ab Activity: Swing Time Period_____ Date_____

ameworks Code)

Purpose: To develop and test a hypothesis.

Materials: ring stand, ring clamp, 5 metal washers, large paper clip, 50 cm length of string, stopwatch

Procedure:

1. Read the whole procedure. Write a hypothesis describing how the mass of the pendulum bob will affect the speed of its swing. _____

   _____
2. Tie one end of a string to a ring clamp on a ring stand. Tie the other end of the string to a large paper clip. Pull out one side of the paper clip to serve as a hook.
3. Place a metal washer on the hook, and let it hang down. If necessary, raise the ring clamp so that the bob swings freely.
4. Pull the bob to the side so that the string makes an angle of about 45° with the ring stand. Measure the height of the bob above the table top. In the space provided above the data table, record this height as the starting position of the bob.
5. Release the bob gently, without pushing it. During a complete swing, the bob will move from its starting position and back again. Measure the time it takes for 10 complete swings, and record this time to the nearest 0.10 s in the data table.
6. Find the average time for one swing by dividing the total time by 10.
7. Repeat steps 5 and 6, increasing the mass of the bob each time by adding a washer. **Make sure you always start the bob at the same height.**

Data: starting position (height) of the bob: _____

Data Table:

Number of washers	Time for 10 swings (s)	Average Time for each swing (s)
1		
2		
3		
4		
5		

Related Questions:

1. According to your data, was your hypothesis correct? _____
2. What conclusion can you draw from this experiment? _____

   _____

   _____

Related Questions:

1) What is was your hypothesis for this investigation?

2) What was the independent (manipulated) variable?

3) What was the dependant (responding) variable?

4) What was the conclusion your group came up with?

5) What are 2 possible sources of **inaccuracy** in this investigation?

A)

B)