

## A Special Relationship

Even though **ETHOS**' core business is science kit refurbishment **ETHOS** recognizes that the most important part of any educational endeavor is well prepared teachers. Because **ETHOS** is located within the Elkhart Community School District, **ETHOS** can work closely with the Elkhart Schools to provide continuing professional development and follow-up support to ECS teachers. The **ETHOS** facility provides an atmosphere that is highly conducive to professional development activities and it is readily accessible to Elkhart Teachers.

**ETHOS** believes that it is capable of servicing science kits for all the school districts in Indiana that use science kits (additional warehousing and refurbishing centers in the central and southern regions of the state would be developed); however, **ETHOS** only provides intense, continuing professional development and follow-up classroom support in local community schools.

## Opportunities ETHOS provides ECS

- Professional development and follow-up
- Extra effort to include teachers of ENL, Special Education and Alternative Education
- Summer science camps
- Community science outreach efforts (Science nights out and Spooktacular)
- Office space for the district science teacher and the master science teachers making standards-driven, guided field trips (including StarLab) easily accessible to ECS
- Piloting new science kits
- Publisher workshops at no cost
- Active search for grants and preparation of proposals to fund professional development
- **ETHOS** web site features many ECS highlights

**ETHOS** customizes services and gives added value to each client; however, ECS receives more value added services than any other client.

## ETHOS Goals

1. Provide excellent support for K–12 inquiry-centered science instruction that is hands-on, research-based, and standards driven (Meets the National Science Standards)
2. Maintain a quality distribution and refurbishment center that supports the hands-on science curriculum
3. Provide professional development for teachers of science to enhance science content knowledge as well as inquiry instruction and assessment methods
4. Continue to use an assessment process to monitor program development and student achievement and make any needed modifications that would enhance the program based on feedback and observations
5. Host annually at least one major science promotion community event that acknowledges all sponsors
6. Provide a hands on science museum to serve as a catalyst to engage people of all ages into enjoying a better understanding of science and the world around us

### ETHOS is currently providing:

Science materials management for:  
Fairfield Community Schools (K–6)  
and  
Elkhart Community Schools (K–6) as  
well as  
Professional development for Elkhart  
Community Schools and other Northern  
Indiana Educators.



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# Elkhart Community Schools/ ETHOS Partnership



**Helping students learn science.  
Helping students love science.**

**ETHOS, Inc. is a 501(c)(3) Not-For-Profit  
Education Organization**

## Master Science Teachers

**Dana Knapp**, *Master Science Teacher: Elkhart Community Schools/ETHOS*  
dknapp@elkhart.k12.in.us

- B.S. / M.S. Indiana University-Education 1978,1982
- Minor Science Education (1987)
- K-12 Teaching License (Life License)
- Outdoor Education Center Teacher- KY, TN,OH, TX 1978- 1982
- Roosevelt Elementary School Grades: 5/6 in G/T: 1990-2005
- ECS/ETHOS MST 2005-present
- Science Fair Judge/Coordinator
- STAR Research Program 1995-2002
- Who's Who in America Teacher's Award 2000 through 2007
- Presented: NSTA & HASTI Conferences 2005-present
- Board Member: ETHOS, Inc.
- Professional Org. Member: HASTI, NSTA, ACS, AAAS, & others

**Danae` Wirth**, *Master Science Teacher: Elkhart Community Schools/ETHOS*  
dwirth@elkhart.k12.in.us

- Adjunct Prof. of Education, Goshen College 2008-2010
- B.S. Education, Goshen College; MEd. Purdue University - Science Education
- MS Zoology, Miami University, OH (2011) scholarship recipient
- Minor TESOL, Endorsement Kindergarten
- Additional: Reading Recovery, Indiana Mathematics Institute
- Indiana Reading First Academy, multiple science curriculum trainings
- First Grade/Reading Recovery Teacher, Elkhart Community Schools 2001-2005
- Professional Development Coordinator, ETHOS/ ECS 2005-present

- Committee member service IDOE and ISTEM
- Presenter: State, National, and International Conferences 2005-present
- Board Member: Hoosier Association of Science Teachers, Inc.
- Professional Org. Member: ASCD, HASTI, NSTA, NAEYC, AAAS, & others

**Cynthia A. Bucher**, *Master Science Teacher, Elkhart Community School/ETHOS*  
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- B.S. at Indiana University- Elementary Education, 1981
- M.S. at Indiana University - Special Education, 1992
- Taught at Bristol Elementary 1986 – 2010
- Bristol Science Fair Coordinator,1986 – 2010
- Elkhart City Science Fair, Co- Coordinator 1991 – present
- STAR Research Program 1996-1999
- Who's Who in America Teacher's Award
- Laser (K-8) Science Education Strategic Planning Institute, July 2004
- Exploratorium Introduction to Inquiry, San Francisco, January 2005
- Served on Science Adoption Committee, 1998, 2004, 2010
- Professional Organization Membership: HASTI, NSTA

## Role of Master Science Teachers

Master Science Teachers (MSTs) are ECS teachers with well defined job descriptions. The current MSTs have been funded by ESEA Title II grants for the last 5 years.

The MST's role is sharing the knowledge of best practices in science teaching. ETHOS provides MSTs additional access to conferences, workshops and publications. The MSTs remain committed to enhancing their own content and pedagogy knowledge through continued professional development, and share their knowledge through workshop presentations at conferences.

Released to work in cooperation with ETHOS, and housed at the ETHOS facility, the MSTs for ECS work directly with ECS teachers to model inquiry teaching practices, develop classroom lessons, and implement the science curriculum. They are trainers, coaches, mentors, and peer teachers to ECS staff members. They also assist with and lead several ETHOS based or on-site field trips at various schools throughout the year.

## Elements of an Effective Science Program

The National Science Resources Center (NSRC) promotes Leadership and Assistance for Science Education Reform (LASER) which is based on the following five elements— adapted to show where ETHOS fits in.

1. Inquiry-centered science curriculum units that have gone through a research and review process (science kits)
  2. Master Science Teachers provide professional development programs to prepare teachers to guide students in inquiry-based science
  3. Science Kit Management by ETHOS provides a cost effective support system for supplying science materials and apparatus to classrooms
  4. Master Science Teachers demonstrate assessment methods consistent with the goals of an inquiry-centered K–8 science program
  5. Administrative and community support for science education reform (Community science outreach)
- ETHOS can help school districts in each of the above areas.