

SET 1 - aiming for level 3-4 at GCSE

Q1.

Pupils investigate the time taken for different types of trainer to slide down a ramp.



- (a) What would they use to measure the time for each trainer to slide down the ramp?

.....

1 mark

- (b) Which unit of measurement should they use to record the time taken for the trainer to slide down the ramp?

Tick the correct box.

hours ☐ N ☐ cm ☐ g ☐ s ☐

1 mark

- (c) Which factor do they change as they carry out their investigation?
Tick the correct box.

the angle of the ramp

☐

the length of the ramp

☐

the type of trainer

☐

the person recording the results

☐

the surface of the ramp

☐

the distance each trainer moves down the ramp

☐

1 mark

- (d) Which **three** factors should they keep the same in their investigation?
Tick the **three** correct boxes.

the angle of the ramp

☐

the length of the ramp

☐

the type of trainer

☐

the person recording the results

☐

the surface of the ramp

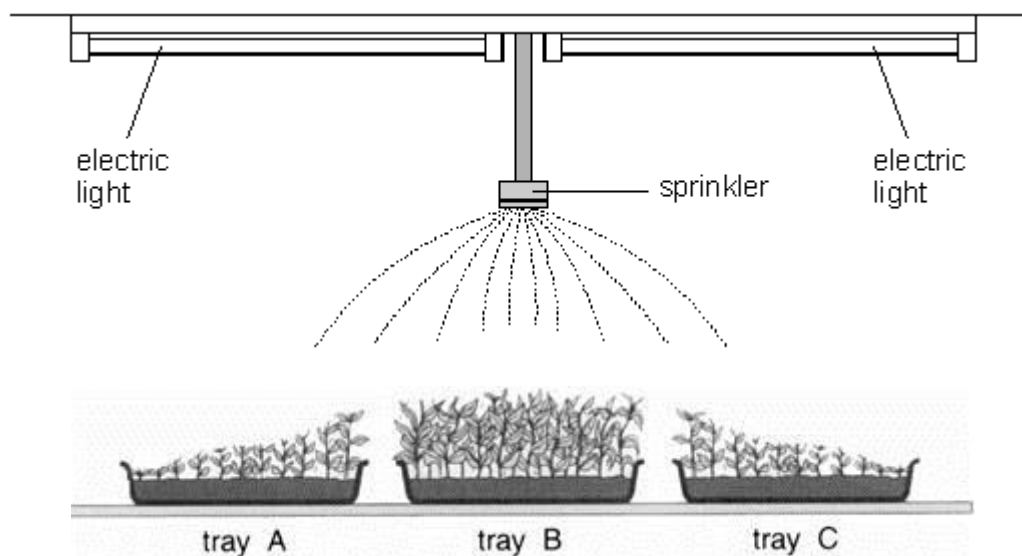
☐

the distance each trainer moves down the ramp

☐

2 marks
maximum 5 marks

- Q2.** Some pupils put three identical trays of young plants in a greenhouse. They gave the plants a little water each morning with a sprinkler. The drawing shows the plants three weeks later.



- (a) (i) Why did some of the plants in trays A and C not grow as well as the plants in tray B?

.....

.....

1 mark

- (ii) How would you move tray A to find out if your answer to part (i) is correct? What result would you expect?

.....

.....

.....

2 marks

- (b) The sprinkler adds water to the soil. What else could the pupils add to the soil to help the plants to grow well?

.....

1 mark

- (c) At the same time, the pupils grew another tray of the same type of plants. They put the tray in a dark cupboard and kept the soil damp. After three weeks, how were the plants grown in the dark different from the plants grown in the greenhouse?

Tick **two** boxes.

The plants grown in the dark had:

larger leaves	<input type="checkbox"/>
longer stems	<input type="checkbox"/>
more leaves	<input type="checkbox"/>
paler leaves	<input type="checkbox"/>
more roots	<input type="checkbox"/>

2 marks
Maximum 6 marks

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Q3.

- (a) The list gives four properties of most metals.

Metals are good conductors of electricity.

Metals are good conductors of heat.

Metals can be polished and have shiny surfaces.

Metals are strong.

From the list of properties, give the main reason why:

- (i) garden spades are made from metals;

.....

- (ii) jewellery is made from metals;

.....

- (iii) saucepan bottoms are made from metals.

.....

3 marks

- (b) Paper clips are made from steel wire because steel is a cheap and strong metal.
Give **another** reason, which is **not** in the list above, why paper clips are made from steel wire.

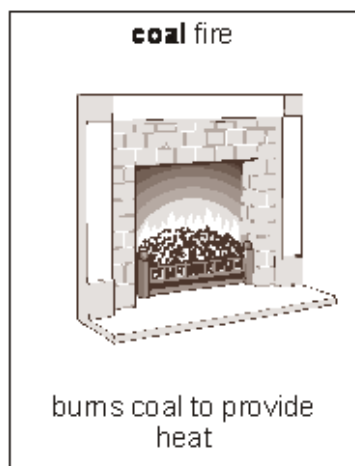
.....

1 mark

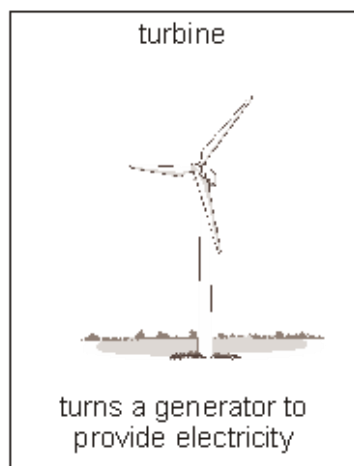
Maximum 4 marks

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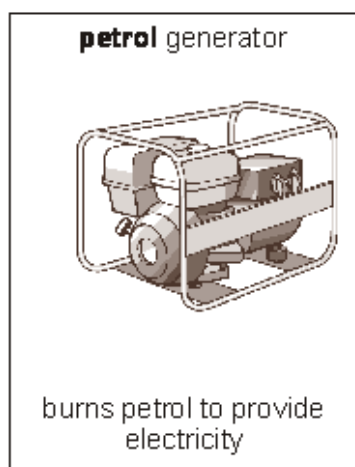
Q4. The drawings below show six ways of providing energy.



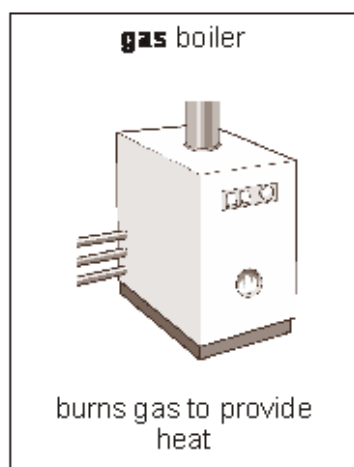
A



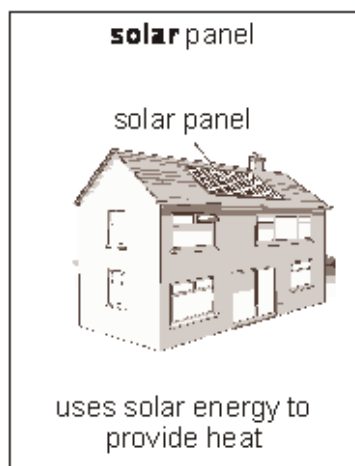
B



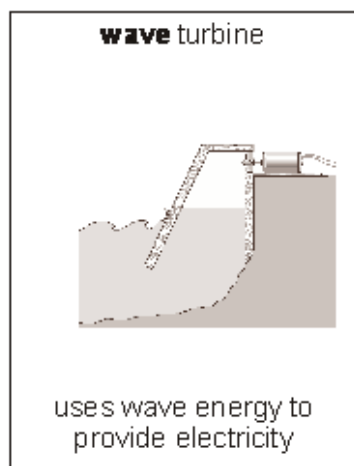
C



D



E



F

(a) From the drawings, give the names of **two** fossil fuels.

1.

2.

2 marks

(b) (i) What is the source of energy for a solar panel?

.....

1 mark

(ii) Why can the solar panel **not** work at night?

.....

1 mark

(c) What makes the blades of the turbine in drawing B go round?

.....

1 mark

(d) Renewable energy resources will **not** run out.

From the drawings, give **one** energy source that will **not** run out.

.....

1 mark
maximum 6 marks

