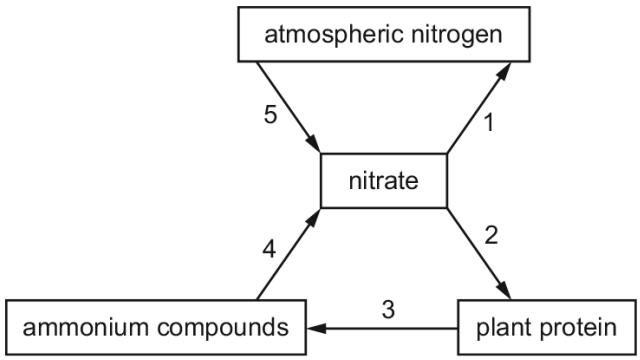
19.3 Nutrientcycles

01. 0610_m22_qp_22 Q: 37

The diagram shows some of the stages involved in the nitrogen cycle.



Which processes are carried out at each stage?

	absorption	decomposition	denitrification	nitrification	nitrogen fixation
A	2	4	5	1	3
B	2	3	1	4	5
C	1	5	2	3	4
D	1	2	3	5	4

---

02. 0610_m21_qp_22 Q: 40

The action of which type of bacteria would cause soil to be lacking in nitrates?

A aerobic

B denitrifying

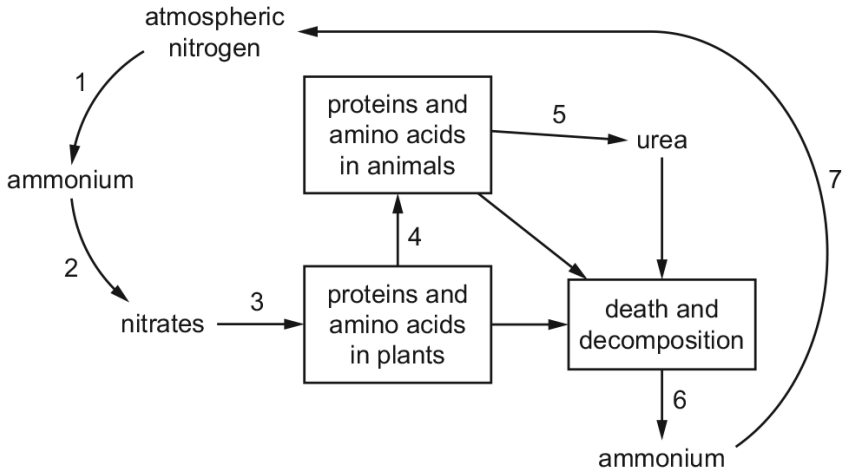
C nitrifying

D nitrogen fixing

---

03. 0610_w21_qp_22 Q: 36

The diagram shows part of the nitrogen cycle.



Which processes are carried out by bacteria?

A 1, 2, 3 and 4

B 1, 2, 4 and 5

C 1, 2, 5 and 6

D 1, 2, 6 and 7

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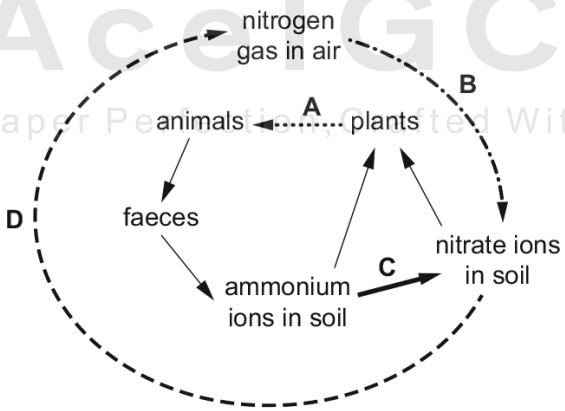
04. 0610_w21_qp_23 Q: 36

The diagram shows part of the nitrogen cycle.

Which letter represents denitrification?



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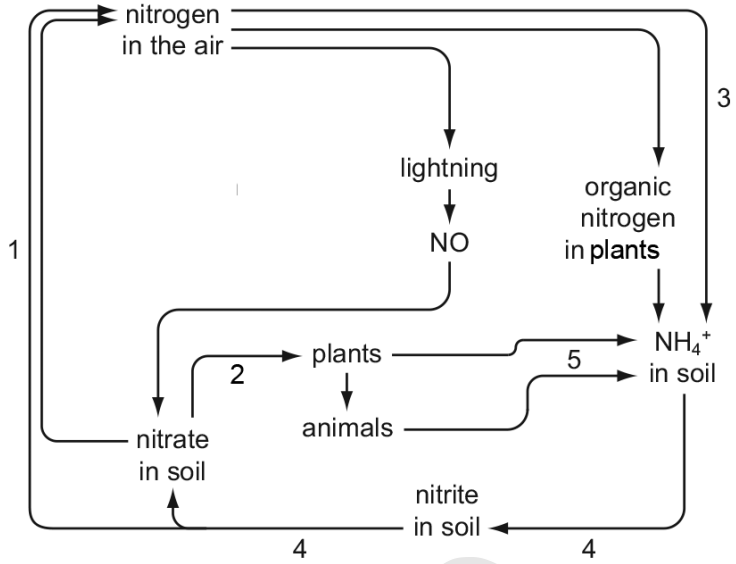
05. 0610_p20_qp_20 Q: 35

The diagram shows the circulation of nitrogen in nature.



What is correct?

	denitrification	nitrification	nitrogen fixation
A	1	5	3
B	2	5	4
C	3	2	1
D	1	4	3

06. 0610_s20_qp_21 Q: 39

Which process in the nitrogen cycle is involved in the breakdown of amino acids in living organisms?

A deamination

B decomposition

C denitrification

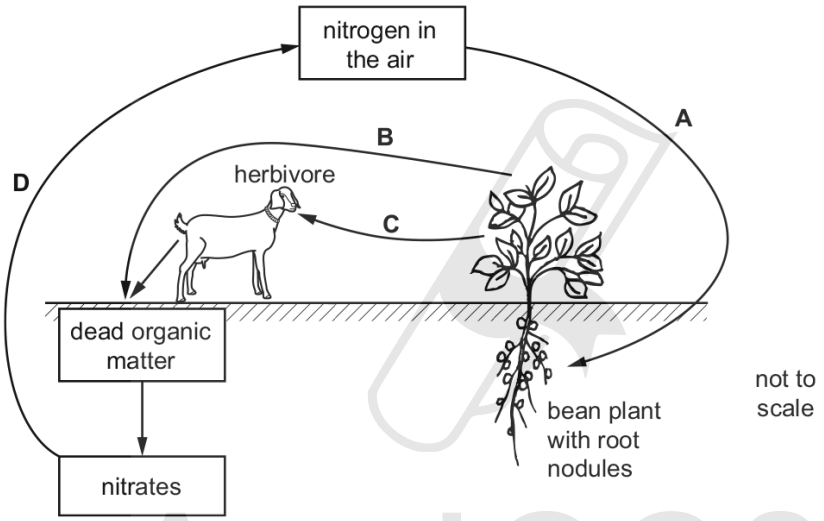
D digestion

---

07. 0610_w20_qp_21 Q: 36

The diagram shows some of the stages in the nitrogen cycle.

Which arrow represents the process of nitrogen fixation?



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08. 0610_w20_qp_22 Q: 36

Bacteria are active in the nitrogen cycle.

Which process in the nitrogen cycle is carried out by nitrifying bacteria?

A the conversion of nitrogen gas to ammonia

B the conversion of nitrogen gas to nitrates

C the conversion of ammonia to nitrates

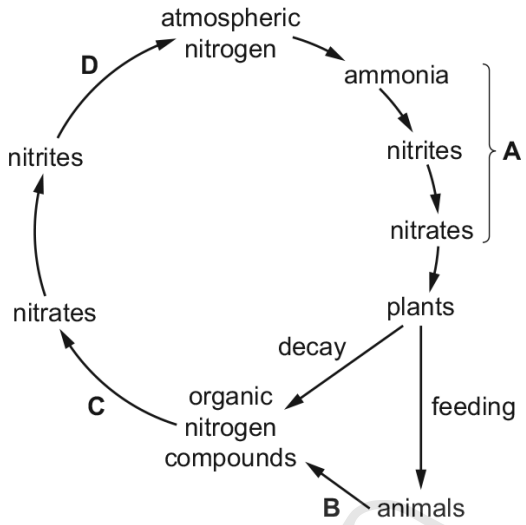
D the conversion of nitrates to nitrogen

---

09. 0610_w20_qp_23 Q: 35

The diagram shows part of the nitrogen cycle.

Which letter represents denitrification?



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10. 0610_m19_qp_22 Q: 36

Which organisms are responsible for removing nitrate ions from soil?

A denitrifying bacteria and nitrogen-fixing bacteria in root nodules

B denitrifying bacteria and plants

C nitrifying bacteria and plants

D nitrogen-fixing bacteria in root nodules

---

11. 0610_s19_qp_21 Q: 36

Decomposers play an important role in the carbon cycle. They release carbon dioxide.

Which process is responsible for this?

A feeding

B fossilisation

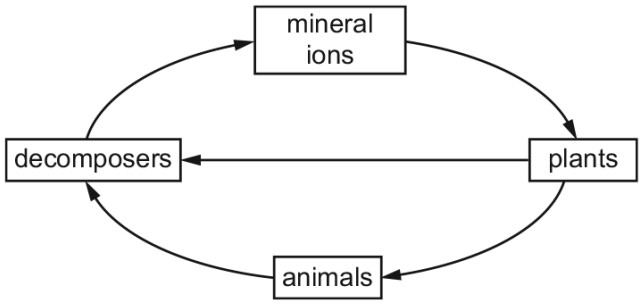
C photosynthesis

D respiration

---

12. 0610_w19_qp_21 Q: 36

The diagram shows part of the nitrogen cycle.



What is one of the mineral ions?

A amino acids

B nitrate

C nitrogen

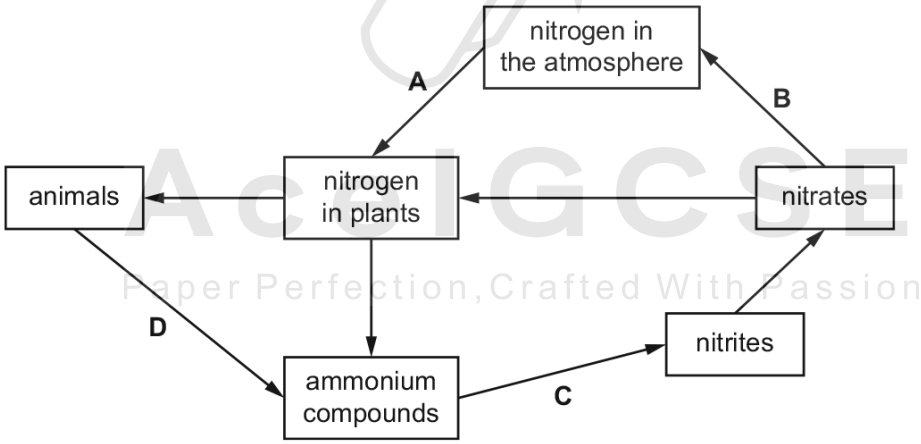
D protein

---

13. 0610_w19_qp_22 Q: 36

The diagram shows part of the nitrogen cycle.

At which stage is denitrification occurring?



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14. 0610_w19_qp_23 Q: 34

What could be responsible for the conversion of nitrogen in the atmosphere to nitrates in the soil?

A decomposers

B denitrifying bacteria

C lightning

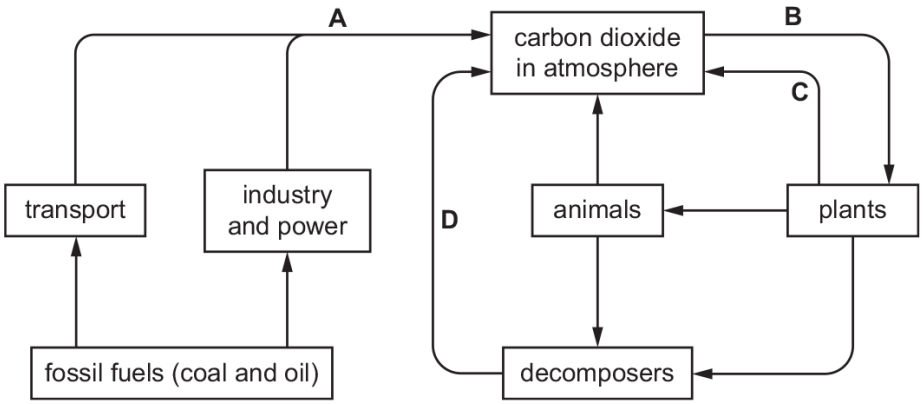
D nitrifying bacteria

---

15. 0610_m18_qp_22 Q: 33

The diagram shows part of the carbon cycle.

Which process reduces the carbon dioxide content of the atmosphere?



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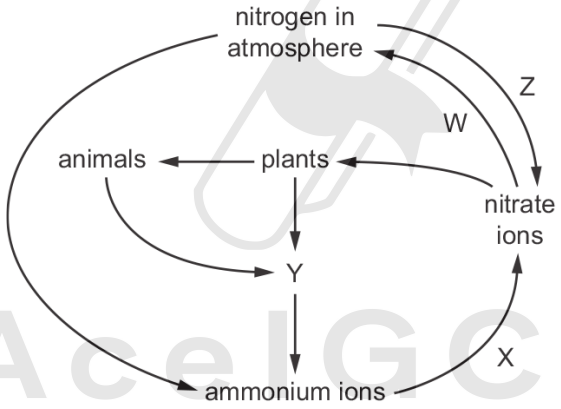
16. 0610_w18_qp_21 Q: 35

The diagram shows part of the nitrogen cycle.



Which row correctly identifies the bacteria involved in processes W, X, Y and Z?

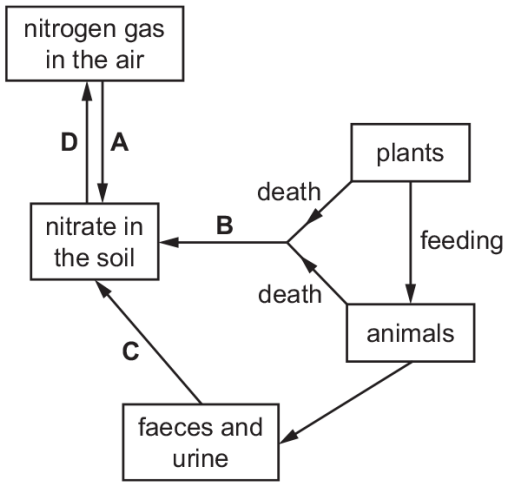
	W	X	Y	Z
A	denitrifying	decomposer	nitrifying	nitrogen-fixing
B	denitrifying	nitrifying	decomposer	nitrogen-fixing
C	nitrifying	decomposer	nitrogen-fixing	denitrifying
D	nitrogen-fixing	nitrifying	decomposer	denitrifying

---

17. 0610_w18_qp_22 Q: 36

The diagram shows part of the nitrogen cycle.

Which change is caused by the action of denitrifying bacteria?



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18. 0610_m17_qp_22 Q: 36

Which process results in the loss of nitrates from soils?

A deamination

B decomposition

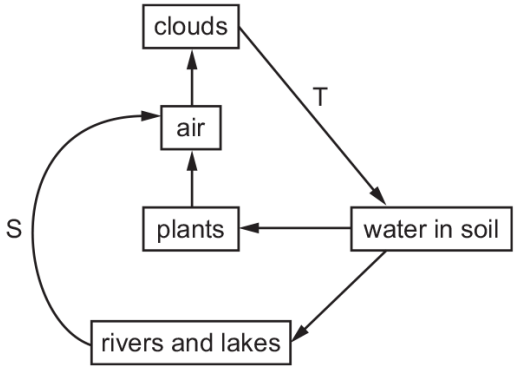
C denitrification

D nitrification

---

19. 0610_s17_qp_23 Q: 36

The diagram shows part of the water cycle.



What are processes S and T?

	S	T
A	condensation	drainage
B	condensation	evaporation
C	evaporation	precipitation
D	evaporation	transpiration

---

20. 0610_w17_qp_21 Q: 35

Nitrogen in the air cannot be used by plants until it is in the form of nitrates.

Which two processes convert nitrogen from the air into nitrates?

A decomposition of faeces and nitrification

B denitrification and lightning

C nitrogen fixation by bacteria and denitrification

D nitrogen fixation by bacteria and lightning

---

21. 0610_w17_qp_22 Q: 39

The action of which type of bacteria would cause soil to be lacking in nitrates?

A aerobic

B denitrifying

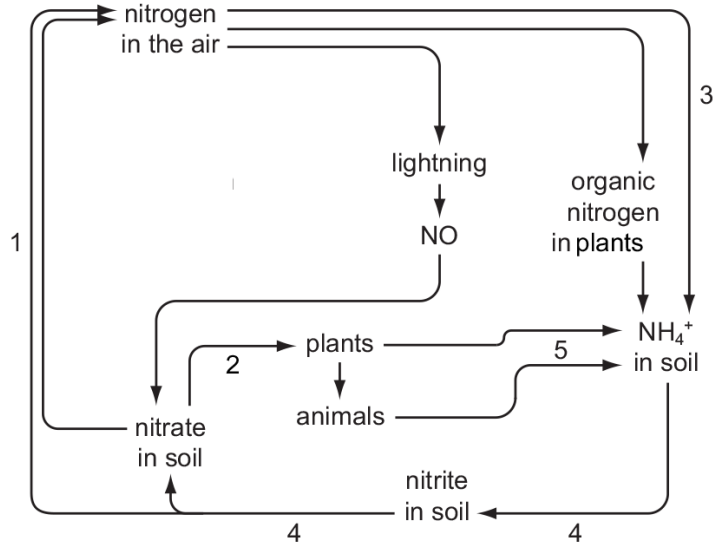
C nitrifying

D nitrogen fixing

---

22. 0610_p16_qp_20 Q: 35

The diagram shows the circulation of nitrogen in nature.



What is correct?

	denitrification	nitrification	nitrogen fixation
A	1	5	3
B	2	5	4
C	3	2	1
D	1	4	3

---

23. 0610_s16_qp_22 Q: 19

What are the approximate percentages of oxygen and carbon dioxide in atmospheric air?

	oxygen / %	carbon dioxide / %
A	16	4.00
B	16	8.00
C	20	0.04
D	20	4.00

---

24. 0610_s16_qp_23 Q: 36

Which process is **not** part of the water cycle?

A condensation

B fossilisation

C precipitation

D transpiration

---

25. 0610_s16_qp_23 Q: 37

Which process is carried out by bacteria in the root nodules of leguminous plants?

A decomposition

B denitrification

C nitrification

D nitrogen fixation

---

26. 0610_w16_qp_21 Q: 11

The roots of plants take up nitrates from the soil.

What are the nitrates used to make?

A fat

B glucose

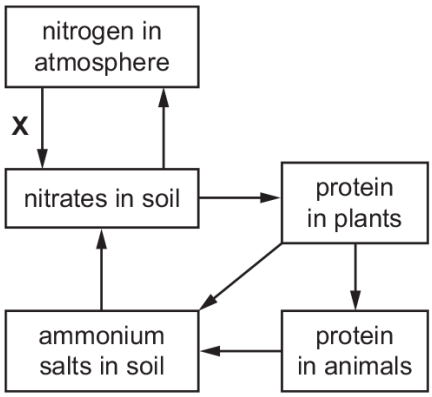
C protein

D starch

---

27. 0610_w16_qp_21 Q: 35

The diagram shows part of the nitrogen cycle.



What could be responsible for process **X**?

A decomposers

B denitrifying bacteria

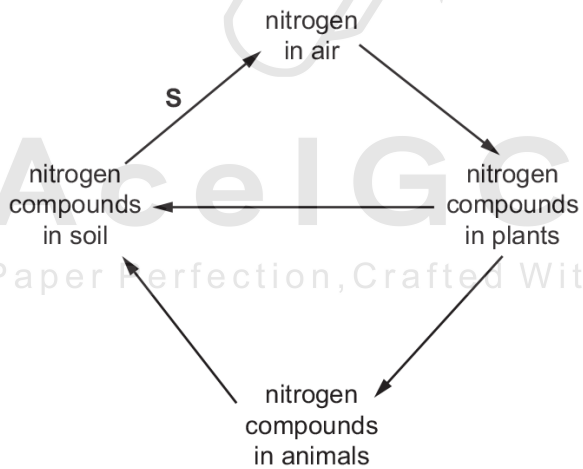
C lightning

D nitrifying bacteria

---

28. 0610_w16_qp_23 Q: 35

The diagram shows part of the nitrogen cycle.



What is process **S**?

A denitrification

B nitrification

C nitrogen fixation

D nutrition

SN	Paper	Q. No.	Answer
01	0610_m22_qp_22	37	B
02	0610_m21_qp_22	40	B
03	0610_w21_qp_22	36	D
04	0610_w21_qp_23	36	D
05	0610_p20_qp_20	35	D
06	0610_s20_qp_21	39	A
07	0610_w20_qp_21	36	A
08	0610_w20_qp_22	36	C
09	0610_w20_qp_23	35	D
10	0610_m19_qp_22	36	B
11	0610_s19_qp_21	36	D
12	0610_w19_qp_21	36	B
13	0610_w19_qp_22	36	B
14	0610_w19_qp_23	34	C
15	0610_m18_qp_22	33	B
16	0610_w18_qp_21	35	B
17	0610_w18_qp_22	36	D
18	0610_m17_qp_22	36	C
19	0610_s17_qp_23	36	C
20	0610_w17_qp_21	35	D
21	0610_w17_qp_22	39	B
22	0610_p16_qp_20	35	D
23	0610_s16_qp_22	19	C
24	0610_s16_qp_23	36	B
25	0610_s16_qp_23	37	D
26	0610_w16_qp_21	11	C
27	0610_w16_qp_21	35	C
28	0610_w16_qp_23	35	A