Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Physics 11

**Worksheet 4.1**

**Newton’s First Law**

* Use Newton’s first law to explain why each of the following happens.
* Over the course of this worksheet, make sure you use all of the following words:

force, unbalanced, net, resultant, inertia, velocity, constant

* **Write in full sentences, please.**

1. While riding on a skateboard, you fly forward through the air when your skateboard hits a curb.
2. You’re drinking coffee in the passenger seat of a car as it cruises down the highway. The car suddenly speeds up and the coffee falls out the back of the cup and onto your lap.
3. During a car crash, the person wearing their seatbelt stays in the car, while the person without a seatbelt flies through the windshield.
4. When the car you’re in turns a sharp corner, you feel “pushed into the door”.
5. To dislodge ketchup from the bottom of a ketchup bottle, it is often turned upside down and thrusted downward at high speeds and then abruptly halted.