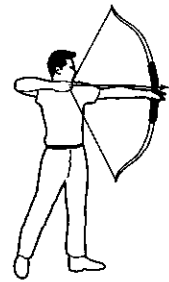
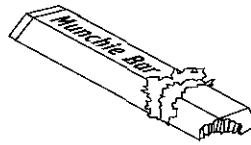
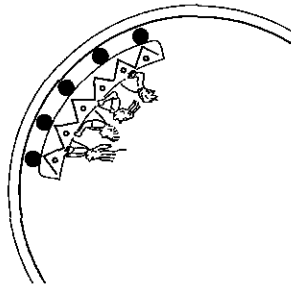


ALL ABOUT ENERGY

Energy exists in many different forms, for example, light, sound, heat, electrical, movement (kinetic) and potential (stored) energy. There are various types of stored energy, such as chemical, positional and elastic. Foods and fuels contain chemical energy. This energy is released when foods are digested and fuels are burned. Objects high from the ground have positional energy (another form of potential energy) – this is changed to movement (kinetic energy) when they fall. Stretched springs (or elastic bands) have elastic energy, this can be changed to movement – clockwork toys and catapults are examples.

Name the stored energy shown below in the following six examples.



1. 2. 3. 4. 5.

As we have seen, energy can be changed from one form to another, for instance a light globe changes chemical energy to light (and heat) energy, a drum changes movement energy to sound energy, a barbecue changes chemical (stored) to heat (and light) and so on.

6. Can you see energy? _____
7. Can you weigh energy? _____

We never get all of the stored energy out in the form we want it, some is always changed to other forms of energy. In a car engine, only some of the stored energy in petrol goes to movement energy. The rest is changed to other forms such as heat and sound.

8. Consider a cyclist. His energy is supplied by food. As he is cycling along, is all of the energy being turned into movement of the bicycle? Explain your answer.

Cells (batteries) are sources of electrical energy. They have stored (chemical) energy that can be changed to electrical energy.

9. State an advantage of having an electrical appliance that works on batteries rather than mains electricity. _____
10. State a disadvantage of having an electrical appliance that works on batteries rather than mains electricity. _____
11. Give three (3) examples that have not been mentioned of objects with kinetic energy.

