



4th Grade: Lickety-Split

Course Description: Safety first! Over the course of two days, our educators will enhance your students' understanding of science concepts such as kinetic and potential energy, work, and force as they explore and observe the various effects of these fundamental powers in our universe.

Day 1: In this lesson, students will explore how potential energy is stored and then transferred to kinetic energy.

Demonstration: Students will build a Cobra Weave to observe how potential energy is transferred to kinetic energy. They will weave together craft sticks, storing potential energy inside them. As soon as the sticks are released, that energy transfers to kinetic energy as the sticks fly everywhere. We will also exhibit how to transfer kinetic energy between moving objects by dropping a small ball on top of a larger ball while both are bouncing. Students will observe the transfer of kinetic energy as the second ball travels much higher than the large ball after the bounce.

Day 2: One of the biggest ways shock absorbers work is by distributing force over a longer distance. In this lesson, students will learn the scientific meaning of work, how to calculate it, and how we can use it in our everyday lives to make life easier and safer for us.

Demonstration: Using a giant lever, students will observe one of their own classmates getting lifted into the air by another classmate. This demonstration is a great example of how simple machines use the concept of work to make our lives easier.