

The use of physics in daily activities essay example

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Physics is a part of natural science that entails study of matter and its movement around space, time and its relation to force and energy. Physics revolves around us in our day to day activities and without it; nothing can function or operate swiftly. Different significant contributions like understanding and advancements in electromagnetism have been fuelled by the unending knowledge of physics.

Scientist widely depends on physics and its theories to calculate the probabilities of future natural phenomena activities that might place. For example, in weather forecasting, use of rain gauges to measure the amount of rainfall at given time or use of wind socks to estimate the strength and direction of wind. This helps make living more comfortable since individuals can timely plan on their daily activities according to the weather condition predicted by weather forecasters (Dresselhaus, 2008).

As Isaac Newton states in his law of gravitation, gravity is quit essential for comfortable survival while on earth since without all substances being pulled to the earth centre, as in the case of the moon having less gravitation pull, everything would be floating on air. For example, imagine of a case where the tables and chairs hang on air. It would be very hand to work and put heads together since there is no permanent stable basement for operating the activities like placing of equipment. Another example is imagining of an apple or a mango ascending into the sky instead of falling to the ground as Newton explained in his law of gravity (Bloomfield, 2010).

Friction is another force in physics that is so essential in our daily life functioning. In its absence, walking could be next to impossible since there is no grip that holds the feet or rather the shoes firmly on the ground. On the

other hand, vehicle tires are striped and roughened to ensure a moving car doesn't slide unexpectedly on the road. Chewing is another activity that highly relies on friction since without the upper jaws and the lower jaws meeting and forcefully grinding the content in the mouth; one might have a rough time in swallowing which is also reliable on the force of gravity to slide down to the stomach (Dresselhaus, 2008).

In the entertainment sector, physics covers almost 90% of the production of entertainment gadgets like television sets, radio systems and projectors. For example, televisions relies on the magic of physics in a way that they receive signals through the antennae and convert them into electronic waves and eventually the television uses three colours blue, green and red to project the image. A section of the television called the shadow mask allows three electronic beams to hit the specific phosphor dots on the inside of the screen that relays the intended image to the audiences (Bloomfield, 2010).

Physics has made a gigantic effort in making working on hard tasks easier. Machines that use less energy and force to move or carry relatively heavier loads have been created through physics knowledge of pistons and pressure cylinders and this has highly helped in making work easier and saving of energy. For example, use of bearings to lift building materials up to higher floors. Cranes are also part of the good work of physics in making lifting and parking of heavy materials like arranging tree logs or crates of sodas in a systematic and orderly manner in minimal time (Dresselhaus, 2008).

The government greatly relies on physics in creation of international security weapons like bombs, missiles and grenades. It is physics that is used to create a small gadget that can clean a whole city into a flat dusty area. Guns

and grenades are created in a way that their detonation scatters the few metal crystals in very aggressive forces that can destroy massive masses. Apart from creating the bombs, physics has help come up with magnetic ways of detecting and diverting the same from hitting the targeted area. In the transportation sector, the vehicles engines are all created under the knowledge of physics. The turbines are modified in a manner that they move in a relatively high speed of about two hundred and fifty revolutions per second in an eight cylinder engine. This creates a relatively high force to propel the vehicle at very high speeds according to the intension of the driver (Bloomfield, 2010).

According to the Archimedes principle, a bathtub was filled with water to the brim and when he got into the tab, a specific amount of water flowed out. According to him, it was stated that the upward buoyancy force of an immersed body into water or any other liquid, is proportionately equal to the weight of the water or fluid it displaces. Production of electricity is another important aspect that is highly dependent on physics terminologies, laws and practices. This is usually attained by use of electromechanical generators that are mainly driven by chemical combustions, nuclear fissions or by heat engines. For example, power producing companies use the trick of alternating current power transmissions by use of power transformers to transmit high voltage electricity at a relatively low cost. Adding on the same point, they ensure that the resistance of the transmitting wires is in its utmost low resistance point to ensure that it losses very little or no power during electricity flow from the producer to the target consumer (Dresselhaus, 2008).

Apart from electricity, magnetism has been used in high revolutionising and the development of all fields of physics. The motor mostly designed under the electromagnetic induction phenomena are some of the mostly used machines. The magnetism knowledge from physics has helped us build very precise mechanicals systems that have largely boosted the stabilisation of the economy (Bloomfield, 2010).

It is through physics that our living standards have been improved and have become more comfy and tireless. In the current generation, human beings can store food for as long as they wish through use of refrigerators and freezers that are built under use of physics principles for future use. Laundry cleaning is now not a menace, thanks to physics for discovering the use of dry cleaners for faster, easier and more effective cleaning. Pressure cookers are also created using the law of physics that state liquids or fluids boil faster under high pressure (Dresselhaus, 2008).

Physics is not only applied in professional fields but also during play time, the law of action and reaction is experienced when an individual uses force to kick a ball. The energy from the leg is transferred to the ball making it to move to the navigation directed. Physics helps us understand that in life, energy is neither lost nor gained but transferred in a different form. This explains the bouncing of a ball when it hits a wall. We experience different forces while traveling by walking, running or even driving. Inertia being one of the forces is the resistance of an object to a change in its current of rest or motion. For example, when sited on the seat of a moving vehicle and it stops immediately; the body tries to remain on its current motion which forces the head of the passenger to lean forward. On the same note, if the car takes off

at a high speed, the passengers are forced to lean heavily on the seats since the body tends to obey the inertia law of resisting the change of its current rest (Bloomfield, 2010).

Centripetal force is the force experienced when an object moving in a circular motion accelerates. It normally doesn't matter if the object is moving around the circle's perimeter since there is still a proportionate change in velocity. This scientific phenomenon is usually used in scientific shows like "wall of death" also known as carnivore sideshows and circus bike tricks where the performers travel along a vertical wall and perform stunts as they are held by centrifugal force. We also apply physics in the use hydro cyclone whereby mixed liquids with different densities are put into a cylindrical device and rotated at very high speeds (Dresselhaus, 2008).

The liquid with the higher densities are force to the lower smaller part of the cylinder while the with lesser density float at the top of the hydro cyclone.

Looking at the agricultural sector, physics has saved large both large and small scale farmers a great deal of stress, energy and funds by inventing the pressure pumps that require a precisely little energy to pump water with very higher pressure. Through use valves located at different positions of the cylinders, intensely high pressure is built and in return forces the water through the slim exit at very high pressures (Dresselhaus, 2008).

In terms of security measures, physics has played a major role in discovering and formation of more effective gadgets that detect metallic weapons. The idea behind laser technology has greatly boosted enhanced security in public places like airports, supermarkets and stadiums. The effect of space shuttle launching is another evidence of action and reaction as Isaac Newton

explains. During the launching, the space shuttle emits burning gas at very high speeds; this gives the shuttle an aggressive push to the opposite direction as a result of reacting to the action of emission. The same case applies when one jumps from a motionless boat in water; the boat moves to the opposite direction from which the person is jumping to. Submarines entirely depend on physics law of reflection to see above water surface whereby they design a set of mirrors placed in a manner that they reflect light and images from corners (Bloomfield, 2010).

Conclusion

Physics plays a major role in the society and has greatly helped in making human lifestyle more comfortable in the society. The knowledge and application of principles of physics has in time proven to be a stepping stone for production of better quality and quantity products in spite of use of less raw materials and energy thus, studying of the subject and the subject related information should be encouraged in all learning institutions since more than 60% of the content learnt in the classes and lecture halls is applicable in real life situation.

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