

### Physics in the News:

There are many events that occur in everyday life that involve physics, and many of them are talked about in the news without us realizing. Recently there was a big accident on I-495, last Thursday March 28<sup>th</sup>. This accident involved a tanker truck carrying thousands of gallons of fuel that overturned on the highway. The tanker has faulty brakes and the driver was coming up onto traffic and he couldn't stop in time, so he tried to turn the truck, but it fell onto its side instead of stopping. The driver of the vehicle was wearing a seatbelt and wasn't injured in the crash. The cars behind it couldn't stop in time so they ran into the truck.

This involves physics because each vehicle is in motion and they are all revolving around a certain force. Also, this situation involves physics because the driver wasn't injured because they were wearing seatbelt, this goes along with Newton's First Law. The person would keep moving at the same velocity with the car, but the seatbelt is an unbalanced force causing the person to stop moving which is why the driver didn't get hurt. Physics was also involved when the truck tried to stop but it veered off and rolled over on its side. According to Newton's second law force is mass x acceleration so the weight of the truck made it go on its side because it was heavy, if it was lighter it would've stopped a lot faster and easier because it takes more force to stop something with such a large mass. The cars that ran into the truck had to do with speed and time. The cars were going fast because it was a highway, so they needed more time to slow down without hitting the truck but in this case, there wasn't enough time or space, so it caused them to hit the truck.

Although the truck was bigger than the cars, they both have the same force during the impact because according to Newton's third law the forces when colliding are equal because they are colliding at the same time causing equal force, but they could have an opposite reaction. The opposite reaction is that the tanker won't move and then cars will crash and get damaged during the impact, due to their speed and size.

This topic was in the news because it was such a large truck and it cut off a major intersection that many people drive on. After investigating the accident police officers gave the driver of the tanker a citation for having faulty brakes because he didn't get them inspected. Something as simple as better brakes could've helped this situation. Many people would see this news story and not realize it relates to physics, I was one of those people too. Now throughout my day I think about many things that involve physics and it is really cool that almost everything we do day to day involves some sort of physics.

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#### Works Cited:

Reports, S. (2019, March 29). Woodbridge man cited for tanker-truck wreck that closed I-495 for hours Thursday. Retrieved from [https://www.princewilliamtimes.com/news/woodbridge-man-cited-for-tanker-truck-wreck-that-closed-i/article\\_6f413c0a-525d-11e9-b726-5397d881afc8.html](https://www.princewilliamtimes.com/news/woodbridge-man-cited-for-tanker-truck-wreck-that-closed-i/article_6f413c0a-525d-11e9-b726-5397d881afc8.html)