Energy Stores and Transfers **Answers**

1. Describe where each of the energy stores can be found in the picture.

   nuclear: **in the power station**

   gravitational potential: **in the children on the slide and the rocking horse**

   elastic potential: **in the spring of the rocking horse**

   kinetic: **in the moving children and rocking horse**

   magnetic: **between the magnet and roundabout**

   internal (thermal): **in the children, plants, objects, ground and slide due to friction**

   chemical: **in the banana, the muscles of the children and the trees**

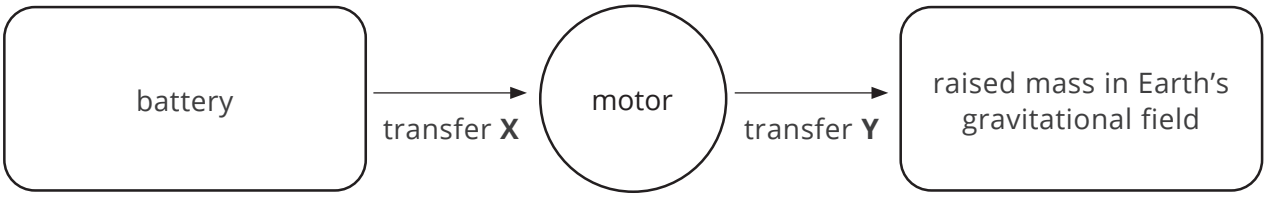
   electrostatic: **in the hair of the child on the slide**

2. As the child moves down the slide, energy is transferred mechanically to the internal (thermal) energy store of the slide.

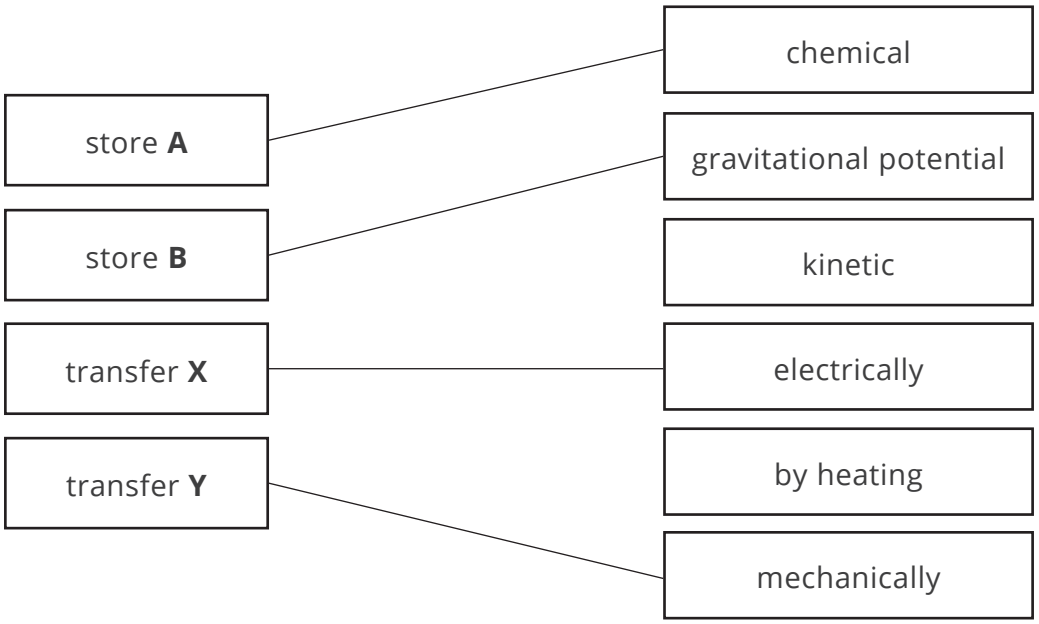
   Name the force that causes this energy transfer.

   friction

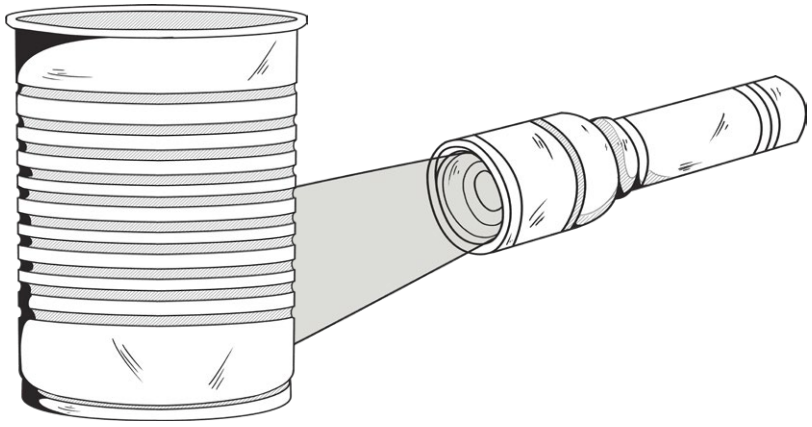
A battery-powered motor is used to lift a small mass off the ground. An energy transfer diagram for the system is shown below.



3. Draw **one** line from each label to the way that energy is stored or the pathway by which energy is transferred.



A battery-powered torch is shone on a metal can containing water. The temperature of the water increases.



4. Complete the sentences to describe the energy stores and transfers in the system.

Choose answers from the box. Some words may be used more than once.

chemical	electrically	particle movement	radiation	internal

Energy is transferred **electrically** from the **chemical** energy store of the battery to the bulb, and then by heating via **radiation** to the **internal** energy store of the can. Energy is then transferred by heating via **particle movement** from this energy store to the **internal** energy store of the water.