

Keywords: Autumn 1

Science

Topic Title: P1 Energy

Introduction to the topic: This half term you will be learning about the different types of energy and how they are shifted from one type to another. You will also be calculating energy and having to learn lots of equations. You will need a calculator for these lessons.

Keyword	Definition
Energy	a property that must be transferred to an object in order to perform work or heat on that object. Measured in Joules (J)
Kinetic energy	the energy an object possesses by virtue of its movement. The amount of kinetic energy possessed by a moving object depends on the mass of the object and its speed .
Gravitational Potential energy	the energy an object acquires when it changes height.
Elastic Potential energy	the energy stored in an object as a result of its deformation, or stretching or compression.
Work done	the amount of force needed to move an object a certain distance.
Power	The rate at which this energy is transferred.
Specific Heat Capacity	The specific heat capacity of a material is the energy required to raise one kilogram (kg) of the material by one degree Celsius ($^{\circ}\text{C}$).
Specific Latent Heat	The specific latent heat of a substance is the amount of energy needed to change the state of 1 kg of the substance without changing its temperature.

Dissipation	a term that is often used to describe ways in which energy is wasted.
Efficiency	How good a device is at transferring energy input to useful energy output is called efficiency. The efficiency of a device is the proportion of the energy supplied that is transferred in useful ways. The efficiency can be calculated as a decimal or a percentage.