

Name _____

Period _____

Forces Contract

Homework

- ___ HW 4A: Read 4.1 - 4.5 E 5,6,19, 21,22,28,29 (*Newton's 2nd Law*)
- ___ HW 4B: Read 4.6, 7 E 37,39,42,43,48 (*Free fall, air resistance*)
- ___ Friction Worksheet
- ___ Friction Worksheet II (*Review*)
- ___ F=ma I (*F=ma with multiple forces*)
- ___ F=ma I 1/2 (*F=ma with multiple forces*)
- ___ F=ma II (*Review F=ma with multiple forces*)
- ___ F=ma III (*F=ma with kinematics*)
- ___ F=ma IV (*Review F=ma with kinematics*)
- ___ A&B: F=ma V (*F=ma with multiple bodies*)
- ___ A&B: F=ma VI (*F=ma with multiple bodies*)
- ___ F=ma VII (*F=ma review*)
- ___ F=ma VIII (*F=ma review*)
- ___ CD 5-1 (**Conceptual Development Workbook**)
- ___ CD 5-2
- ___ CD 5-3
- ___ CD 5-4 (*recommended*)
- ___ Concept Map
- ___ Class Notes
- ___ Statics Review Problem Set
- ___ Current Events
- ___

Labs

- ___ Friction Activity
- ___ Newton's 2nd Law Activity
- ___ Forces Station Lab I
- ___ Forces Station Lab II
- ___
- ___

Self

Teacher

CONTRACT GRADE ___ ___

Grade is based on a total of 17 items.

Total number of items: _____

Essential Questions:

What is Newton's 2nd Law? What is the relationship between an object's acceleration, its mass and the force acting on it? Will any force cause an acceleration or only net forces?

Why do heavy objects fall with the same acceleration as light objects? When do objects *not* fall with the same acceleration? What factors affect air resistance? What is terminal velocity? Why do different objects have different terminal velocities?

What is friction? What is the coefficient of friction? What is the difference between static and sliding friction? Which is larger? Why?

Things You Should Be Able to Do:

Calculate the force of friction using $F_f = \mu F_N$

Create a free body diagrams for one or more accelerating objects, including inclined plane problems.

Solve problems using force components and the equations for $\Sigma F = ma$ for x and y axes or parallel and perpendicular axes (inclined plane problems).

Solve problems combining $\Sigma F = ma$ with Kinematics equations.

Monday	Tuesday	Wednesday	Thursday	Friday
10/26	10/27 HW 4A	10/28 FBD I	10/29 FRICTION WORKSHEET	10/30 FBD I 1/2
11/2 HW 4B	11/3	11/4 FBD III	11/5	11/6 FORCES TESTS