



Experiment 1: Page 36

Aim: To investigate the relationship between the magnitude of the applied force and the static frictional force of a system.

Investigative question:

What is the relationship between the magnitude of the applied force and static friction in a system?

Hypothesis:

The static friction increases when the applied force increases.

Variables:

Independent variable (Which is changed.)	Dependent variable (Which is measured.)	Controlled variable(s) (Which remain(s) the same.)
Applied force	Static friction force	Surface areas Apparatus

Results:

Mass of mass piece and scale pan (kg)	F_T (N) ($F_T = mg$)	Weight of wooden block ($w = mg$) (N)	F_N (N) ($F_N = w$)	f_s (N)	Motion (does not move, moves)

Conclusions:

Just before this block starts to move, the applied force is equal to the static frictional force.