

Model Answers: Easy

1

The correct answer is C because:

- Energy is stored in the chemical energy store of the log
 - It is transferred by heating and radiation to the thermal energy store of the surroundings as heat and light

Answers A, B and D are incorrect because to release energy from the nuclear store, nuclei have to be fused together (fusion) or split apart (fission). No nuclear reactions take place in the burning of a log.

2

The correct answer is A because:

- When objects are moving they have energy
- This energy is their kinetic store

B is incorrect as a box sitting on a high shelf has energy in its gravitational store

C is incorrect as compression of springs in a car's suspension causes energy to be in their elastic store

D is incorrect as the nuclei of uranium atoms have energy in their nuclear store

3

The correct answer is C because:

- It is incorrect to say that energy is used up
- Energy can be transferred from object to object, but it can also be transferred from store to store within the same object

4

The correct answer is A because:

- A force acting over a distance is work done
- All the other answer options correctly describe power

5

The correct answer is C because:

- Energy is transferred by heating from the thermal store of the heating element of the kettle to the thermal store of the water

Sometimes energy will be transferred from store to store within an object. Other times, energy will be transferred from object to object. To work out the correct energy transfer taking place, it is important to define or identify the system. In this case, it is the process of heating or boiling the water.

