

- **Lego Pulley Activity:** One of the lifts just broke down in a critical area at the Big Dig. It will take a week to repair the lift, and construction must go on. Bags of concrete that weigh 75 pounds each must be lifted from the ground to a platform 100 feet in the air. One of the engineers on the project suggests that they use pulleys to lift the bags onto the platform. Unfortunately, the only suitable weight for the task is 50 pounds. Sketch out a pulley system that will allow them to lift the 75 pound bags of concrete with 50 pound weights.
- **Instructions for Assessment:** Be fair and consider how the scale (1-7) translates into a grade out of 10 points (which is 1/12 of the final grade). Consider the original assignment...Consider the pulley and gear designs that you worked on over the last week. How did you and the other group members attempt to come up with a solution to the problem? If you were not able to come up with a solution, what prevented you from doing so? If you did come up with a solution, how did you arrive at it? What were the intermediate steps and how did you get from one step to another? Present evidence about what your partners were thinking during this process. You should include your own explanations of your understanding of these systems, and your understanding at the end of the experiment. Reference chapter 2 of How People Learn.

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