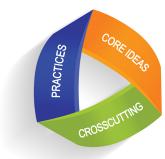
LIPTA Spring Conference Saturday, April 29 8:30 — Noon Northport HS

NGSS / NYSSLYS Phenomena & Anchoring Activities Presenter: Karyn Libretto

Despite their centrality in science and engineering, phenomena has traditionally been a missing piece in science education, which too often has focused on teaching general knowledge. This can cause students to have difficulty applying their knowledge to real life situations.

Anchoring learning in explaining phenomena supports student agency for wanting to build science and engineering knowledge. Students are able to identify an answer to "why do I need to learn this?" before they even know what the "this" is. By centering science education on phenomena that students are motivated to explain, the focus of learning shifts from learning about a topic to figuring out why or how something happens. Explaining phenomena and designing solutions to problems allow students to build general science ideas in the context of their application to understanding phenomena in the real world, leading to deeper and more transferable knowledge.



A Brief History of Neutrinos Presenter: Harry Stuckey



Ever wonder how scientists found the neutrino? How did anyone know to look for it, and what good is it? The story takes many turns including the Nobel laureates who wanted to scrap a conservation law, the theorist going through a painful divorce, a major journal's blunder, a mysterious (and still unsolved) disappearance, the political defection of a major player, and the Nobel prize given to a self-described plumber. All that and more will be revealed in this presentation on the "ghost particle".

3 CTLE credits available \$15 online registration by Wed, April 26 \$20 to be paid at the door after April 26 Full details and registration at www.lipta.org