OUTREACH

OPTICS IN EASTERN CONNECTICUT

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OSAF CHAIRMAN’S BREAKFAST 2009
WHO WE ARE

- **EASTCONN**
  - One of six regional education service centers in Connecticut
  - Provide educational services and programs to students and teachers in northeastern Connecticut

- **THREE RIVERS COMMUNITY COLLEGE**
  - Associate degree granting college in southeastern Connecticut
  - Connecticut’s only Laser and Fiber Optic Technology program
OSAF SUPPORTS OPTICS IN EASTERN CONNECTICUT

- “Light and vision” added to Connecticut science curriculum 2006
- OSAF provides support to:
  - Programs for teachers
    - Professional development
    - Lending library
  - Programs for students
    - Optics in the Classroom
    - Investigating the Night Time Sky
TEACHER PROFESSIONAL DEVELOPMENT

- Yearly teacher professional development workshops
- Content knowledge for teachers
- Standards-based lessons on waves, sound, light
TEACHER PROFESSIONAL DEVELOPMENT

- Lending library
  - Optics-themed kits to trained teachers to use in their classrooms
  - Supplies including laser pointers, mirrors, fluorescent minerals, UV lights, sky quality meters, Hands-on-Optics kits
OPTICS IN THE CLASSROOM

- Fifth Grade Optics Day
  - Now in its fifth year
  - Has served over 500 students from eight towns
OPTICS IN THE CLASSROOM

- Inquiry-based activities aligned with CT science standards
  - Visible spectrum, reflection, refraction, waves, polarization (PHOTON Explorations)
  - Working as teams, students record observations and draw conclusions
  - Take-home projects to share with family and friends
Laser Camp

- Now in its 4th year
- Program has grown from 30 to over 70 students per year
OPTICS IN THE CLASSROOM

- LASER CAMP activities
  - Laser engraving
  - Reflection holograms
  - Pinhole photography
  - Mirror challenge
  - Polarized light art
  - Fiber Optics
  - Teambuilding
INVESTIGATING THE NIGHT TIME SKY

- Dark Skies at EASTCONN
  - International collaboration to measure the brightness of the nighttime sky
  - Now in its third year, four U.S. states and three international partners
INVESTIGATING THE NIGHT TIME SKY

- Dark Skies at EASTCONN activities
  - Pen pal partners
  - Skype and desktop conferences with students and Dr. Connie Walker (NOAO)
  - Data contributions to Globe at Night
INVESTIGATING THE NIGHT TIME SKY

- Dark Skies at EASTCONN - Astronomy Day
  - Telescopes, UV investigations, planetarium
INVESTIGATING THE NIGHT TIME SKY

LIGHT IN OUR LIFE POSTER CONTEST

- Dark Skies participant schools plus additional schools in Greece and Romania
- Use your imagination and knowledge of optics to create a poster or photograph illustrating the theme ‘Light in our Life’
- Judged by international team of art and science instructors
PLANS FOR 2009-2010

- Teacher professional development workshop in October
- Fifth grade Optics Day with added schools
- Dark Skies at EASTCONN will be making Galileoscopes

- Laser Camp – *LASERFEST edition*
  - Two days of activities celebrating LaserFest at Three Rivers Community College
  - Field trip to Trumpf

- Light in our Life Poster Contest 2010
Thank you

“I loved to see the different colors in a light. When I got home I showed my family how to look at the lights and they thought it was really interesting.” - Kaitlyn

“My favorite was the pen pals. I got to know people from Ohio and Vernon.” - Nathan (from Stafford, CT)

“The Dark Skies program was great because I felt like a real scientist while recording data.” - Sam

“I saw my daughter ‘shift’ into scientist role each night – all measurements had to be precise.” - parent from Stafford, CT
Thank you