Physics- Energy Transfer

Students will learn about insects and how they interact in fields. This class will stay focused on the use of energy by insects and humans. We will look at how the sun creates heat and power. Students will spend time learning about the different plants and insects that they see in open fields and meadows. They will then be able to travel to different fields to collect and explore those insects and plants. They will choose an insect or plant from that environment to study and learn about. We will use these insects as case studies to learn about motion, energy, and automata, and solar power. After the final model is completed, students will be mounting their solar powered automata in the park or field that they found or collected their insect. Signage and educational content will be created by the students for each automata and checked for accuracy by an entomologist on staff at the Philadelphia Insectarium and Butterfly Pavilion.

Day 1: Insects and Interaction in the Fields
Day 2: Use of Energy by Insects and Humans
Day 3: Heat and Power of the Sun
Day 4: Plants in Open Fields and Meadows
Day 5: Choose Insect Case Study
Day 6: Motion, Energy, Automata, and Solar Power
Day 7: Planning of Build
Day 8: Collecting Materials
Day 9-10: Building Solar Powered Automata
Day 11: Presentation
Day 12: Careers in Physics and Engineering