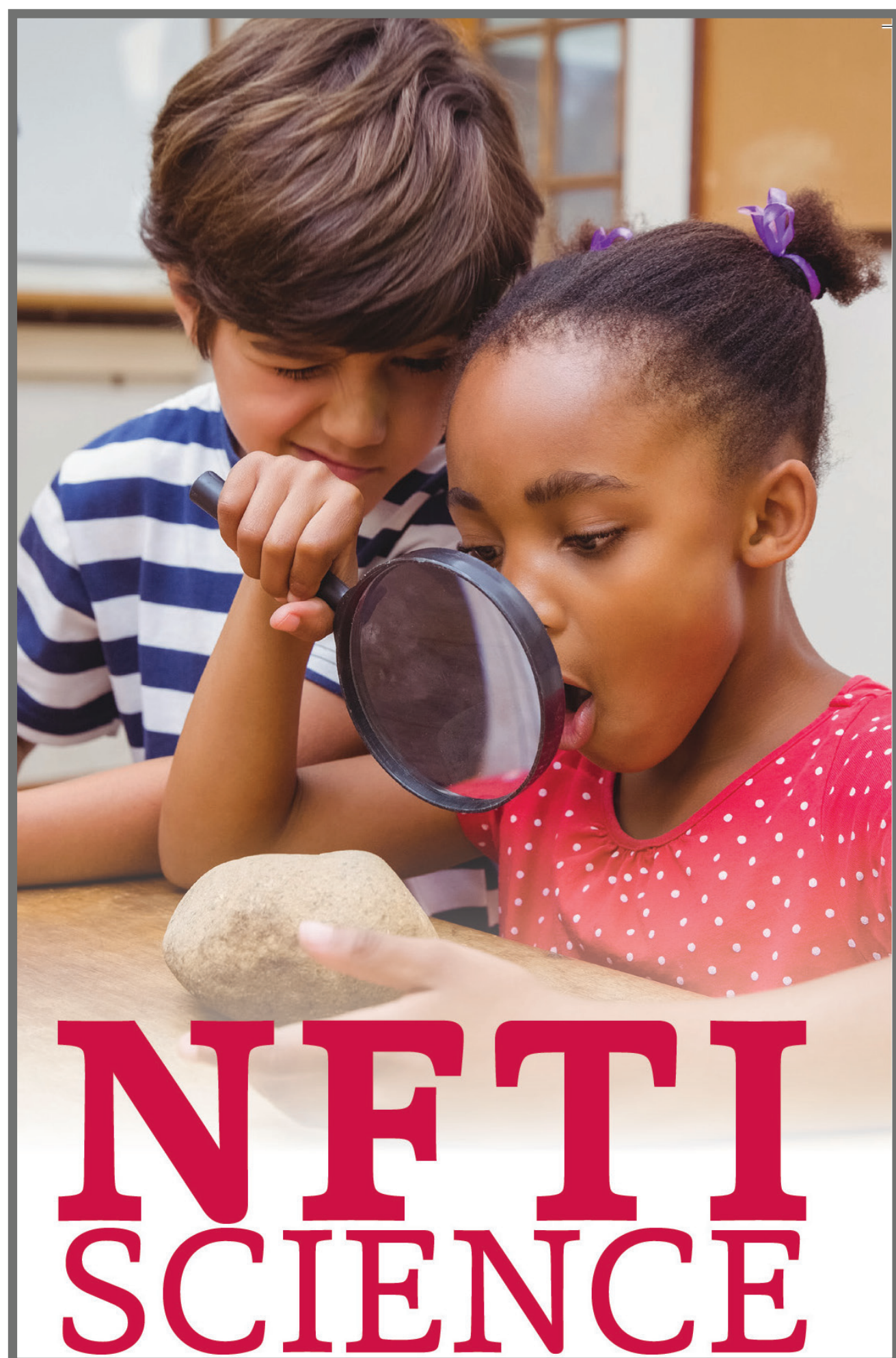


NONFICTION TEXTS IN INQUIRY-BASED SCIENCE (NFTI): SCIENCE AND LITERACY PD FOR ELEMENTARY TEACHERS



WHY NFTI SCIENCE?

Elementary teachers are connoisseurs of children’s literature—especially fiction. They confidently select appropriate fiction and successfully use it for instructional purposes. It’s another story when it comes to science-themed nonfiction. They are unfamiliar with nonfiction texts and lack confidence in their science knowledge. The NFTI Science PD program focuses on the integration of nonfiction text into inquiry-based science instruction. Through this PD program, teachers increase their science knowledge, learn to evaluate texts for use in science instruction, develop a deep understanding of what inquiry-based science instruction really is, and learn to develop their own integrated lessons.

PROFESSIONAL DEVELOPMENT PROGRAM

NFTI Science for grades 3 – 5 is a **two-year program** that uses a train-the-trainer model. Teacher-facilitators are trained to deliver PD to other teachers in their district/area. **Teacher-facilitators receive 120 hours of PD each year. Teachers receive 60 hours of PD per year.** To date, 31 teacher-facilitators have been trained. They have in turn trained over **400 teachers**. The program includes topics in life, earth, and physical science. Instructional topics include the learning cycle and inquiry instruction, evaluation of children’s science-themed nonfiction texts, literacy strategies, and construction of integrated lessons. The K – 2 program is a two-year program in which teachers receive 120 hours of PD each year. The NFTI Science team is delivering the PD to 60 K – 2 teachers.

FINDINGS AND FUTURE PLANS

Early findings show **statistically significant gains in teacher science knowledge and student achievement**. Fifty-nine teachers from Cohort 1 completed the pre/post assessments, **demonstrating a gain in the total post score**, the mean increased by 2.58 (from 24.37 to 26.95), which had a high medium effect size of .66. A total of 351 NFTI students submitted pre/post content assessments. **Each of the grade-specific NFTI student groups (grades 3, 4, and 5) had significant post gains on their total score.**

NFTI Science has had a positive impact on participating teachers and their students. The NFTI Science team plans to broaden the scope of the program by offering it in additional areas across Ohio and expanding to include grades 6 – 8.

COLLABORATORS

The Ohio State University

- College of Education and Human Ecology
- Department of Educational Studies
- K – 12 STEM Programs

PARTNERS

- Teaching & Learning Collaborative
- Capital University
- Teays Valley Local Schools



TEACHER QUOTE:

“NFTI Science is shifting ideas of integration, literacy, and science.”

Bring NFTI Science into your building/district and watch as teachers and students make the shift to better learning in science!

CONTACT:

Dr. Terry Shiverdecker
NFTI Science PI
shiverdecker.7@osu.edu

Marcie Kamb
NFTI Science Program Manager
kamb.3@osu.edu



THE OHIO STATE UNIVERSITY

COLLEGE OF EDUCATION
AND HUMAN ECOLOGY