

Paper work 1

Name :

Class :

Title :

The Newton's Second Law



Question:

What effect does the varying force and varying mass have upon the acceleration?

Purpose:

To use experimental data to determine the mathematical equation which relates force, mass and acceleration.

Data section:

LINK :

table 1 : varying the force

Applied Force (N)	Mass (kg)	Net Force (N)	Velocity-time Information	Acceleration (m/s^2)
10	2		$t = 1 \text{ s}$, $v =$ m/s	
20	2		$t = 1 \text{ s}$, $v =$ m/s	
30	2		$t = 1 \text{ s}$, $v =$ m/s	
40	2		$t = 1 \text{ s}$, $v =$ m/s	

table 2 : varying the mass

Applied Force (N)	Mass (kg)	Net Force (N)	Velocity-time Information	Acceleration (m/s ²)
30	1		t= 1 s , v= m/s	
30	2		t= 1 s , v= m/s	
30	3		t= 1 s , v= m/s	
30	5		t= 1 s , v= m/s	

Conclusion

When the force increases, the acceleration become

Discussion of Results

Based on the data, the effect of mass on the acceleration is :