Mark scheme
March 2003

GCSE

Science (Modular) Double Award and Physics (Modular)

Module 09

Energy: Foundation Tier

Question	Key
One	1 – movement (kinetic energy) 2 – sound 3 – heat (thermal energy) 4 – light
Two	1 – matt surfaces 2 – shiny surfaces 3 – particles 4 – infra red
Three	1 – wind farm 2 – uranium 3 – hydroelectric scheme 4 – tidal barrage
Four	1 – 2.75 2 – 8.25 3 – 108 4 – 2750
Five	1 – radiation is reflected onto the pipe 2 – water absorbs radiation 3 – steam drives a turbine 4 – a turbine turns a generator
Six	coal-fired oil-fired
Seven	conduction through the brick convection through the air
Eight	8.1 – B, 8.2 – D, 8.3 – D, 8.4 – D
Nine	9.1 – A, 9.2 – A, 9.3 – A, 9.4 – C
Ten	10.1 – B, 10.2 – D, 10.3 – D, 10.4 – D

Energy: Higher Tier

Question	Key
One	1 – radiation is reflected onto the pipe 2 – water absorbs radiation 3 – steam drives a turbine 4 – a turbine turns a generator
Two	1 – gravitational potential energy 2 – weight 3 – kinetic energy 4 – thermal energy
Three	conduction through the brick convection through the air
Four	gas particles move faster when the gas is heated warm regions of gas are less dense than cooler regions
Five	5.1 – B, 5.2 – D, 5.3 – D, 5.4 – D
Six	6.1 – A, 6.2 – A, 6.3 – A, 6.4 – C
Seven	7.1 – B, 7.2 – D, 7.3 – D, 7.4 – D
Eight	8.1 – A, 8.2 – A, 8.3 – A, 8.4 – A
Nine	9.1 – B, 9.2 – C, 9.3 – C, 9.4 – D
Ten	10.1 – D, 10.2 – B, 10.3, – C, 10.4 – A