

S T U D E N T H A N D O U T

Student Name: _____

Pulley Test

- 1 What is the purpose of a pulley?
- 2 What does a flagpole, a sail on a boat, mini-blinds, and a construction crane have in common?
- 3 What is the formula for Mechanical Advantage?
- 4 How can knowing this formula help you to construct an effective simple machine? (Effective would mean that it fixes your problem with as little effort as possible, and within your circumstances.)
- 5 What is a downside of a pulley which reduces the required force?
- 6 In what unit is the force in and force out measured?
- 7 What is one downside to a moveable pulley?



V O C A B U L A R Y



1 Pulley

6 Support ropes

2 Fixed pulley

7 Force in

3 Moveable pulley

8 Force out

4 Simple Machine

9 Newton

5 Mechanical advantage

10 Work



STUDENT HANDOUT



Student Name: _____

Presentation Guide

- 1 What was your situation?
- 2 Sketch your suggested solution.
(pulley model)
- 3 Does your system reduced force?
(Support this by using the calculation for
mechanical advantage).
- 4 Does your system use a change of
direction?
Why or why not?

