Physical Science Guided Reading

NAME DATE PERIOD

Section 4.2 – Conservation of Energy, pp. 107 – 115

1. Briefly describe the energy transformations originating from when you consume food.
2. What does “Mechanical Energy” directly relate? Use the words “gain”, “loss”, and “total” in your description.
3. Relate the KE and PE in a system like a pendulum or a basketball free throw. Include the words “highest”, “lowest”, “slowest”, and “fastest” in your descriptions.
4. Briefly state the Law of Conservation of Energy.
5. Explain how friction seems to “steal” energy from energy conversions.
6. Einstein’s famous formula E=m*c*2 related energy to mass for fusion in stars and nuclear fission (very rare cases, here on Earth!). How much pure energy results from 1 kg of mass accelerated to the speed of light (*c* = 300,000,000 m/s)? DON’T FORGET THE SQUARED SIGN!!
7. Explain how molecules of Hydrogen in Sol (the Sun) become a kiss (minimum 8 steps).