

Coconino High School
Weekly Learning Guide

Course	English	Week Assigned	April 27-May 1
Lesson Title	Force and Motion		
Teacher(s), Email, & Other Contact Information	Gina Kugler, gkugler@fUSD1.org		
Target Standards	Essential HS.P3U1.6 <u>Collect, analyze, and interpret data</u> regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.		
Learning Goal	Define problems and design solutions pertaining to force and motion.		
Essential Questions	Scientists: people who ask questions, experiment and explain the world around them • Engineers: people who design and build things to solve specific problems • Engineering Design Process: a set of steps engineers use to propose solutions to problems • Constraints: limitations or restrictions		
Learning Activity	Using the Nearpod lessons, students will follow the lesson and answer the question.		
Resources	https://share.nearpod.com/vsph/22xicqTQMmu https://share.nearpod.com/vsph/2lmcg1IFMu		
Links to Printable Materials	This does not require printable materials. If you do not have access to the Nearpod you can: Present a challenge for your child: in one hour, how many activities can he or she do that require pulling or pushing? Have your child brainstorm different activities before beginning their time. Can they push a stroller or cart, or pull a suitcase or box? Have your child think of different activities and then try to fit as many as he or she can in an hour. Be sure your child records his or her activities in a notebook. After time is up, review the activities. Which required the most energy to push or pull? Why? What activities were easy, and what were made difficult by friction? Give your child a block or a toy car to push across different surfaces. He or she can push the object across the rug, a sweater or sweatshirt, a smooth desk, a rubber mat, or, if possible, on the ground outside on dirt or sand. Encourage your child to push in the same way with the same strength. When was it easiest to push the item? When did the item move the fastest? Try measuring the pushes to find out when it traveled the farthest. Discuss how friction is a force that slows down moving things, and how friction is useful in your daily lives. Ideas from Educators.com		
Extension & Enrichment	Pushes and Pulls , Science Buddies		