

Wiring a house

The electric circuits in a house involve energy transfers.

Use the diagram of a house to describe and explain your ideas about energy and electricity.

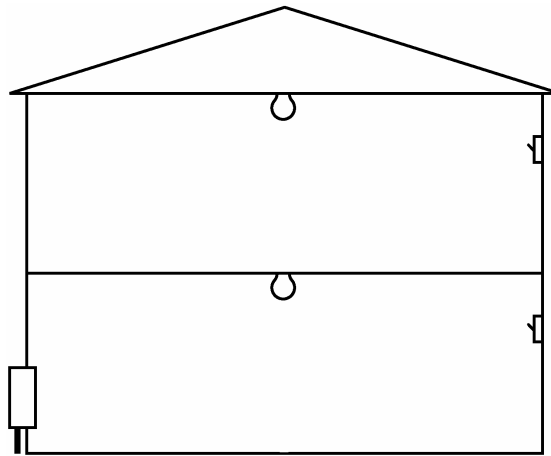
Use the level ladder below to help you achieve your target.

Task:

Use the diagram above to help you design a circuit so that the upstairs and downstairs lights can be turned off separately.

Use a model to explain the circuit. Describe the energy transfers in the circuit.

Identify the useful and non-useful (waste) energy transfers.



Key words:

conductor, current, insulator, voltage
 energy transfer by heating, by lighting, by electricity

Level ladder:

What is your target level? Use the level ladder to help you reach it:

To get level	You might have:
3	<ul style="list-style-type: none"> • Drawn a simple circuit diagram for the house. • Shown where the electricity comes from • Stated simply how the circuit works.
4	<ul style="list-style-type: none"> • Drawn a circuit diagram using standard circuit symbols. • Stated the job of the house electricity supply, wires, bulb and switch. • Identified which materials in the circuit are conductors and insulators.
5	<ul style="list-style-type: none"> • Drawn a circuit diagram using standard circuit symbols. • Described the job of the house electricity supply, wires, bulb and switch. • Described materials in the circuit as conductors and insulators. • Drawn a simple model to explain some parts of the circuit.