

# [Physics pendulum lab](https://assignbuster.com/physics-pendulum-lab/)

Katherine Unman Introduction/Purpose: Pendulums serve a huge purpose that are often overseen by many due to technological advancements being made In the everyday world. A simple pendulum consists of a small object (the " bob") suspended by a lightweight cord. The mass oft he pendulum is actually only the mass of the bob; the mass of the string is not included. The period of a pendulum is the amount of time for the bob to complete exactly one cycle or oscillation back and forth.

The length of the pendulum extends from the attached end of the string to the center of mass of the bob. The original aim for this investigation was to " Investigate the simple pendulum". There are many variables on could look Into, such as displacement, angle, damping, mass of the bob etc. The most Interesting variable, however, Is the length of the swinging pendulum. The relations p between the length and the time for one swing (the period) has been researched for many centuries, and has allowed famous physicists like Isaac Newton and Galileo

Galilee to obtain an accurate value for the gravitational force acting on it, " g". Len this simple investigation, we performed two activities to visually observe what affects the period off pendulum, mass or the length of the string. Hypothesis: With our previous knowledge of pendulums and the forces acting on a pendulum, we hypothesized that the length of the string along with gravity would affect the period a ND the mass of the bob would not. Materials: In order to complete a successful Investigation, numerous supplies were needed.

Without these materials, our observations would not have been as accurate. The mat aerials we used are: 1. Meter stick 2. Stopwatch 3. Pieces of string, 3 of the same length, and one off different length 4. Washers 5. A partner 6. Pen/pencil Procedure: When effectively Investigating what affects the period of a pendulum, some simple ye vital steps are necessary to follow. In this experiment, two activities were performed t hat share a set of Instructions. These were: 1. Gather all the materials