

## KEYNOTE ADDRESS:

# ENGAGING STUDENTS IN DOING SCIENCE TO LEARN SCIENCE

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The Framework for K-12 Science Education and the Next Generation of Science Standards challenges the science education community to support students in developing deeper, useable knowledge to make sense of phenomena or solve problems. This will only occur when students make use of the three dimensions – disciplinary core ideas, scientific and engineering practices and crosscutting concepts. The Framework and the NGSS refer to this as 3-dimensional learning. Three-dimensional learning shifts the focus of science classrooms from environments where students learn about science ideas to places where students do science by exploring, examining and using science ideas to explain how and why phenomena occur and designing solutions to problems. Doing science to learn science helps students form useable knowledge to explain phenomena and make sense of problems. In this session, Professor Krajcik will provide an overview of each of the dimensions and show how they work together to enable students to explain phenomena or design solution to problems. Woven throughout his remarks, he will discuss the opportunities and challenges of engaging learners in three-dimensional learning.

### STANYS Fall Regional Science Conference Monday, October 16<sup>th</sup> Hofstra University – Mack Student Center

7:30am – 8:10am: Morning Registration & Light Refreshments

8:20am – 9:40am: Welcome & Keynote Address

9:50am – 11:00am: Workshop Session A

11:00am – 12:00pm: Lunch

12:00pm – 1:10pm: Workshop Session B

1:20pm – 2:30pm: Workshop Session C

