



Guide

Student-Generated Scientific Inquiry

 Indicates a research-demonstrated benefit

Overview

A curriculum for pre-service teachers. Students craft and investigate their own scientific questions about a range of scientific topics.



Type of Method Instructional strategy



Level

Designed for: Teacher Prep Course 

Can be adapted for: High School, Intro College Conceptual



Setting

Designed for: Lab 

Can be adapted for: Lecture - Small (<30 students), Studio



Coverage

Few topics with great depth



Topics

Mechanics, Electricity / Magnetism, Waves / Optics, Thermal / Statistical, Astronomy, Other Science



Instructor Effort

High






Resource Needs

Advanced lab equipment



Skills

Designed for: Making real-world connections , Using multiple representations , Designing experiments 

Can be adapted for: Conceptual understanding



Research Validation

Based on research into: theories of how students learn 

Demonstrated to improve: beliefs and attitudes 

Studied using: student interviews 



Compatible Methods

[PhET](#), [JiTT](#), [Physlets](#), [SCALE-UP](#), [OSP](#), [LA Program](#), [CPU](#), [Energy Project](#), [Responsive Teaching](#)



Similar Methods

[Energy Project](#), [Responsive Teaching](#)



Developer(s)

Leslie Atkins



Website

<http://phys.csuchico.edu/~ljatkins/SGSI/>



Intro Article

12971



Intro Article

Student-Generated Scientific Inquiry for Elementary Education Undergraduates: Course Development, Outcomes and Implications

