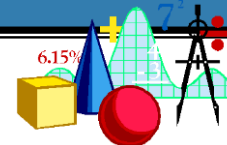


Mathematics, Grade 8

Unit XII: Lesson 5

Demonstration / Table / Poster: **Pendulum Probe**



A pendulum is a suspended weight, free to swing from a fixed point. You are to develop a formula to determine the relationship between the length of a weighted string and the number of swings in a given time.

Make a pendulum. Time the number of swings in a given time period or the time required to complete 20 full swings. Record the data in a table. Vary the length of the string and repeat as many times as necessary to develop a clear pattern. Analyze the data and write a formula to describe the relationship you observed.

Experiment to see what effect changing the weight has on the time of the swing. Record your observations. Predict what will result from increasing the size of the swing. Test your hypothesis.

Demonstrate your experiments for the class. Display the tables of data and formula in an attractive poster.