Name \_\_\_\_\_

Date \_\_\_\_\_

### Simple Machines Test

#### Section One: Levers

Without using the same class of lever, create two lever drawing in the space below

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 second class lever?

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

Class in the space provided

Hockey Stick	Class Lever	Chop Sticks	Class Lever
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Wheel Barrow \_\_\_\_\_ Class Lever Golf Club \_\_\_\_\_ Class Lever

Teeter-Totter \_\_\_\_\_ Class Lever Cupboard Door \_\_\_\_\_ Class Lever

## Section Two: Pulleys

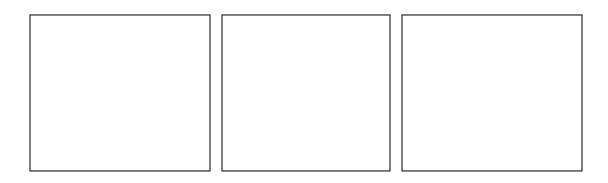
# Complete the following chart

	Fixed Pulley	Moveable Pulley	Combined Pulley
Illustration			
Advantages			Reduces the amount of effort force required Allows you to lift in the opposite direction of the load being lifted
Disadvantages	You still use the same amount of effort force you would have used without the pulley		

### **Section Three: Incline Planes and Screws**

Mr. Smitoesma needs to bring his priceless cheese down from their hiding shelf on top of Mr. Borsmith's Cupboard

Create three simple sketches showing three different incline planes he can use to retrieve his diamonds safetly



What is the main advantage of an incline plane?

What is the advantage of a screw over a nail?

List 4 different types of screws

### Section Four: Wedges and Wheels and Axles

What two different functions do wedges have?

Wedges \_\_\_\_\_

Wedges \_\_\_\_\_

List 4 different types of wedges

A window opener like the one found in this room is a compound machine. List all of the simple machines it is made up of

### **Trivial Pursuit**

- 1. If you had a baseball and you wanted to hit it as far as you possibly could, what class lever would you use?
- 2. A thirsty boy or girl standing in front of a deep well would be wise to choose a \_\_\_\_\_\_ to retrieve a bucket of water
- 3. If you wanted to fetch a dictionary from a high shelf, what simple

machine would you create?

- 4. If you wanted to hold a door open, what simple machine would you use?
- 5. A fishing rod is what class of lever? \_\_\_\_\_