Modeling/KE Questions Name_____

1) How is a dynamic model, like the one we used to model the superball, different from a conceptual model, like the various historical models of the atom we learned about in the Atomic Theory unit (ie Plum Pudding model, Black Box Model, Bohr Model, etc.)

2) What are the two major factors that affect how much kinetic energy an object has?

3) You observe three things: a person sitting in a chair, and a dog chasing a car, moving at the same speed as a car. Which of those things have kinetic energy? Which has the most kinetic energy and why?

4) Things that roll come to a stop. You feel tired at the end of the day. Gasoline needs to be put into a car on a regular basis. Why do most things seem to lose energy? What happens to this energy?

5) When you put on the brakes to slow down a car, where does all the kinetic energy go? What do you think happens to the temperature of the brakes?

6) If atoms behave like superballs with 100% elasticity and you could directly observe atoms, would they more likely be in motion or standing still? Why?