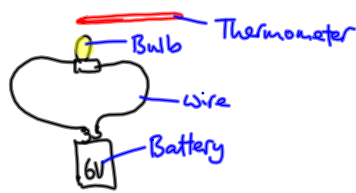


Identify different forms of energy and carry out simple experiments to show the following energy conversions:
 (a) chemical energy to electrical energy to heat energy
 (b) electrical energy to magnetic energy to kinetic energy
 (c) light energy to electrical energy to kinetic energy.
 OP20

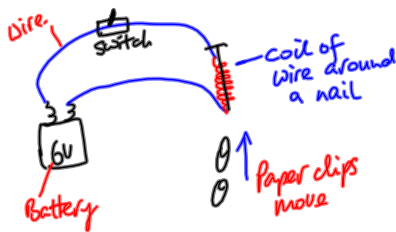
Energy is the ability to do work (J).

Principle of Conservation of energy
 -energy cannot be created or destroyed but can be converted from one form to another.

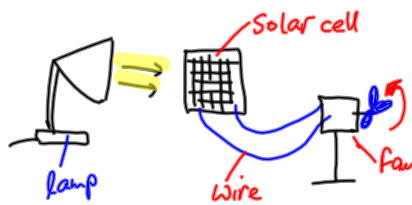
CHEMICAL → ELECTRICAL → HEAT



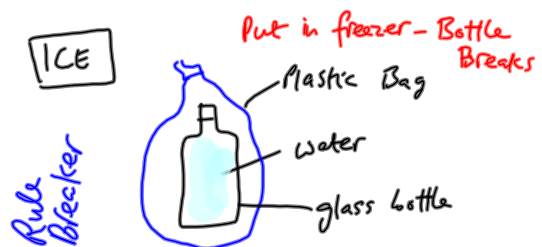
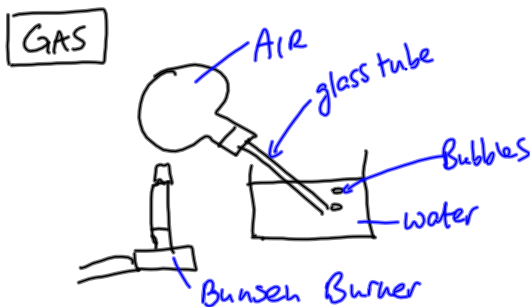
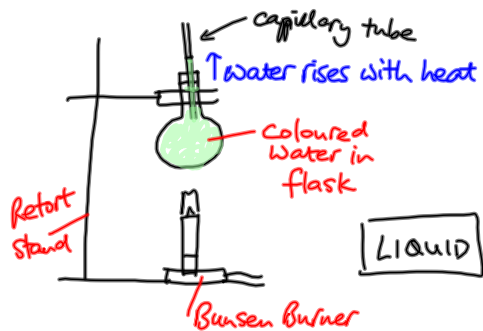
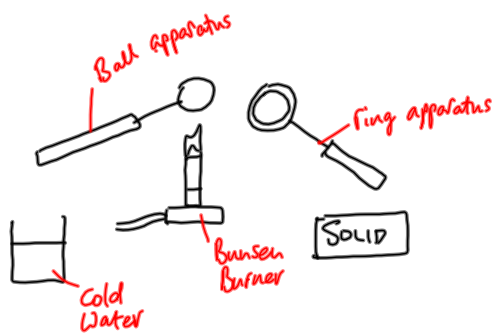
ELECTRICAL → MAGNETIC → KINETIC



LIGHT → ELECTRICAL → KINETIC



Investigate and describe the expansion of solids, liquids and gases when heated, and contraction when cooled.
 OP23



Carry out simple experiments to show the transfer of heat energy by conduction, convection and radiation; investigate conduction and convection in water.

OP31

