

Horizontal Kinetic Friction Lab

Friction causes any object to slow to a stop given no other forces. Consider a block of wood sliding on a floor, once an object has been accelerated (pushed) and leaves contact with the force, the only force acting on the object is friction. For this lab, you will be determining the coefficient of kinetic friction between a block of wood and the floor.

Using a block of wood, stop watch, scale and a meter stick only, you and your lab partners are to design an experiment to determine the coefficient of friction between a block of wood and the floor. Your team must:

Write a detailed description of the process by which you conducted your experiment including anything you did to reduce human error. Hint: You will have to do some calculations of linear motion in order to find the information.

Clearly and neatly identify any data collected.

Show all calculations performed

Collect the coefficients of kinetic friction found for at least 3 other lab groups and compare your coefficient of friction to those of other lab groups.

Write a detailed conclusion discussing how this experiment used the knowledge learned in the current unit and Newton's Laws of Motion. You should include the coefficient of kinetic friction you calculated and discuss how your coefficient of friction compares with those of the other lab groups.

Only one lab report is required for each lab group. It must be typed with one inch margins and 12 point Times Roman or Arial Font. Make sure that everyone's name is on the lab and that everyone agrees completely on the contents of the lab report. A signature on the lab report implies that you are happy with the contents and will accept the grade that the group gets.