

## NGSS Professional Development Workshop Series Using Systems and System Models to Make Sense of Phenomena

Grades K-5: Tuesday December 10, 2019, 9:00 AM – 3:30 PM

Grades 6-12: Wednesday December 11, 2019, 9:00 AM – 3:30 PM

Fee: \$125 Credits: 5.5 PDU Hours

In 2019-2020, the Science Education Institute at Raritan Valley Community College will offer a series of four one-day workshops designed to support teachers and supervisors with the implementation of the Next Generation Science Standards (NGSS).

The vision behind the NGSS is to provide students with the knowledge and skills so that later in life they can use science to make sense of the natural world outside the classroom. To make this vision a reality, NGSS-aligned lessons are driven by natural phenomena (observable events). Students learn how to use Crosscutting Concepts to guide their thinking about these phenomena. They engage in Science Practices and use Core Ideas in science to investigate how and why these natural phenomena occur and support their explanations with arguments.

This workshop will focus on the Practices of Developing and Using Models and Analyzing and Interpreting Data, and the Crosscutting Concepts of Systems and Patterns. Participants will engage in NGSS-aligned investigations that are driven by natural phenomena in a variety of science content areas to deepen their understanding of these Practices and Crosscutting Concepts and how they mutually support each other. They will take away strategies to support students as they analyze and interpret data to investigate the natural systems that cause these phenomena. They will learn how to represent these systems using a variety of models to explain these phenomena. Participants will experience and reflect on how Practices, Crosscutting Concepts, and Core Ideas are meaningfully integrated in instruction and assessments using Performance Tasks. There will be time for reflection and to plan NGSS-aligned lessons.

The workshop will be held at Raritan Valley Community College in North Branch (NJ) and will begin promptly at 9 am and end at 3:30 pm. Light breakfast and lunch will be provided.

The workshop is led by Dr. Wil van der Veen, a nationally recognized expert in science education and a member of the New Jersey State Leadership Team for the NGSS. Participants will work in small groups that are facilitated by experienced classroom teachers from our NGSS Teacher Leader Program.

For more information and to register online go to our website at [www.raritanval.edu/ngss](http://www.raritanval.edu/ngss).

We recommend sending leadership teams of 3-7 teachers to at least three one-day workshops or the Summer Institute to develop a solid foundation for the NGSS.



*A model to explain how sound can break a glass.*