CP3 Conservation of Energy

CP3a Energy stores and transfers
Explain, using examples, that energy is conserved.
Give examples of energy being moved between different stores.
Interpret diagrams that represent energy transfers.
Represent energy transfers using diagrams.
Describe what happens to wasted energy in energy transfers.
CP3b Energy efficiency
Explain some ways in which energy is transferred wastefully by mechanical processes.
Explain some ways of reducing unwanted energy transfers in mechanical processes.
Define what efficiency means.
H Explain how efficiency can be increased.
Recall and use the formula for calculating energy efficiency.
CP3c Keeping warm
Describe the ways in which energy can be transferred by heating.
Describe ways of reducing unwanted energy transfers using thermal insulation.
Explain how different ways of reducing energy transfer by heating work.
Define the meaning of thermal conductivity.
Describe the effects of the thickness and thermal conductivity of the walls of a building on its rate of cooling.
CP3d Stored energies
Describe how different factors affect the gravitational potential energy stored in an object.
Recall and use the equation for gravitational potential energy.
Describe how different factors affect the kinetic energy stored in an object.
Recall and use the equation for kinetic energy.
CP3e Non-renewable resources
List the non-renewable energy resources in use today.
Describe the advantages and disadvantages of non-renewable energy resources.
Compare the advantages and disadvantages of non-renewable energy resources.
Explain how the use of non-renewable energy resources is changing.
CP3f Renewable resources

List the renewable energy resources in use today.
Describe the source of energy for different renewable resources.
Describe the ways in which the different energy resources are used.
Explain why we cannot use only renewable energy resources.