Energy Moves

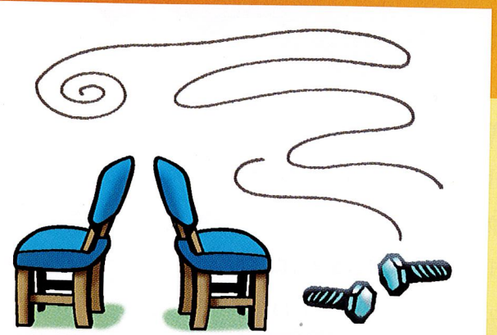
Rob Morrison

The sun's heat energy moves to become the energy of the Earth's winds.

Energy from your breakfast moves to your muscles. It becomes mechanical energy when you walk and run.

Energy moves from a swinging pendulum to a clock's mechanism.

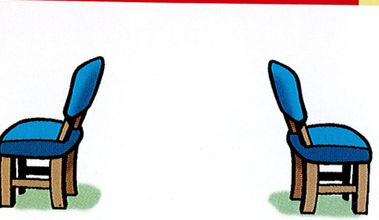
You can make energy move from one pendulum to another.



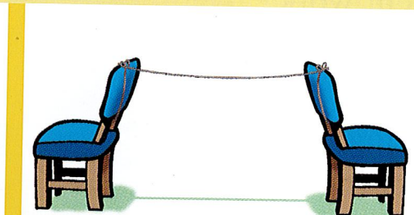
You will need:

- 1 piece of string 3 metres long
- 2 pieces of string half a metre long
- two chairs of the same height
- weights (big washers, nuts or lumps of modelling clay)

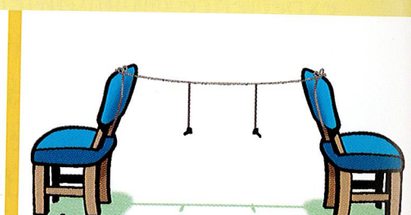
What to do:



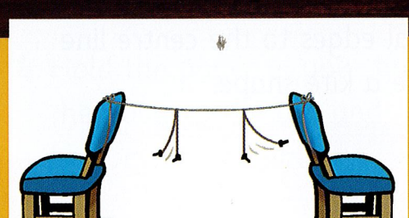
1 Place the chairs 2 metres apart back-to-back.



2 Tie the long piece of string to the back of the chair so that it hangs between the chairs. The string should be level, but not too tight. It should dip slightly in the middle.



3 Tie the short pieces of string side by side about half a metre apart in the middle of the long string. Tie a weight at the end of each of the short pieces of string to make two pendulums. The weights should be the same size.



4 Keep the right pendulum still while you pull the left pendulum out sideways. Let the left pendulum go so that it starts swinging.

What do you see?

The right pendulum begins to swing.

As it does, the left pendulum slows down. Soon the right pendulum is swinging, but the left pendulum has stopped altogether. Then the left pendulum starts to swing again while the right pendulum slows to a stop.

What is happening?

The energy of the swinging pendulum moves into the string and then into the other pendulum.

When all of the energy has moved, the first pendulum is still. Then the energy moves back again. It will keep moving until the energy has gone.

Where does the energy go?

Energy is never lost completely. Energy moves or becomes other forms of energy.

The fibres in the string rub together. Some of the energy is used for that.

Each pendulum makes a tiny wind as it swings. Some energy is used for that.

The tiny wind makes a tiny sound. That is energy, too.