Physicist: _____ Period: _____ Date: _____

Unit 6: Mechanical Waves

The Pendulum Lab #2

Introduction

Time can be defined as how long it takes for an event to occur. It is measured in seconds, minutes, hours and years. Since ancient times, people have used sundials, lunar cycles, tree carvings, the position of the stars and shadows to tell time. In the early 1600s, Galileo was the first to study the Simple Pendulum in terms of a timing device. He discovered that for a simple pendulum, its Period, the time for one complete swing, is independent of the pendulum's mass yet dependent on the length of the pendulum.

Purpose

In this activity, this relationship between the mass of a pendulum and its Period will be verified.

Materials

You will be using materials from your Physics Bag of Goodies and a timing device - your cell phone, a clock, a watch, a sand-hourglass, etc.

Safety Notice

Make sure you are not swinging your pendulum close to anyone's face!!!

Procedure

This will be developed with your lab group.

Data Table

Setup for this will also be developed with your lab group. Data will be collected individually. Data may be recorded in a rough form initially. However, a final data table that neatly and clearly summarizes the collected data should be present.

Analysis

A graph will be produced using the data that was collected. Include this graph, as well as any other calculations performed, in order to determine the relationship between the mass of your pendulum and its Period.

Conclusion

Restate the purpose and use evidence from the collected data to support the relationship that was determined in the lab. The evidence-reasoning-conclusion format will be discussed and used for this component of labs.