Purpose of Magic Mountain Field Trip

Why a Laboratory Experience at Magic Mountain?

Teaching physics effectively can be an extremely difficult task. All people form their own understanding about the way the world around them works. This understanding begins forming when we are infants and continues as long as we continue to have new experiences. Unfortunately, since we don’t have the knowledge and the critical thinking skills as infants and young children, humans tend to form misconceptions about the way the world works. This makes the task of the physics teacher double difficult as they have to not only to teach the students the concepts in physics but also to unseat their misconceptions so they can retain this new information. Research has shown this to be possible if the students are provided with real world examples and demonstrations that allow them to actually touch, feel and experience the concept as they learn it. To effectively learn physics, students must have the opportunity practice physics.

We spend over half the year in physics studying the concepts of motion. The Scottsdale physics teachers have spent many hours writing laboratory experiments for the students to accomplish while at Magic Mountain that take all of these motion concepts and reinforce and tie them together in a truly awe inspiring learning experience. The labs make the students think about, measure and calculate forces and accelerations that the riders experience all while they are experiencing it themselves. The students get to experience in a larger than life, real world example the very motion they are simultaneously calculating.