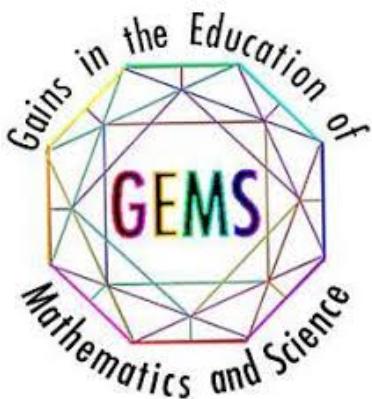


Exploring Weather, Climate, and the Environment



GEMS Camp 2021

Cold Regions Research and Engineering Laboratory (CRREL)

July 26 – 30, 2021

09:00 am to 4:00 pm

GEMS Camp is Virtual (online)

Eligible participants: Middle School Students – 7th through 8th Grade CRREL is also looking for a Resource Teacher to assist with the GEMS Camp curriculum (stipend provided)

The GEMS Camp is FREE!

The GEMS Camp is a science-based, hands-on approach to discovery. All materials will be shipped to students.

Building an Automated Weather Station (AWS)

Students will build their own AWS kit and program it simply to collect and store data.



Energy through wind and solar power

Students will build a mini-wind turbine to generate power, and use that power to run equipment and to collect and store data. Students will also discover the use of solar power and how the sun's rays are the planet's most plentiful source of energy.

Microbial Fuel Cells

Soil is a great habitat for living organisms. Some of these organisms are so small that you can't see them. Students will learn how power and energy comes from the use of these soil organisms, how that power is measured, and how water and other elements affect that power.



Learning about water quality

Leaves in stream beds are an important source of organic matter and a great habitat for aquatic insects. Students will collect samples from stream beds and discover the amount and variety of insects, and the insects' intolerance of pollution. This helps to measure the quality of the water in which these insects thrive.



An underground treasure hunt using GPR

Ground-penetrating Radar (GPR) is a non-destructive geophysical technique used to image the subsurface of the ground. Students will explore the hidden treasures under the ground and learn how the GPR is used to detect utilities, geologic contacts, voids, and even archeologic sites.

APPLICATION DEADLINE: June 13, 2021

Application link and more information: <https://www.usaeop.com/program/hanover-nh/>
click the yellow "Register now" button at the bottom of the screen

Questions? Contact the CRREL GEMS Coordinator

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