

Using science and engineering practices to learn about work, power and, energy while designing windmill blades

Duane Merrill and Nathan van Dyke (Brigham Young University, USA)

Session 1

Physics Teacher Preparation and engaging local physics teachers in building relevance in teaching secondary physics students. The use of a simple windmill to teach physics and engineering principals. 3d Printing files shared with all participants.

Session 2

A University public school model of Professional Development. Bringing Pre Service physics teaching students together with local physics teachers. The model of Professional Development that has brought together a diverse partnership of growth and innovation. Highlighting the Brigham Young University Partnership with local secondary physics teachers and Brigham Young University's Physics department. Examples of ideas developed in this partnership.

Session 3

Ideas and examples of the University Partnership. Conservation of Energy, apparatus, and model for success. Conservation of Momentum: an exciting collision. Other highlights of the partnership.