

## **NGSS Professional Development Workshop Series Using Crosscutting Concepts to Investigate Natural Phenomena**

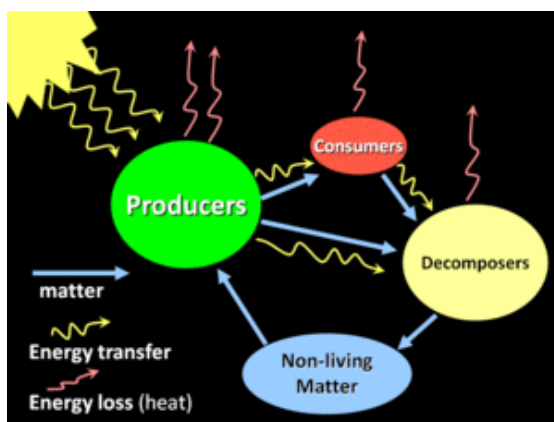
**Grades K-5: Tuesday December 12, 2017, 9:00 AM – 3:30 PM**

**Grades 6-12: Wednesday December 13, 2017, 9:00 AM – 3:30 PM**

**Fee: \$125 Credits: 5.5 PDU Hours**

In 2017-2018, the Science Education Institute at Raritan Valley Community College will be offering two 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 make sense of the natural world and construct explanations for natural phenomena (observable events) on their own. To make this vision a reality, the NGSS requires that students engage in Science Practices to explore how and why natural phenomena occur. As they construct explanations for these natural events they apply their understanding of Core Ideas in science and use Crosscutting Concepts to guide their thinking.



This workshop will focus on Crosscutting Concepts with an emphasis on Systems and System Models, Energy and Matter, Stability and Change and Developing and Using Models. Participants will be engaged in NGSS-aligned investigations in a variety of science content areas to deepen their understanding of these Crosscutting Concepts and this Practice and how they mutually support each other. Participants will learn how to use Crosscutting Concepts to guide student thinking and make sense of natural phenomena. They will take away strategies to help students define natural systems related to the natural phenomena they are investigating. Specifically, they will investigate how to trace the matter and energy into, within, and out of natural systems, and consider how these systems are changing, and on what scale. The investigations will engage participants in Performance Tasks that are modelled after the NGSS Performance Expectations by combining Practices, Crosscutting Concepts, and Core Ideas. There will be opportunities for participants to reflect on the investigations and to use a nationally field-tested Lesson Idea Template to develop Performance Tasks and 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 by 3:30 pm. Light breakfast and lunch will be provided.

The workshop leader, Dr. Wil van der Veen, is a nationally recognized expert in science education and is 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) or contact Mariel O'Brien at [mariel.obrien@raritanval.edu](mailto:mariel.obrien@raritanval.edu) or 908-526-1200 Ext 8942.**