Name _____ **Period** _____

Energy Contract

Classwork / Homework

___ ☐ **HW 7A: Read 7.2-7.4 R11,14,19 E14,22,24,35,36** ***(Power, PE, KE, Conservation)***
___ ☐ **Energy Set-up I**
___ ☐ Energy Set-up II
___ ☐ **Energy I** ***(Ideal Energy Conservation)***
___ ☐ **Energy II** ***(Energy Conservation)***
___ ☐ Energy III *(Energy Conservation Review)*
___ ☐ A&B: Energy IV
___ ☐ A&B: Energy V
___ ☐ CD 8-1
___ ☐ CD 8-2
___ ☐ Rube Goldberg Analysis
___ ☐ Work Retest Problem Set
___ ☐ Algebra Review Problems
___ ☐ Sensei Physics
___ ☐ **Current Events**
___ ☐ **Concept Map**
___ ☐ **Class Notes**
___ ☐
___ ☐

Labs

___ ☐ **Stairway Activity**
___ ☐ **Energy Station Lab I**
___ ☐ **Energy Station Lab II**
___ ☐ Machines at Home Activity
___ ☐ Rube Goldberg Activity
___ ☐
___ ☐

Self ___ ***Teacher***

CONTRACT GRADE _____ _____

Grade is based on a total of 14 items. Number of items completed: _____

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Essential Questions:

What is power? How is it different from work? How is it calculated? What is a kiloWatt-hour?

What is mechanical energy? What is gravitational potential energy (PE)? What is kinetic energy (KE)? What is elastic potential energy (EPE)? What is the relationship between work and mechanical energy? What is the relationship between kinetic energy and speed (how far will you skid if you are traveling twice as fast?)

What is the law of conservation of energy? What is the difference between conservative and non-conservative (or dissipative) forces? How does mechanical energy get lost to "non-conserved" energy, like heat and sound?

What are simple machines? What is mechanical advantage? How can you determine the mechanical advantage of ramps, pulleys and levers just by looking at each of them? What is efficiency? What makes things inefficient?

Essential Skills:

Use the following equations:

$$W = F\,d \qquad GPE = mgh \qquad KE = 0.5\,mv^2 \qquad Heat = F_f\,d$$

Be able to solve complex problems using the Law of Conservation of Energy.

$$W + PE_i + KE_i = PE_f + KE_f + Heat$$

Monday	Tuesday	Wednesday	Thursday	Friday
1/4	1/5 HW 7A	1/6	1/7 ENERGY I	1/8 ENERGY II
1/11	1/12 CURRENT EVENTS DUE	1/13	1/14 ALL OPTIONAL WORK DUE REVIEW	1/15 ENERGY TESTS CONTRACTS DUE

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