

Real Life Applications of Work, Energy & Power

1) The conversion of energy between potential and kinetic energy, is constantly taking place on a roller coaster. When the carriage is at the top of a hill, it has high potential energy and low kinetic energy. When it reaches the bottom of a hill, it has very high kinetic energy and low potential energy.



2) Work is done when a force moves an object. An articulated lorry needs a large tractive force in order to pull a full trailer load. The lorry needs a powerful engine to do this work in a reasonable time.



3) The function of the air bag in a car is to minimise the impact of a collision on the driver's head. When the driver's head strikes the air bag, the length of time for the collision is lengthened, which reduces the overall force.



4) The design of helmets for contact sports and motor racing relies mainly on using methods to minimise the impact of forces. The use of padding inside the helmet and flexible material in the shell itself extend the time of a collision, so that the overall force is reduced.

