

Science Outreach

A Skill-Builder for Undergraduates

Jacob Robertson & Zak Noel
SPS SOCK Interns

Mentored by Brad Conrad

jrobertson15@my.apsu.edu





**SCIENCE OUTREACH
CATALYST KIT**

SPS SOCIETY OF PHYSICS STUDENTS

In partnership with



NIST
National Institute of Standards and Technology
U.S. Department of Commerce

Proudly presents...

ARE YOU READY TO SOCK?!!?!

Science Outreach Catalyst Kit

Exploring concepts in the Physics of Sound Waves



Coming to a science outreach event near you

2015 - 2016

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Science Outreach Catalyst Kit

2014-15 LIGHT: A SPECTRUM OF UTILITIES

A set of hand-on experiments and activities address the following questions:

- How do we use light every day?
- How can light tell us about matter and its structure and why does structure matter?

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Science Outreach Catalyst Kit 2013

2013: SENSORS, DETECTORS AND METEOR SHOWER MY!

A set of hand-on experiments and activities designed to address the question: How do we know...?

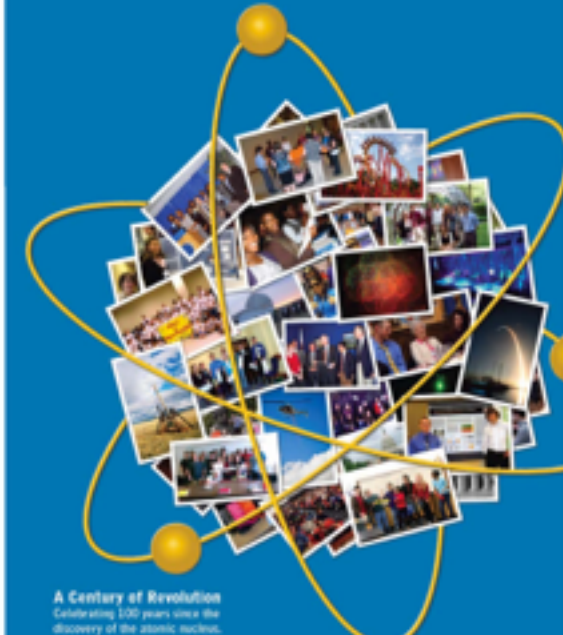
SOCIETY OF PHYSICS STUDENTS

Summer Intern Program presents

SOCK 2012
(Science Outreach Catalyst Kit)


The Fabric of the Cosmos

A Century of Revolution
The 2011 Science Outreach Catalyst Kit (SOCK)




A Century of Revolution
Celebrating 100 years since the discovery of the atomic nucleus.

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Science Outreach Catalyst Kit

2009-10
ROLLING WITH LASERFEST



Makin' Waves

The 2008 Student Outreach Catalyst Kit (SOCK)



User's Guide to the 2006 SOCK

SPS Outreach Catalyst Kit

Developed by Katherine Zaubrecher
Contributions by Jackie Michalek
2006 SPS Interns

In conjunction with



The Society of Physics Students Presents...



The 2005 Student Outreach Catalyst Kit

The 2005 S.O.C.K. (SPS Outreach Catalyst Kit) brought to you by: SPS Interns Morgan Hoffelt, Rebecca Keith, Heather Linn and M...

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Science Outreach Catalyst Kit

2003
SPANNING SPACE

Dimensions in Physics

Table of Contents

Section 1: Getting to Know Your SOCK

- About SOCKs
- Special Thanks
- SOCK Buyer's Guide
- Setting Up Events
- Event Preparation

Section 2: Demonstration Ideas

- Presenting Polyhedra
- Movie Madness
- Giant Mobius Band
- The Big Blue Sky
- One Moon, Two Tides
- The Birth of a Solar System

Section 3: Workshop Activities

- Pondering Polyhedra
- A Leg to Stand On
- Rainbow Reversal
- Taming the Tides
- Marbles in Orbit

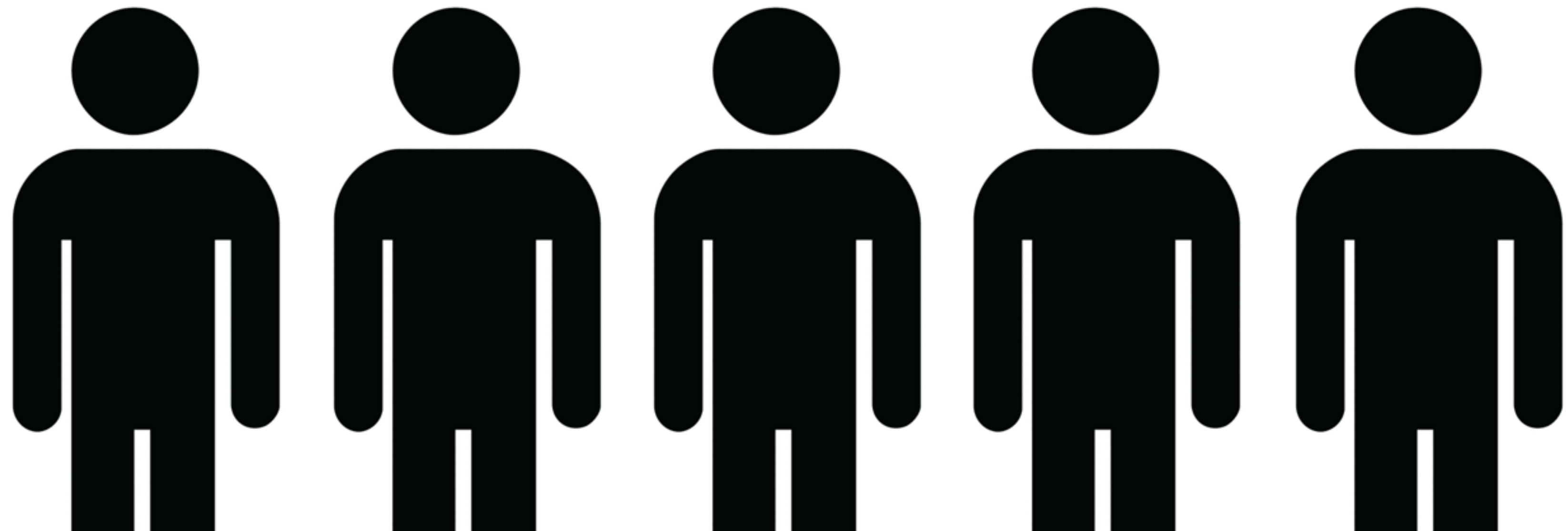
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Science Outreach Catalyst Kit

2001
RAINBOW ROOM

Why is science outreach good
for the public?



Why is science outreach good for students?



“

...to help students transform themselves into contributing members of the professional community...

”

-SPS Mission Statement

Improve Interpersonal Skills



- Develop verbal and non-verbal communication skills
- Practice problem-solving and decision making skills





Further Own Understanding



- Careful forethought and consideration of fundamental principles
- Challenging questions are asked

Create Community Relationships



- Makes science a community asset
- Investment in a scientist's career



How does SPS
facilitate science
outreach skill-building?



3-5 demonstrations
20-25 chapters served
\$80 per box



1+ demonstration
100 chapters served
\$20 per box



20 demonstrations
all 812 chapters served
\$5 - \$20 per demo

Astronomy	Acoustics	Optics	General Physics	Mechanics	Electricity & Magnetism
Eclipse Model	Straw Oboe	Variable Index of Refraction	Borate Glass	Density Column	Ferrofluids
Composition of the Universe		Polarization of Light		Egg Drop	Cell Phone Charger
Fabric of the Universe		The Speed of Light		Egg Crusher	Homopolar Motor
Fabric of the Universe 2		Reflection & Refraction			Eddy Currents
Pinhole Projector		Light Fountain			
		Hair Diffraction			



Instruction Document



Video

16:01 / 47:59



Categorized

spsnational.org/outreach

Thank you

Brad Conrad

James Merrick

Kerry Kidwell-Slak

Tracy Schwab

Gary White

Zakary Noel

Donna Hammer