

AP PHYSICS: UNIT 2 - NEWTON'S LAWS

MR. DARLINGTON

Topic (Percent of AP Exam)	Reading	HW Problems	
4. NEWTON'S LAWS OF MOTION: STATICS AND DYNAMICS (9%)		<i>Chapter 4</i>	2 WEEKS
4.1 Force	4.1	<u>page 98</u>	
*Definition of force		6	
4.2 Newton's First Law of Motion	4.2	8	
*Contrast Aristotle's and Galileo's views of motion		9	
*Statement of Newton's first law of motion		12	
*Definition of inertia		<u>page 99</u>	
4.3 Mass	4.3	16	
*Definition of mass and standard units of mass		25	
4.4 Newton's Second Law of Motion	4.4	<u>page 100</u>	
*Statement and equation of Newton's second law of motion		26	
4.5 Newton's Third Law of Motion		29	
*Statement of Newton's third law of motion		<u>page 101</u>	
*Examples of this law		34	
4.6 Weight - The Force of Gravity and The Normal Force		<u>page 102</u>	
*Calculation of weight using the acceleration due to gravity		48	
*Discuss the value of g near the surface of the earth		50	
*Definition and discussion of the normal force		51	
4.8 Applications Involving Friction, Inclines		52	
*Definition of kinetic friction and its relationship to the normal force between surfaces		53	
*Definition of static friction			
*Coefficients of static and kinetic friction			
*Normal and frictional forces on an inclined plane			

NEWTON'S LAWS EXAM AND PROBLEM SET DUE DATE: FRIDAY, OCTOBER 12, 2007