Gravitational Forces

It is expected that students will demonstrate an ability to apply in a variety of situations concepts related to the force of gravity.

PLO	Reading			Practice			
	Hewitt	Heath	Handout	Hewitt	Heath	Worksheet	Lab
define *gravitational field strength*	12.1,2,3 13.1	5.1 5.2		Ch 13 p.196 R #1,2,3,4,5 TE #1,2	Ch 5 p.91 R#4,5,6		✓
use the gravitational field strength to relate the mass of objects to the force of gravity (weight) acting on them	4.5 12.4 13.1	5.2		Ch 12 p.181 TE #3	Ch 5 p.77 Prac #1,2,3 Ch 5 p. 92 R#1,2,3		✓
demonstrate that the force of gravity between two objects is an inverse square law with respect to distance	12.5	5.3		Ch 12 p.180 R#9-12, **13*** TS#3	Ch 5 p.80 Prac #1,2,3,4 Ch 5 p. 92 R#7,8		
solve problems involving Newton's law of universal gravitation for: force, mass, distance of separation, & universal gravitational constant		5.4 5.5		Ch 13 p.197 R# TE#3 TS#1,2,3 Ch 12 p.180 PC#1,2,3,4,5,6 TE#1,2,6,7,9 TS#2,4,**5***	Ch 5 p.83 Prac #1,2,3 Ch 5 p. 92 R#10,11,12		

Friction Forces

It is expected that students will demonstrate an ability to describe and apply the concept of friction to everyday situations and determine the factors that affect it.

PLO	Reading			Practice			
	Hewitt	Heath	Handout	Hewitt	Heath	Worksheet	Lab
distinguish between static and kinetic friction		5.6	✓	Ch 5 p.71 R#8,9 TS#1		✓	
compare the effects of the normal force, materials involved, surface area, and speed on the force of friction	5.4		✓			✓	✓
define *coefficient of friction*		5.6	✓				
solve problems involving objects sliding on horizontal surfaces for: force of friction, coefficient of friction, & normal force		5.6	✓		Ch 5 p.86 Prac #1,2,3 Ch 5 p.92 R#14,15,16,17	✓	

Elastic Forces

It is expected that students will demonstrate an ability to describe and apply Hooke's law to everyday situations.

PLO	Reading			Practice			
	Hewitt	Heath	Handout	Hewitt	Heath	Worksheet	Lab
use appropriate materials to verify Hookes law							✓
solve problems using Hooke's law that involve: force, spring constant & distortion	18.3	5.7		Ch 18 p.264 Q#1,2 Ch 18 p.271 R#12 TE#3,4	Ch 5 p.88 Prac #1,2,3 Ch 5 p.93 R#18,19,20		
relate Hooke's law to situations in their homes and community	18.4			Ch 18 p.271 R#9,10,11,13 TE#6			