Name_____Block_____Date_____

Ch 4 Newton's 1st Law
Study Guide

Mrs. Peck

Objectives:
Describe Galileo's contribution to the science of motion. (4.3)
State Newton's first law of motion and explain it using "numeric" examples. (4.4)
Distinguish among mass, volume, & weight, & their SI and other units of measurement. (4.5)
Using the metric system, convert mass given in grams to kilograms and vice a versa. (4.6)
Find the magnitude of the resultant of vectors in a free-body diagram. (concept dev. practice pg 4-2)
Use the concept of inertia to explain why a bowl of water does not fall when you pull a table cloth out from underneath it. (activity in class)

Vocabulary: Memorize the definitions for the following vocabulary terms.

equilibrium	mass	newton	friction
Newton's First Law	weight	force	normal force
inertia	kilogram	net force	
law of inertia	volume		

	symbol	SI unit	other unit(s)
weight	w	N newton	kg m/ s^2
force	F	N newton	kg m/ s^2
mass	m	kg kilogram	g
volume	V	l liter	ml
gravitational acc.	g	m/ s^2	m/ s^2
gravitational force	F_g	N newton	kg m/ s^2
applied force	F_{app}	N newton	kg m/ s^2
normal force	F_n	N newton	kg m/ s^2
frictional force	F_f	N newton	kg m/ s^2
tension force	F_t	N newton	kg m/ s^2

Formulas:
know and how to use: w=mg

Text Figures: fig. 4.3, fig. 4.7, fig. 4.10, fig. 4.12, fig. 4.4, fig. 4.9, fig. 4.11, fig. 4.17

Yellow Questions: pp46,48,50,51,52 **Text:** sections 4.1-4.8 (pp. 43-54)

Text Questions: p56-57 # 1-17,20-25

Concept-Development Practice WS 4-1: Review the handout.

Handouts: Physics Classroom Website Webquest
Net Force and Vectors WS