

Science

Core Questions & Vocabulary

Year Group: 10

Composite: B7

Composite number:

Core Questions	
1	Identify the energy stores in a Car Chemical, Kinetic, thermal
2	Identify the energy transfers in a candle Chemical → Thermal
3	What is energy? Energy is the capacity for doing work
4	Describe what work done is The amount of force needed to move an object a certain distance
5	Write the formula for calculating work done Work done (Joules) = Force (Newtons) x Distance (metres)
6	Describe how you would measure work done Measure the force using a newton metre and measure the distance using a metre ruler
7	Explain how you can reduce energy wasted in an object Reduce friction between two surfaces so less energy is wasted as thermal energy
8	Recall the formula for power Power (Watt) = Work done (Joules) / time taken (seconds)
9	Identify 3 ways in which energy in a system can be changed Through work done by forces, in electrical equipment, in heating
10	Recall the formula to work out the efficiency of an object Efficiency = useful energy transferred / total energy supplied to the device
Core Vocabulary	
1	Energy The capacity for doing work
2	Energy transfer One energy store moving to another energy store
3	Conservation of energy Energy cannot be created or destroyed, only transferred
4	Closed system A Closed energy system is unable to exchange energy and matter with their surroundings
5	Friction A force that opposes or prevents movement and converts kinetic energy into heat
6	Joule Unit of energy
7	Power The amount of energy that is transferred per second
8	Efficiency the amount of energy that is usefully transferred

9	Electrical work Energy transferred by an electric current.
10	Dissipation The process of energy being transferred, or lost, to the surroundings