

Energy Sources and the Trends in their Uses 4

Q:1 Various types of power station use different energy sources and affect the environment in various ways.

Match types, A, B, C and D, with the numbers 1– 4 in the sentences.

- A Coal-fired power stations
- B Geothermal power stations
- C Nuclear power stations
- D Tidal power stations

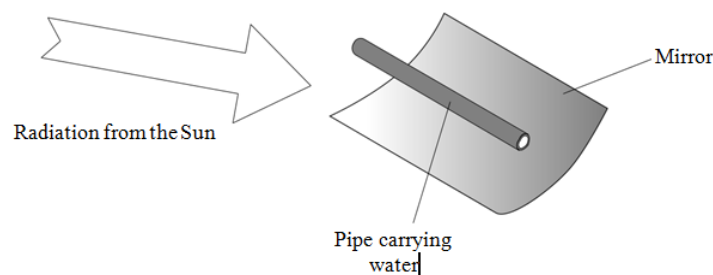
... 1 ... use energy from the natural decay of radioactive substances in the Earth.

... 2 ... use no fuel but river estuaries have to be flooded.

... 3 ... use uranium as a fuel in reactors.

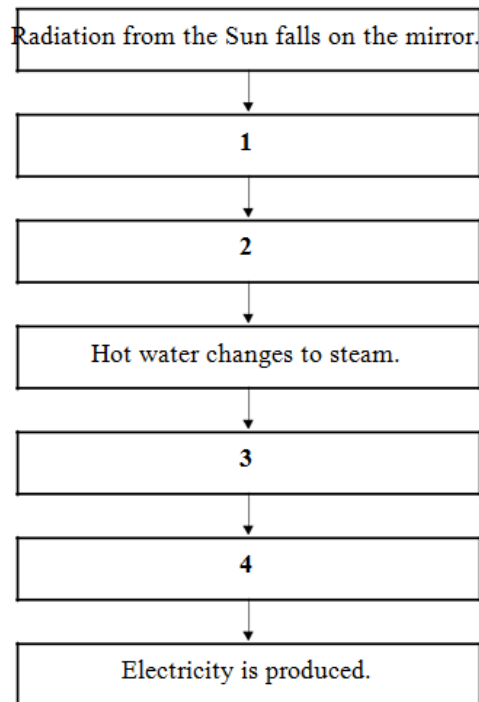
... 4 ... can pollute the atmosphere with sulfur dioxide.

Q:2 The diagram shows part of a solar-powered power station.



Match stages, A, B, C and D, with the boxes 1– 4 in the flow chart on the next page to explain how the power station works.

- A The turbine turns the generator.
- B Radiation is reflected onto the pipe.
- C Steam drives the turbine.
- D Water in the pipe absorbs energy.



Q:3 Generating electricity causes problems for the environment.

Match words, A, B, C and D, with the numbers 1–4 in the sentences.

- A acid rain
- B global warming
- C noise pollution
- D radioactive waste

Nuclear power stations produce ... 1 ...

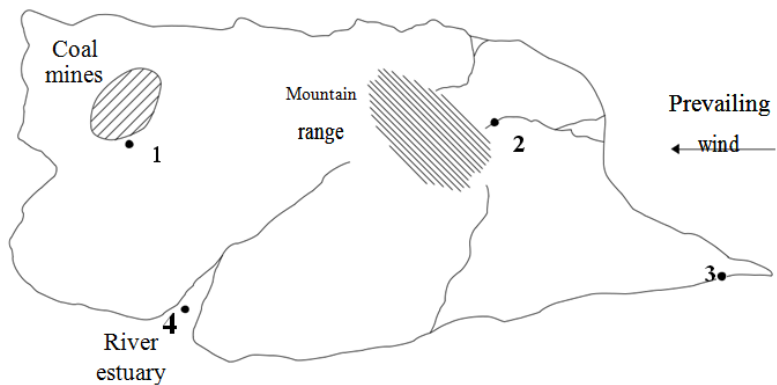
Wind farms produce ... 2 ...

Coal-fired power stations produce sulfur dioxide which causes . . . 3

All fossil-fuel power stations produce carbon dioxide which causes . . . 4

Q:4 The map shows some features of a large island.

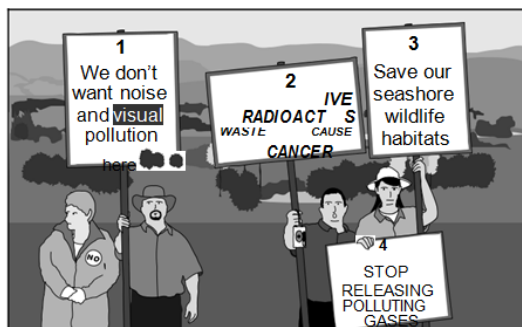
It also shows four places, 1, 2, 3 and 4, where electricity could be generated.



Match energy sources, A, B, C and D, with the labels 1– 4 on the map.

- A falling water (hydroelectric)
- B fossil fuel
- C tides
- D wind

Q:5 Some people feel strongly about the environment. They can use posters to protest against the location of new power stations



Match energy sources, A, B, C, and D, with the protesters' posters 1– 4.

A fossil fuels

B nuclear

C tides

D wind

Q:6 Various energy sources can be used to generate electricity.

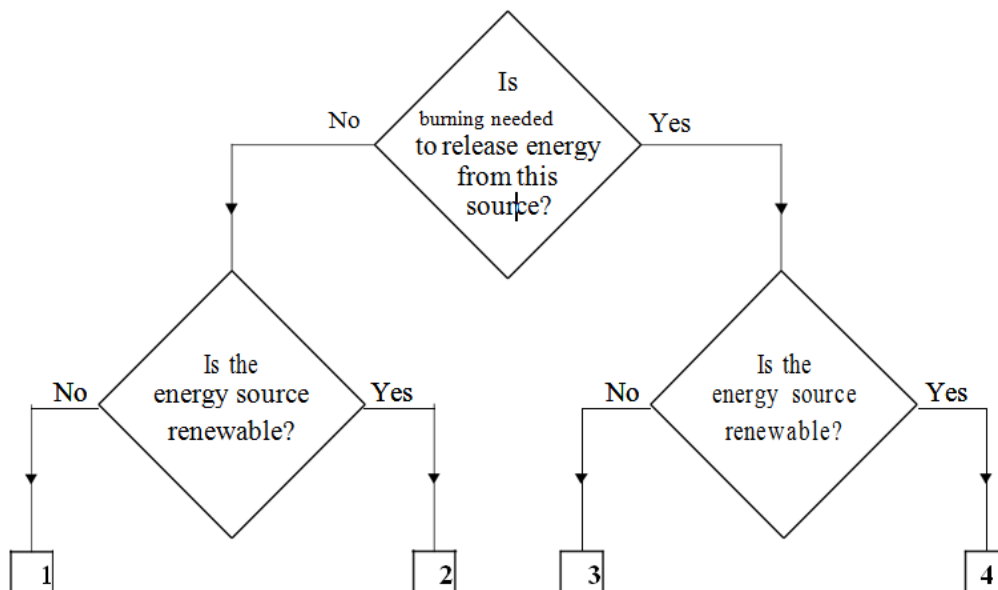
Match energy sources, A, B, C, and D, with the numbers 1– 4

A)coal

B)biofuel

C)geothermal

D)uranium



Q:7 This question is about nuclear power stations.

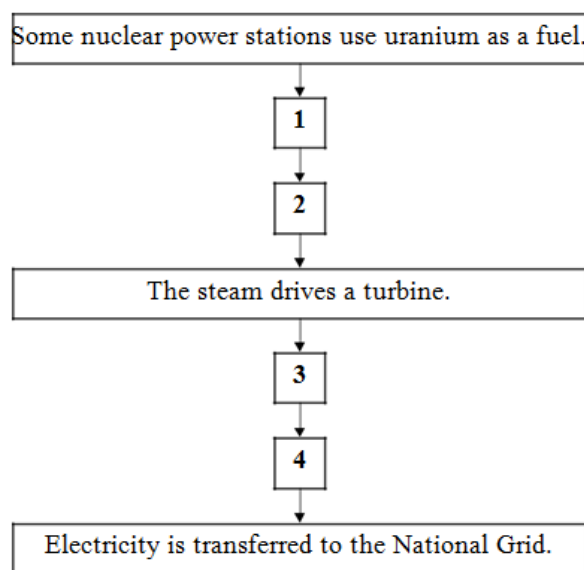
Match statements, A, B, C and D, with the boxes 1–4 in the flow chart to describe how nuclear power stations work.

A Electricity is produced.

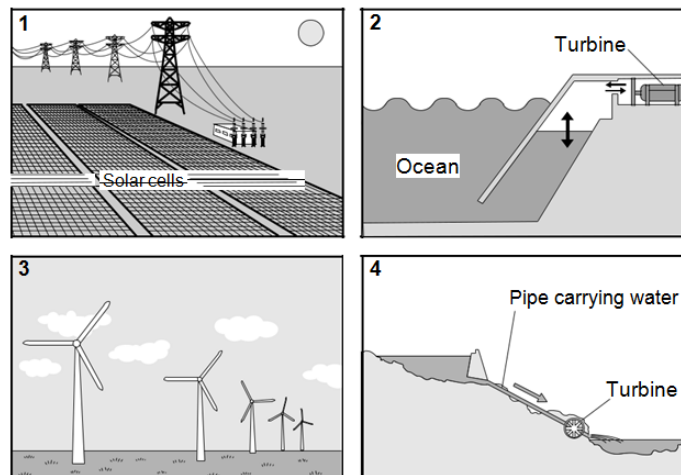
B Fission of uranium produces heat.

C The heat is used to produce steam.

D The turbine drives a generator.



Q:8 The diagrams show four types of power station. Each power station uses a different energy source to produce electricity.



Match energy sources, A, B, C and D, with the power stations 1– 4.

- A falling water
- B sunlight
- C waves
- D wind

Q:9 This question is about different types of power station.

Match power station types, A, B, C and D, with the statements 1– 4 in the table.

- A coal-fired
- B geothermal
- C nuclear
- D wind farm

1	produces greenhouse gases
2	produces long-lasting radioactive waste
3	uses heat from underground
4	the energy source drives a turbine directly

Q:10 Different power stations use different energy sources.

Match power stations, A, B, C and D, with the numbers 1– 4 in the sentences.

- A gas-fired power stations
- B nuclear power stations
- C oil-fired power stations
- D wood-burning power stations

A liquid fossil fuel is used in . . . 1

A renewable fuel is used in . . . 2

The smallest contribution to global warming is made by . . . 3

The shortest start-up time is for . . . 4

Q:11 The energy resource used to generate electricity depends on the location.

Match energy resources, A, B, C and D, with the numbers 1–4 in the sentences.

A nuclear

B solar

C tides

D wind

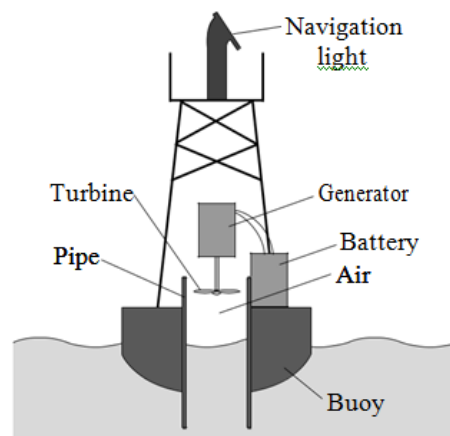
Generators sited on hills in the UK are most likely to use . . . 1

A power station that includes a barrage across an estuary uses . . . 2

The best energy resource to use in a submarine which has to spend months under water is . . . 3

The best energy resource to recharge the batteries on a motorway sign is . . . 4

Q:12 The diagram shows a wave energy device.



Match words, A, B, C and D, with the numbers 1–4 in the sentences.

- A battery
- B buoy
- C generator
- D turbine

Waves move the . . . 1 . . . up and down. This movement causes air to move both in and out of the pipe.

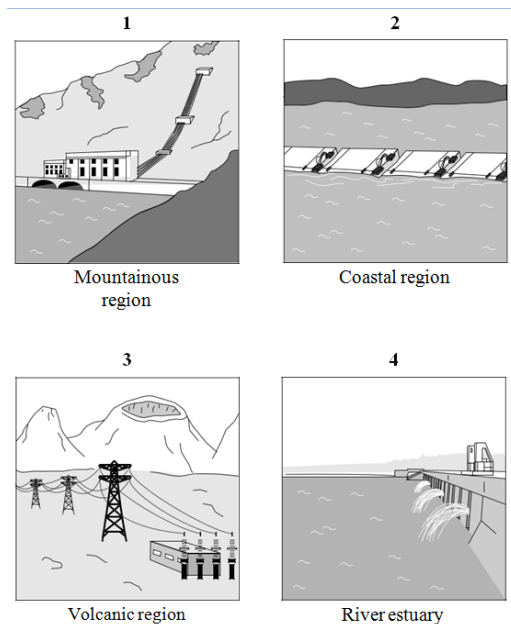
Movement of the air turns the . . . 2 . . . This turns the . . . 3 . . . which produces electricity.

The electricity is used to charge the . . . 4

Q:13 Some power stations must be built in special places.

Match energy sources, A, B, C and D, with the places 1–4.

- A geothermal
- B falling water (hydroelectric)
- C tides
- D waves



Q:14 This question is about generating electricity.

Match energy sources, A, B, C and D, with the descriptions 1– 4 in the table.

- A gas
- B geothermal
- C moving water
- D uranium

	Description
1	produces energy from fission
2	is used in hydroelectric schemes
3	energy from underground hot rocks
4	is burnt in some power stations

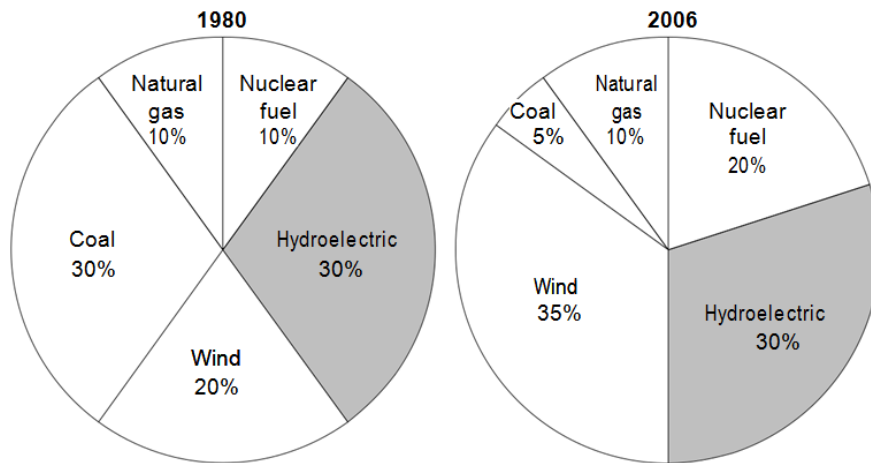
Q:15 Power stations used to generate electricity affect the environment in different ways.

Match types of power station, A, B, C and D, with effects on the environment 1– 4 in the table.

- A coal-fired
- B hydroelectric
- C nuclear
- D tidal barrage

	Effect on environment
1	destroys the habitats of wading birds
2	produces waste that is radioactive
3	destroys large areas of farmland by flooding
4	produces gases that pollute the atmosphere

Q:16 The two pie charts show the relative proportions of energy sources used to generate electricity in a European country. One is for 1980; the other one is for 2006.



Match energy sources, A, B, C and D, with the numbers 1– 4 in the table.

- A coal
- B natural gas
- C nuclear fuel
- D wind

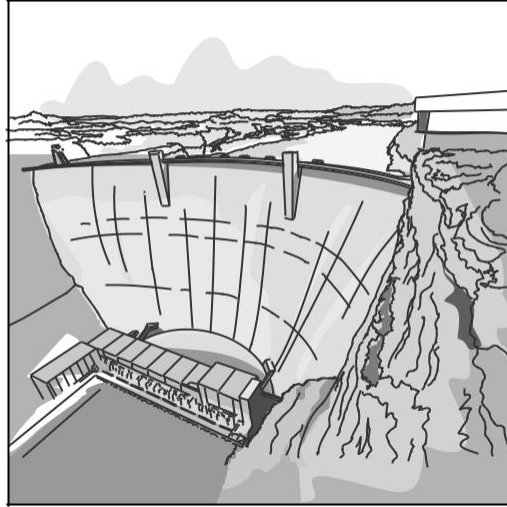
	Between 1980 and 2006, the relative proportion of . . .
1	this non-renewable energy source decreased in use.
2	this non-renewable energy source doubled in use.
3	this non-renewable energy source was unchanged in use.
4	this renewable energy source had the greatest increase in use.

Q:17 Some people feel strongly about the environment. They may protest against the location of new power stations.

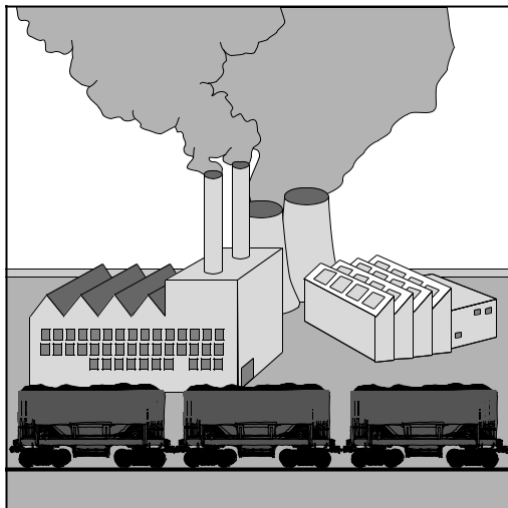
The diagrams show four types of power station.



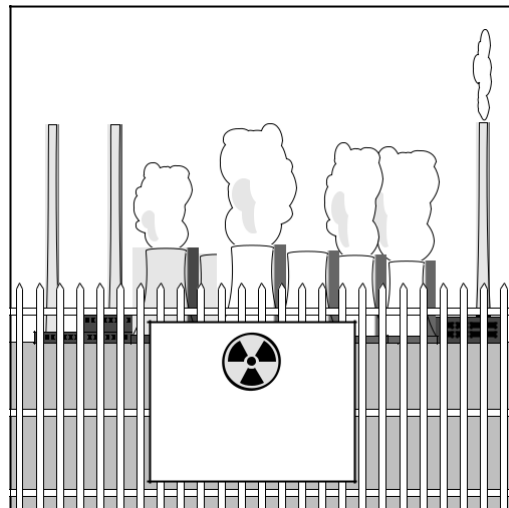
1



2



3



4

The statements, A, B, C, and D, were made by different groups of protesters.

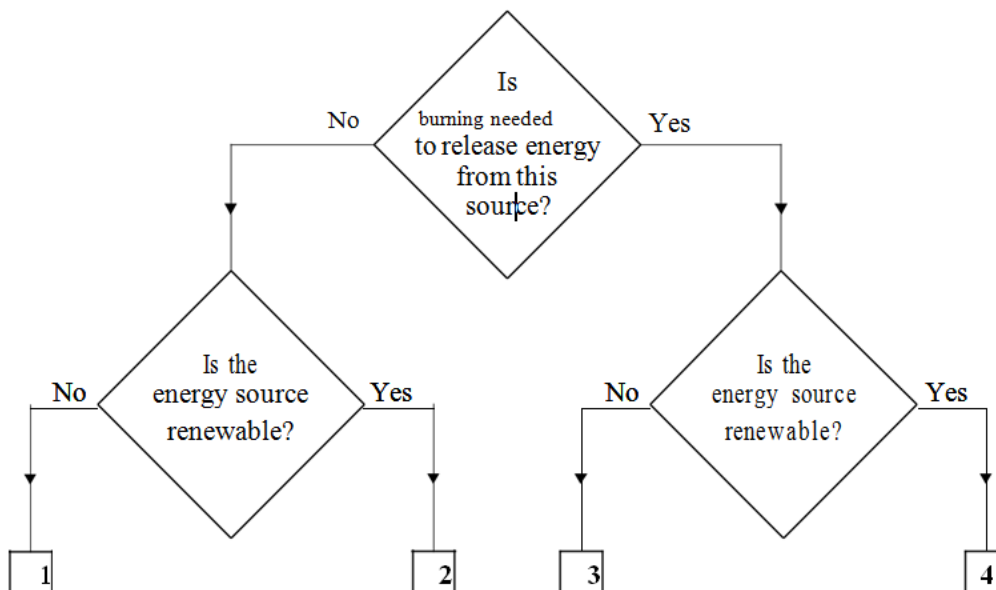
Match the protesters' statements, A, B, C, and D, with the power stations 1– 4.

- A Don't flood our farmland.
- B Don't let turbines kill our birds.
- C Nuclear waste causes cancer.
- D Stop releasing polluting gases.

Q:18 Various energy sources can be used to generate electricity.

Match energy sources, A, B, C, and D, with the numbers 1– 4 in the flow chart.

- A falling water
- B oil
- C plutonium
- D wood



Q:19 This question is about some of the energy sources used to generate electricity.

Match energy sources, A, B, C and D, with the numbers 1– 4 in the table.

A coal

B hydroelectric

C nuclear

D wind

	Feature
1	Has the highest decommissioning cost
2	The supply is not reliable
3	No fuel costs, and can be used to meet sudden demands for electricity
4	Transformation of chemical energy to heat energy

TOTAL MARKS=76