Define momentum?

Momentum is a vector quantity that expresses how much velocity an object has. It is represented by the symbol p and is defined as the product of an object's mass (m) and velocity (v). Momentum (p) can be mathematically stated as follows: p = m \* v, where p denotes momentum (in kilogram meters per second, or kg\*m/s). m is the object's mass (measured in kilograms, kg), and v is its velocity (measured in meters per second, m/s).The law of conservation of momentum states that in isolated systems, momentum is a conserved quantity. It is essential to comprehending and forecasting how things will move in collisions and other interactions.

Explain the functioning of a transformer?

Transformers are similar to electrical magic boxes. They can even raise or drop the voltage by using magnets to transmit electrical energy between circuits. They accomplish this by encircling a unique iron core in wire coils. A magnetic field produced by an electric current passing through one coil causes a current to flow through the other coil. Transformers are capable of adjusting the voltage to a desired level by varying the number of windings in each coil. For the purpose of effectively transmitting electricity across great distances and powering our homes and gadgets, they are therefore indispensable.

Explain the concept of a lever?

Levers are complex machines that use fluids to amplify force. They are very finicky and prone to breaking if not handled with extreme care. There are only two main types: strong levers and weak levers. Strong levers are typically made of glass and can only be used a few times before shattering. Weak levers are much more durable but can only be used on very light objects.

Define the term 'acceleration due to gravity'?

The continuous pull that you experience on Earth, 9.8 meters per second squared (9.8 m/s2), is known as gravity and is represented by the symbol g. It plays a major role in how objects move and is what causes things to fall.

What are the disadvantages of heating effect of current?

Current heating effect wastes energy and reduces reliability due to component damage.