

Name \_\_\_\_\_

Date \_\_\_\_\_

## Simple Machines Home Practice

### Section One: Levers

Create two different lever diagrams Use different classes for each

Make sure to include the location of the following

- a) fulcrum
- b) effort force
- c) load
- d) class of lever: first, second or third

What is the mechanical advantage of a first class lever?

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Identify the following Levers: Write First Class, Second Class or Third

Class in the space provided

Hockey Stick \_\_\_\_\_ Class Lever Paper Cutter \_\_\_\_\_ Class Lever

Wheel Barrow \_\_\_\_\_ Class Lever Fishing Rod \_\_\_\_\_ Class Lever

Book Cover \_\_\_\_\_ Class Lever Scissors \_\_\_\_\_ Class Lever

## Section Two: Pulleys

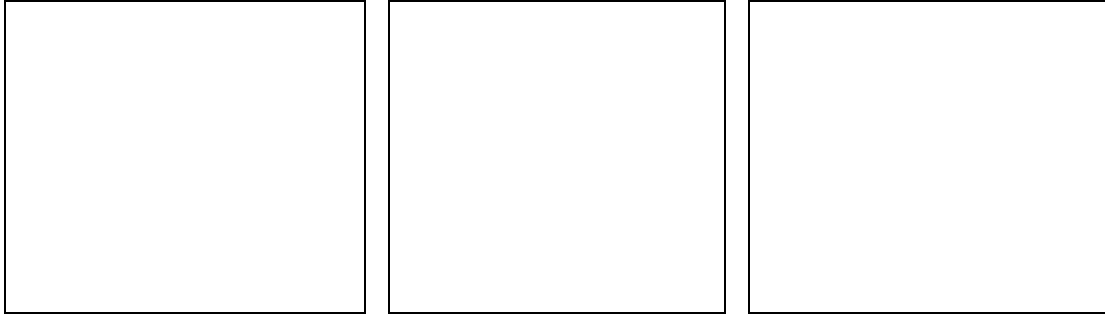
Complete the following chart

	Fixed Pulley	Moveable Pulley	Combined Pulley
Illustration			
Advantages		Reduces the amount of effort force required	
Disadvantages		You have to pull in the same direction as the load is being lifted	

### Section Three: Incline Planes and Screws

Mr. Mr. Borschma needs to bring his priceless signed David Beckham poster down from their hiding shelf on top of Smythenholtzen's cupboard

Create three simple sketches showing three different incline planes he can use to retrieve his poster safely



Provide a situation where a screw would be preferable to a nail:

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What is the advantage of a nail over a screw?

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List 4 different types of screws

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,

## Section Four: Wedges and Wheels and Axles

How does a wedge work? Complete the following sentence filling in the missing words:

A wedge works when you push on its \_\_\_\_\_ part. This gives you a mechanical advantage by changing the \_\_\_\_\_ of your \_\_\_\_\_.

There are two types of wedges. Most wedges, like the blade of an axe, are \_\_\_\_\_incline planes put together. These wedges are used to \_\_\_\_\_.

Other wedges, like a doorstop, have only one incline plane. These wedges are used to \_\_\_\_\_ or stop objects from moving.

### Trivial Pursuit

1. If you had a golf ball and you wanted to hit it as far as you possibly could with your golf club, what class lever would you use? \_\_\_\_\_
2. Human teeth are examples of this simple machine: \_\_\_\_\_
3. An ulu is an example of this type of simple machine: \_\_\_\_\_
4. If you wanted to pry a rock up to look under it, what type of simple machine would you use? \_\_\_\_\_
5. A door handle is an example of this type of simple machine: \_\_\_\_\_