## A Physics Interactive Quiz: Energy Name:

|       |    |     |   | <del>9</del> |        |     |   |                         |
|-------|----|-----|---|--------------|--------|-----|---|-------------------------|
|       | #  | 6   | question  | Answer       |        |     | 0 | <score< th=""></score<> |
|       |    |     | grams is the mass of a bullet shot from a<br>gun with a barrel 40 cm long, with Vf of 400<br>m/s. Find the force on the bullet                          |              |        |     |   |                         |
| #     | 1  | 600 |   |              | 120000 | 100 | 0 |                         |
|       |    |     | Find the final KE for the bullet  |              |        |     |   |                         |
| #     | 2  | 600 |   |              | 48000  | 100 | 0 |                         |
|       |    |     | Find the ultimate altitude of the bullet if shot upwards  |              |        |     |   |                         |
| #     | 3  | 600 |   |              | 8163.3 | 100 | 0 |                         |
| щ     | 4  | 600 | find the speed of the bullet after being shot<br>through a 4 cm door where the Ff was -2000<br>N  |              | 200.67 | 100 | 0 |                         |
|       |    |     | is the vertical height of a 40° slope 60 kg<br>Kenny skis on his snowboard. Find his PE<br>at the top of the hill                                       |              | 399.67 | 100 |   |                         |
| #     | 5  | 480 |   |              | 282240 | 100 | 0 |                         |
| #     | 6  | 480 | FInd his KE at the bottom of the hill   |              | 282240 | 100 | 0 |                         |
| #     | 7  | 480 | find his velocity at the bottom of the hill   |              | 96.995 | 100 | 0 |                         |
|       | 8  | 30  | N/m is the k for a spring that is compressed 30 cm to shoot a ball of mass 180 grams. Find the velocity of the ball                                     |              | 3.8729 | 100 | 0 |                         |
|       |    |     | meters is the height of a hill Ben runs up in 7.5 seconds. Find his horsepower if his mass is 75 kg   |              |        |     | - |                         |
| #     | 9  | 24  |   |              | 3.1528 | 100 | 0 |                         |
| #     | 10 | 100 | Newtons is the frictional force overcome at a constant velocity of 4 m/s for someone pushing their car along a road. Find the power dissipated as heat. |              | 432    | 100 | 0 |                         |
| $\pi$ | 10 | 100 | {r <del></del>  | {            | 732    | 100 | U | 1                       |

## Extra Credit: