Name: _____ Date: _____

GENIUSCHALLENGE

POTENTIAL VS KINETIC ENERGY

1. What are some observations we can make to determine if something has energy?

_____

2. When an object moves, where does the energy come from? _____

_____

3. Where does a spring in a ball point pen or a pogo stick get its energy? _____

_____

4. Explain how the end ball on the right of a Newton's cradle moves when the end ball on the left was lifted and released. _____

_____

5. Why do the balls of the Newton's cradle eventually stop? _____

_____

6. How could you decrease the amount of energy an object has? _____

_____

7. The relationship between kinetic energy and speed is _____ proportional.

8. A graph of KE vs the mass of an object is _____.

9. In order for a roller coaster to work, why does the hill the cart climbs need to be higher than the top of the loop? _____

_____

10. What are two ways engineers use their understanding of KE and PE to make their designs better/safer?

_____

_____