

11.4 Carbon dioxide and methane

01. 0620_m21_qp_22 Q: 31

Which process does **not** produce carbon dioxide?

- A combustion of a hydrocarbon
 - B photosynthesis
 - C reaction between an acid and a metal carbonate
 - D respiration
-

02. 0620_s21_qp_21 Q: 30

Which process removes carbon dioxide from the atmosphere?

- A combustion of fossil fuels
 - B fermentation
 - C photosynthesis
 - D respiration
-

03. 0620_s21_qp_22 Q: 32

Which process in the carbon cycle is responsible for removing carbon dioxide from the atmosphere?

- A combustion
 - B decomposition
 - C photosynthesis
 - D respiration
-


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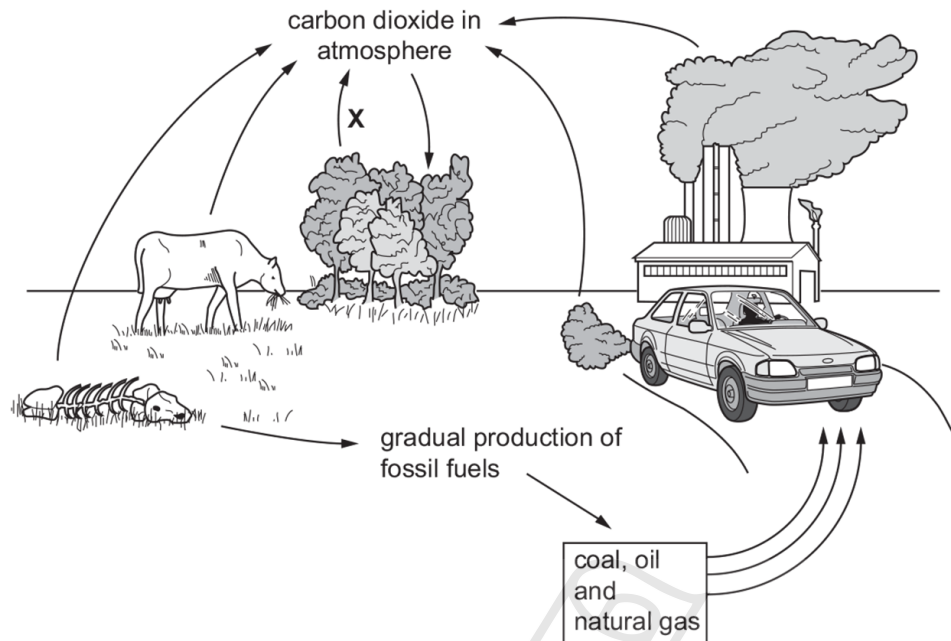
04. 0620_w21_qp_22 Q: 30

Which process does **not** produce a greenhouse gas?

- A acid rain on limestone buildings
 - B combustion of wood
 - C digestion in cows
 - D zinc reacting with sulfuric acid
-

05. 0620_p20_qp_20 Q: 31

The diagram shows the carbon cycle.



Which process is shown by the arrow marked X?

- A combustion
- B photosynthesis
- C respiration
- D transpiration

06. 0620_s20_qp_21 Q: 30

Which process removes carbon dioxide from the atmosphere?

- A combustion
- B decomposition
- C photosynthesis
- D respiration

11.4. CARBON DIOXIDE AND METHANE

07. 0620_s20_qp_22 Q: 30

Three processes in the carbon cycle are shown.

- 1 Methane reacts with oxygen producing carbon dioxide and water.
- 2 Carbon dioxide and water are absorbed and used by plants to make oxygen.
- 3 Oxygen is used by living things to release energy.

Which processes have taken place?

	1	2	3
A	combustion	photosynthesis	respiration
B	combustion	respiration	photosynthesis
C	photosynthesis	combustion	respiration
D	respiration	photosynthesis	combustion

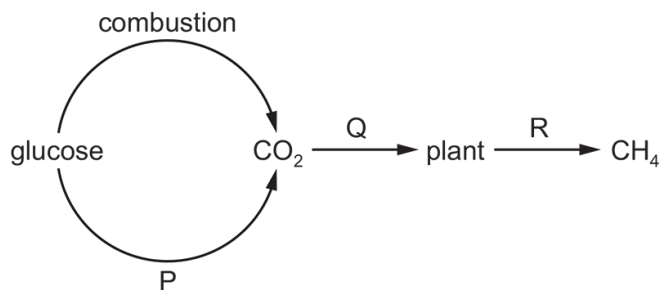
08. 0620_s20_qp_23 Q: 30

Which processes increase the amount of carbon dioxide in the atmosphere?

- 1 burning ethanol
- 2 farming cattle
- 3 growing trees

A 1, 2 and 3 B 1 and 2 only C 1 and 3 only D 2 and 3 only

09. 0620_w20_qp_21 Q: 34
 Part of the carbon cycle is shown.



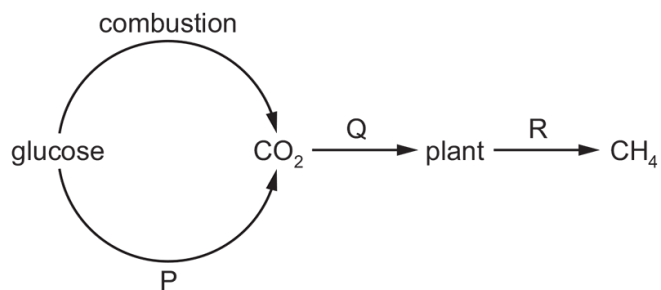
What are processes P, Q and R?

	P	Q	R
A	decomposition	respiration	photosynthesis
B	respiration	photosynthesis	decomposition
C	respiration	decomposition	photosynthesis
D	photosynthesis	respiration	decomposition

11.4. CARBON DIOXIDE AND METHANE

10. 0620_w20_qp_22 Q: 33

Part of the carbon cycle is shown.



What are processes P, Q and R?

	P	Q	R
A	decomposition	respiration	photosynthesis
B	respiration	photosynthesis	decomposition
C	respiration	decomposition	photosynthesis
D	photosynthesis	respiration	decomposition

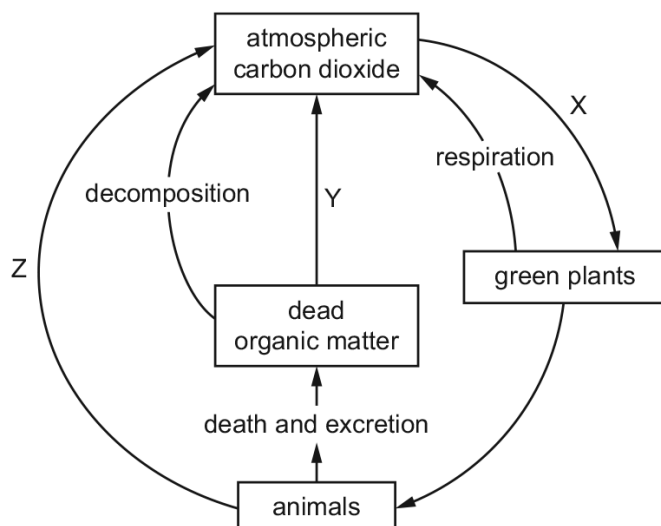
11. 0620_m19_qp_22 Q: 34

Which process removes carbon dioxide from the Earth's atmosphere?

- A** combustion
- B** heating limestone
- C** photosynthesis
- D** respiration

12. 0620_s19_qp_21 Q: 32

The carbon cycle is shown.



Which row describes processes X, Y and Z?

	X	Y	Z
A	respiration	combustion	photosynthesis
B	respiration	photosynthesis	combustion
C	photosynthesis	combustion	respiration
D	photosynthesis	respiration	combustion

13. 0620_s19_qp_22 Q: 30

Some of the processes involved in the carbon cycle are shown.

- 1 glucose + oxygen → carbon dioxide + water
- 2 carbon dioxide + water → glucose + oxygen
- 3 methane + oxygen → carbon dioxide + water

What are the names of these processes?

	1	2	3
A	combustion	respiration	photosynthesis
B	photosynthesis	combustion	respiration
C	respiration	combustion	photosynthesis
D	respiration	photosynthesis	combustion

11.4. CARBON DIOXIDE AND METHANE

14. 0620_s19_qp_23 Q: 31

Which row about the carbon cycle is correct?

	process for removing carbon dioxide from the atmosphere	process for returning carbon dioxide to the atmosphere
A	photosynthesis	combustion of hydrocarbons
B	photosynthesis	cracking of hydrocarbons
C	respiration	combustion of hydrocarbons
D	respiration	cracking of hydrocarbons

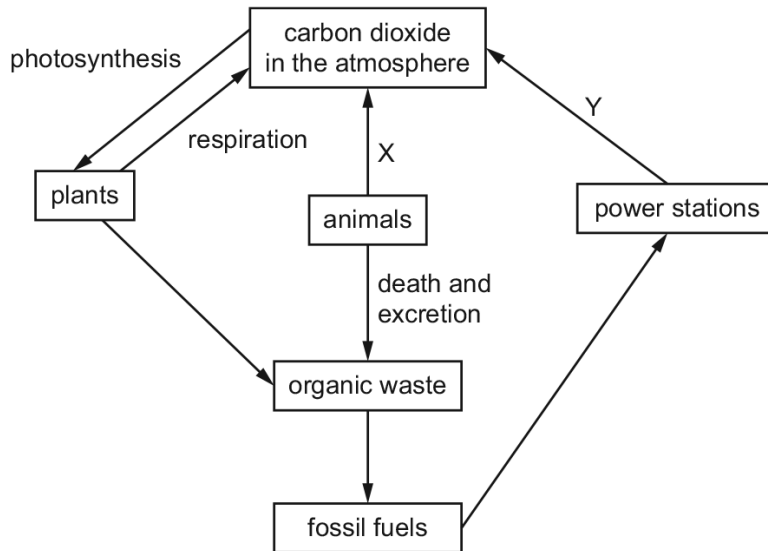
15. 0620_w19_qp_21 Q: 33

Which statement about the carbon cycle is correct?

- A** Carbon is absorbed from the atmosphere by combustion and released into it by respiration.
- B** Carbon is absorbed from the atmosphere by photosynthesis and released into it by combustion.
- C** Carbon is absorbed from the atmosphere by both respiration and combustion.
- D** Carbon is released into the atmosphere by both photosynthesis and respiration.

16. 0620_w19_qp_22 Q: 33

The diagram represents an outline of the carbon cycle.



Which processes are X and Y?

	X	Y
A	combustion	respiration
B	decomposition	respiration
C	photosynthesis	combustion
D	respiration	combustion

17. 0620_w19_qp_23 Q: 33

The following processes are part of the carbon cycle.

- 1 photosynthesis
- 2 combustion
- 3 respiration

Which processes decrease the amount of carbon dioxide in the atmosphere?

- A** 1 only **B** 1 and 2 only **C** 1 and 3 only **D** 2 and 3 only

11.4. CARBON DIOXIDE AND METHANE

18. 0620_m18_qp_22 Q: 30

Which processes do **not** produce carbon dioxide?

- 1 heating limestone
- 2 burning gasoline in car engines
- 3 photosynthesis
- 4 production of nylon

A 1 and 2 **B** 1 and 3 **C** 2 and 4 **D** 3 and 4

19. 0620_m18_qp_22 Q: 32

Which pollutant gas is produced by the decomposition of vegetation?

- A** carbon monoxide
B methane
C nitrogen dioxide
D sulfur dioxide
-

20. 0620_s18_qp_21 Q: 32

Which statements about the carbon cycle are correct?

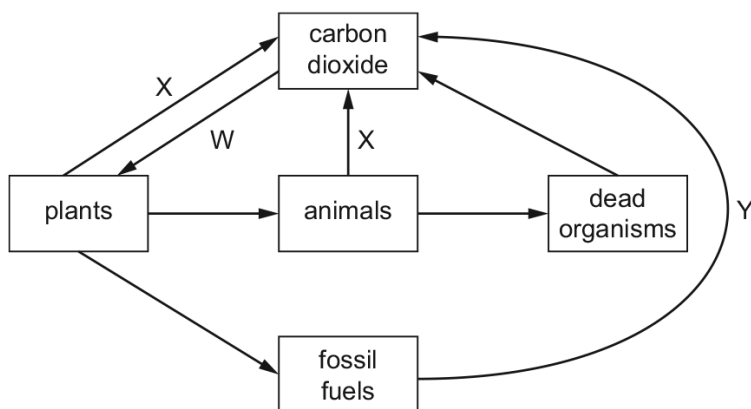
- 1 Carbon dioxide is added to the atmosphere by respiration.
- 2 Carbon dioxide is added to the atmosphere by combustion of coal.
- 3 Carbon dioxide is removed from the atmosphere by photosynthesis.

A 1, 2 and 3 **B** 1 and 2 only **C** 1 and 3 only **D** 2 and 3 only

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21. 0620_w18_qp_21 Q: 32

A diagram of the carbon cycle is shown.



Which processes are represented by the letters W, X and Y?

	W	X	Y
A	photosynthesis	combustion	respiration
B	photosynthesis	respiration	combustion
C	respiration	combustion	photosynthesis
D	respiration	photosynthesis	combustion

22. 0620_w18_qp_22 Q: 32

In the carbon cycle, which two processes add carbon dioxide to the atmosphere?

- A** combustion and carbonate formation
- B** combustion and photosynthesis
- C** combustion and respiration
- D** respiration and photosynthesis

23. 0620_w18_qp_23 Q: 32

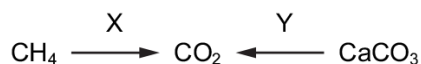
Which statement about the carbon cycle is correct?

- A** Animals and plants need carbon dioxide for respiration.
- B** Combustion of plants and natural gas produces carbon dioxide.
- C** Plants produce glucose from carbon dioxide and oxygen.
- D** Oxygen is produced by both animals and plants.

11.4. CARBON DIOXIDE AND METHANE

24. 0620_m17_qp_22 Q: 32

Two reactions, X and Y, produce carbon dioxide.



Which types of reaction are X and Y?

	X	Y
A	combustion	combustion
B	combustion	thermal decomposition
C	thermal decomposition	combustion
D	thermal decomposition	thermal decomposition

25. 0620_s17_qp_21 Q: 31

Photosynthesis and respiration are important natural processes.

Which statement is correct?

- A** Carbon dioxide is formed by the reaction of glucose with water during photosynthesis.
- B** Carbon dioxide is removed from the air by respiration.
- C** Glucose reacts with water to form oxygen during respiration.
- D** Photosynthesis produces glucose and oxygen.

26. 0620_s17_qp_22 Q: 30

The carbon cycle includes the processes combustion, photosynthesis and respiration.

Which row shows how each process changes the amount of carbon dioxide in the atmosphere?

	combustion	photosynthesis	respiration
A	decreases	decreases	increases
B	decreases	increases	decreases
C	increases	decreases	increases
D	increases	increases	decreases

27. 0620_s17_qp_23 Q: 30

The carbon cycle describes how carbon dioxide gas is added to or removed from the atmosphere.

Which row describes the movement of carbon dioxide during each process?

	photosynthesis	combustion	respiration
A	added to the atmosphere	added to the atmosphere	removed from the atmosphere
B	added to the atmosphere	removed from the atmosphere	added to the atmosphere
C	removed from the atmosphere	added to the atmosphere	added to the atmosphere
D	removed from the atmosphere	added to the atmosphere	removed from the atmosphere

28. 0620_w17_qp_21 Q: 32

Which process does **not** produce carbon dioxide?

- A** combustion of alkanes
- B** photosynthesis
- C** respiration
- D** thermal decomposition of limestone

29. 0620_w17_qp_22 Q: 32

Which process removes carbon dioxide from the atmosphere?

- A** combustion of fossil fuels
- B** decomposition of carbonates
- C** photosynthesis
- D** respiration

30. 0620_w17_qp_23 Q: 32

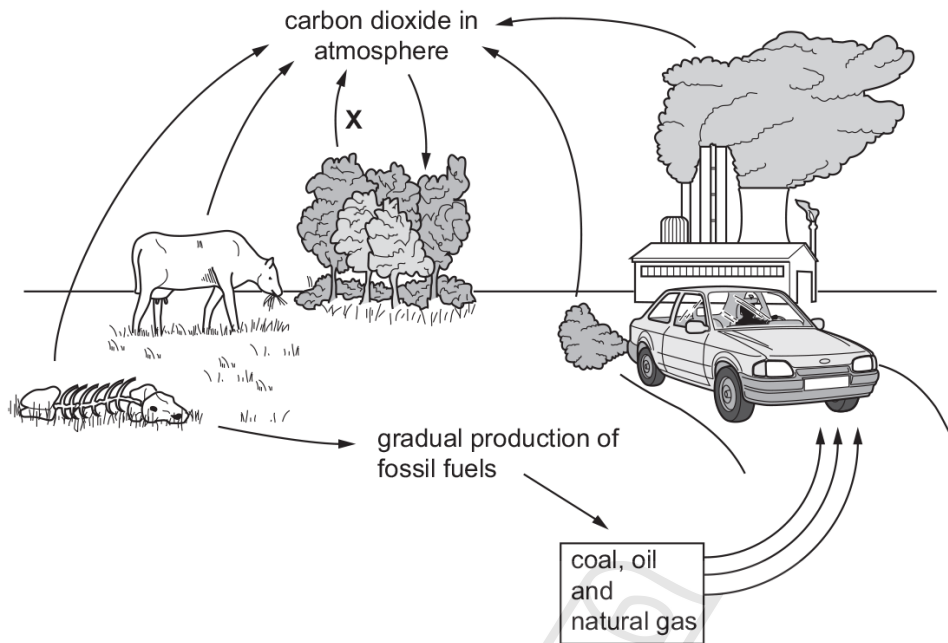
Which process does **not** produce carbon dioxide?

- A** combustion of methane
- B** photosynthesis
- C** respiration
- D** thermal decomposition of calcium carbonate

11.4. CARBON DIOXIDE AND METHANE

31. 0620_p16_qp_20 Q: 31

The diagram shows the carbon cycle.



Which process is shown by the arrow marked X?

- A combustion
- B photosynthesis
- C respiration
- D transpiration

32. 0620_w16_qp_21 Q: 30

Which information about carbon dioxide and methane is correct?

		carbon dioxide	methane
A	formed when vegetation decomposes	✓	✗
B	greenhouse gas	✓	✓
C	present in unpolluted air	✗	✗
D	produced during respiration	✗	✓

key
 ✓ = true
 ✗ = false

SN	Paper	Q. No.	Answer
01	0620_m21_qp_22	31	B
02	0620_s21_qp_21	30	C
03	0620_s21_qp_22	32	C
04	0620_w21_qp_22	30	D
05	0620_p20_qp_20	31	C
06	0620_s20_qp_21	30	C
07	0620_s20_qp_22	30	A
08	0620_s20_qp_23	30	B
09	0620_w20_qp_21	34	B
10	0620_w20_qp_22	33	B
11	0620_m19_qp_22	34	C
12	0620_s19_qp_21	32	C
13	0620_s19_qp_22	30	D
14	0620_s19_qp_23	31	A
15	0620_w19_qp_21	33	B
16	0620_w19_qp_22	33	D
17	0620_w19_qp_23	33	A
18	0620_m18_qp_22	30	D
19	0620_m18_qp_22	32	B
20	0620_s18_qp_21	32	A
21	0620_w18_qp_21	32	B
22	0620_w18_qp_22	32	C
23	0620_w18_qp_23	32	B
24	0620_m17_qp_22	32	B
25	0620_s17_qp_21	31	D
26	0620_s17_qp_22	30	C
27	0620_s17_qp_23	30	C
28	0620_w17_qp_21	32	B
29	0620_w17_qp_22	32	C
30	0620_w17_qp_23	32	B
31	0620_p16_qp_20	31	C
32	0620_w16_qp_21	30	B