



ERC/PDI Professional Development Training Schedule

Choose one or all training sessions!

(Please note that the PD training for November 2013 is 2-days)

October – December, 2013

Bring your lunch!

Space is limited, so register today!

To register or for questions, contact Monica Boyd

Email: Monica.L.Boyd@nasa.gov

Phone: 216-433-2004

[NASA presents: Climate Change and Remote Sensing](#)

Date: October 18, 2013 (NEOEA Day); Registration Deadline: October 10, 2013

Target Audience: Grades 4 – 9

Location: Ohio Aerospace Institute (OAI)

Time: 8:30 a.m. – 3 p.m.

Educators will be introduced to remote sensing as it pertains to climate change. NGSS standards relating to Earth's systems, climate and weather will be connected to the NASA activities and web sites. The activities integrate Science, Technology, Engineering and Math (STEM) with English language arts skills.

Participating educators will explore the planet's health report with NASA Climate Time Machine: researching air, temperature and sea ice. Time will be allotted to fly along with NASA satellites and design a satellite using the engineering design protocols. Games, inquiry-based activities and designing experiments are all part of this workshop.

[NASA presents : Beginning Engineering Design ,Science and Technology](#)

November 19 and 20, 2013 (Day 1); Registration Deadline: November 8, 2013

Target Audience: Grades K – 8

Location: Ohio Aerospace Institute (OAI)

Time: 9 a.m. – 3 p.m.

This workshop is designed for educators wishing to learn about how to develop and support students using the Engineering Design Process. Educators will practice innovative teaching strategies focused on how to address motivation in student learning and how to teach without telling.



The workshop will incorporate activities from the NASA Beginning Engineering, Science and Technology (BEST) Teacher's Guides with a content theme around investigating the moon as a place to live and work in the future.

The NASA's BEST Activities Guides were designed to teach students the Engineering Design Process. The three guides are designed to target Project Based Learning in three grade bands: K-2, 3-5 and 6-8. The program includes a series of STEM activities that teach students: how we investigate the Moon remotely (Part 1), the modes of transportation to and on the Moon (Part 2), and humans living and working on the Moon (Part 3).

NASA Rocks: Lunar and Meteorite Certification Workshop

November 19 and 20, 2013 (Day 2); Registration Deadline: November 8, 2013

Target Audience: Grades K – 12

Location: Ohio Aerospace Institute

Time: 9 a.m. – 3 p.m.

NASA brings the moon to your students. Participants will be qualified to use lunar as well as meteorite samples in their classrooms providing an enriching learning experience for their students. The activities in this workshop will ignite and motivate students in science through the use of inquiry-based science activities relating to the moon. The NASA educational websites introduced will provide the educators new curriculum ideas to assist in reaching learning outcomes standards for science.

The following activities may be included:

- Moon Dance- Space School Musical
- NASA e-Clips web page as a resource - Rock Cycle e-Clips video
- Rock ABC's Activity
- Accretion and Differentiation Activities
- Lava Layering Activity
- Meteorite Blues – Space School Musical
- Meteorite Impact Activity
- Searching for Meteorites Activity

Web page

<http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Exploring.the.Moon.html>



[NASA presents : Aeronautics for STEM Educators](#)

Date: December 10, 2013; **Registration Deadline:** November 29, 2013

Target Audience: Grades 3 – 9

Location: Ohio Aerospace Institute (OAI)

Time: 9 a.m. – 3 p.m.

This STEM workshop will guide participants through problem-based engineering design activities related to forces and motion including the aeronautics forces: lift, thrust, drag and weight.

Participating educators will be able to use what they have learned at this workshop to ignite and motivate their students in science through the use of inquiry based science activities relating to the exploration of flight.

The activities and NASA educational websites introduced will provide the educators new curriculum ideas to assist in reaching the NGSS for science as well as the CORE standards in math and language arts.

- NASA Resources- Aeronautics Guide
- Air Engines- Balloon Race Challenge
- Rotor Motor-Use rotary wing models in problem based engineering design
- Right Flight- Use a glider model in problem based engineering design
- Helium Balloon Challenge- Use helium balloons to explore neutral buoyancy