

1086-VR-1264      **Scott R Kaschner\*** ([srkaschn@iupui.edu](mailto:srkaschn@iupui.edu)), 1138 Canterbury Square South, Indianapolis, IN 46260. *Dynamical Systems in the Sixth Grade Science Classroom*. Preliminary report.

This year I've been very fortunate to work with the GK-12 program, which places researchers from STEM fields into K-12 classrooms. My experience has been that often, very young students have an underlying intuition for mathematical concepts to which they have never formerly been exposed, and this program has given me the opportunity to explore that intuition using an inquiry-based approach.

This presentation will focus on the successes and failures I've had in presenting advanced mathematical concepts to a 6th grade science class. In particular, the students studied the exponential growth of error in a length measurement lab. Besides describing this lab and some of what both I and the students learned from it, I will discuss my plan and approach for future lessons this year. I intend to reiterate the exponential growth ideas in a population models lab, and this will lead into a lab on chaotic dynamics that explores "sensitive dependence on initial condition." (Received September 20, 2012)