soil resources. Explore how water bodies change in response to changes in weather, climate and human interactions. Plan experiments to understand sustainability and water quality. Participate in a field study while collecting water and soil samples. Practice collaborating with problem based learning using free NASA resources. These project-based workshops will guide participants through hands-on and inquiry-based learning activities with water and soil. Educators will be able to use what they have learned at this workshop to motivate their students. NASA educational websites that are introduced will provide the educators with new curriculum ideas to assist in reaching the NGSS and CORE learning standards. Website: **GLOBE:** <https://www.globe.gov>

To register or if you have questions, please call 231.536.3369 or email info@RavenHillDiscoveryCenter.org

These are one-of-a-kind NASA workshops you will not want to miss! Each day of the workshop will cover different aspects of water and soil exploration.

Registration ends Monday, June 13, 2016. SCECHS available, pending approval.
SPACE IS LIMITED, SO REGISTER TODAY for one or both workshops!

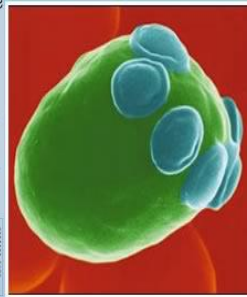
Raven Hill Discovery Center

—where science, history & art connect

4737 Fuller Road, East Jordan, MI 49727

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Tuesday June 21st

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| 8:30 a.m. – 9:00 a.m. | Welcome! Let's get organized! |
| 9:00 a.m. - 9:30 a.m. | Water Walking – What do we need? |
| 9:30 a.m. - 10:30a.m. | Water Walk-Setting up a Water Study Site/ Mapping |
| 10:30 a.m. – 12:00 p.m. | Measure up! (Taking water samples and measurements) |
| 12:00 p.m. – 12:30 p.m. | Lunch |
| 12:30 p.m. -1:30 p.m. | Water Detectives (p.H) |
| 1:30p.m. - 2:30p.m. | Macroinvertebrate Study |
| 2:30p.m.-3:00p.m. | Looking at the Data |

Wednesday June 22nd

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|-------------------------|---|
| 8:30 a.m. – 9:00 a.m. | Welcome! Let's get organized |
| 8:30 a.m. – 9:30 a.m. | What will we do? Mapping the Site: Collecting samples |
| 9:30 a.m. - 10:30a.m. | Collecting Samples, Mapping the site |
| 10:30 a.m. – 12:00 p.m. | Measure up! (Soil Characterization) |
| 12:00 p.m. – 12:30 p.m. | Lunch |
| 12:30 p.m. -1:30 p.m. | Measure Up! Soil Temperature and Moisture |
| 1:30p.m. - 2:30p.m. | Just passing Through: Permeability (Soil pH) |
| 2:30p.m.-3:00p.m. | Exploring Implementation Strategies |

Presenter: NASA Glenn Research Center EPD Specialist, Susan Kohler

Susan has more than 25 years of progressively responsible K-12 educational leadership experience. She has served as Asst. Principal, Principal, Curriculum Director, Math/Science Consultant and Asst. Superintendent. Susan taught science for 13 years at the high school level. Her expertise in STEM and professional development is combined with her knowledge of new technology trends and innovative instructional strategies. Susan holds a Master's in Education Administration from Bowling Green State College as well as a Bachelors degree of Science in Biology and Neuroscience from Ramapo College in New Jersey. She currently works for NASA as the Education Professional Development Specialist for Glenn Research Center in Cleveland Ohio.