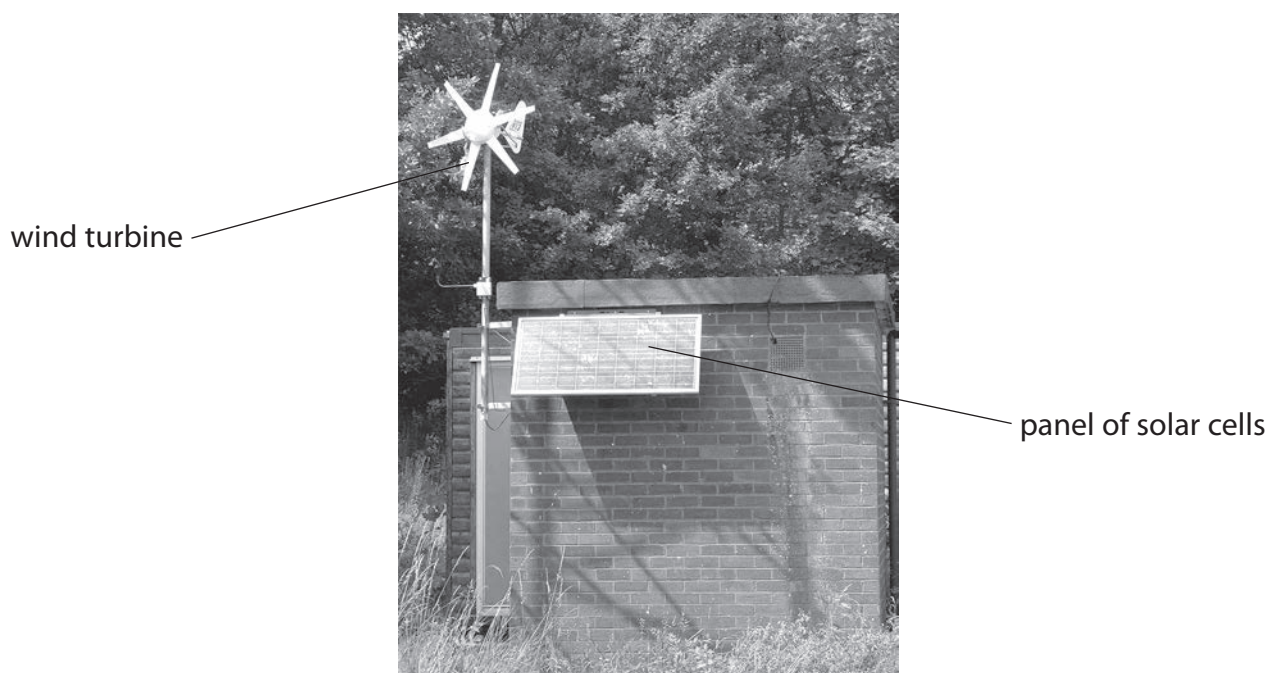


**12** The photograph shows equipment used for generating electricity from renewable sources.



(a) Complete the sentences using words from the box.

**chemical**

**heat**

**kinetic**

**light**

**sound**

- (i) The panel of solar cells transforms ..... energy into electrical energy.

(1)

- (ii) The wind turbine transforms ..... energy into electrical energy.

(1)



(b) On a windy day, the wind turbine transfers 78 W of power.

(i) State the equation linking power, energy transferred and time.

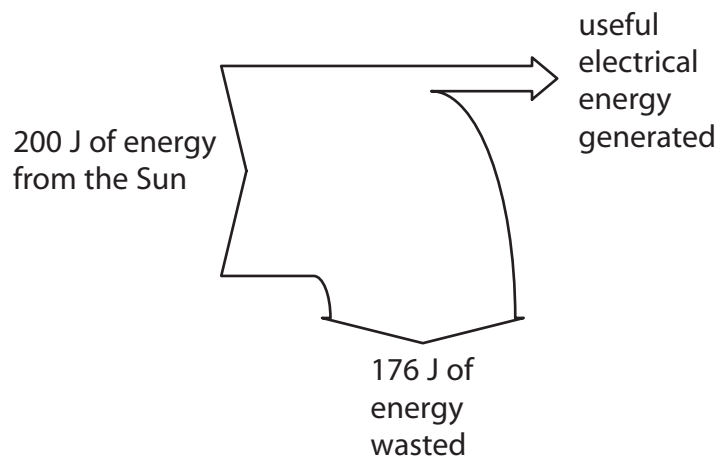
(1)

(ii) Calculate the amount of energy the turbine transfers in 10 s.

(3)

Energy transferred = ..... J

(c) The Sankey diagram shows the energy transferred by the panel of solar cells.



Show that the efficiency of the panel of solar cells is 12%.

(2)

(Total for Question 12 = 8 marks)

