

## 9.2 Periodic trends

01. 0620\_m21\_qp\_22 Q: 22

Metal X reacts with non-metal Y to form an ionic compound with the formula  $X_2Y$ .

Which statements are correct?

- 1 X is in Group I of the Periodic Table.
- 2 X is in Group II of the Periodic Table.
- 3 Y is in Group VI of the Periodic Table.
- 4 Y is in Group VII of the Periodic Table.

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

02. 0620\_s21\_qp\_21 Q: 24

Element R forms a covalent compound  $R_2Si$  with silicon.

Which row describes R?

	metallic or non-metallic character	group number in the Periodic Table
<b>A</b>	metallic	II
<b>B</b>	metallic	VI
<b>C</b>	non-metallic	II
<b>D</b>	non-metallic	VI

03. 0620\_s21\_qp\_22 Q: 22

Which statement about the trends shown by the elements of Period 3 in the Periodic Table is **not** correct?

- A** The elements become less metallic across the period.
- B** The group number increases across the period.
- C** The number of electron shells increases across the period.
- D** The number of outer electrons increases across the period.

9.2. PERIODIC TRENDS

04. 0620\_w21\_qp\_21 Q: 20

Moving from right to left across the Periodic Table the elements show increasing metallic character.

Why does metallic character increase from right to left across a period?

- A The atoms have more electrons in their outer shells.
  - B The atoms more readily gain electrons to form negative ions.
  - C The atoms more readily lose electrons to form positive ions.
  - D The charge on the nucleus of each atom gets larger.
- 

05. 0620\_w21\_qp\_21 Q: 21

A period of the Periodic Table is shown.

group	I	II	III	IV	V	VI	VII	VIII
element	R	S	T	V	W	X	Y	Z

The letters are not their chemical symbols.

Which statement is correct?

- A Element R does not conduct electricity.
  - B Elements R and Y react together to form an ionic compound.
  - C Element Z exists as a diatomic molecule.
  - D Element Z reacts with element T.
- 

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06. 0620\_w21\_qp\_22 Q: 21

A period of the Periodic Table is shown.

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element	R	S	T	V	W	X	Y	Z

The letters are not their chemical symbols.

Which statement is correct?

- A Element R does not conduct electricity.
  - B Elements R and Y react together to form an ionic compound.
  - C Element Z exists as a diatomic molecule.
  - D Element Z reacts with element T.
-

## 9.2. PERIODIC TRENDS

07. 0620\_w21\_qp\_23 Q: 21

A period of the Periodic Table is shown.

group	I	II	III	IV	V	VI	VII	VIII
element	R	S	T	V	W	X	Y	Z

The letters are not their chemical symbols.

Which statement is correct?

- A Element R does not conduct electricity.
- B Elements R and Y react together to form an ionic compound.
- C Element Z exists as a diatomic molecule.
- D Element Z reacts with element T.

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08. 0620\_w20\_qp\_21 Q: 25

Elements P and Q have the same number of electron shells.

Q has more electrons in its outer shell than P.

Which statements are correct?

- 1 P and Q are in the same group of the Periodic Table.
  - 2 P and Q are in the same period of the Periodic Table.
  - 3 P has a greater tendency to form positive ions than Q.
  - 4 The oxides of Q are more basic than those of P.
- A 1 and 3      B 1 and 4      C 2 and 3      D 2 and 4
-

09. 0620\_w20\_qp\_22 Q: 25

Which row about elements in the Periodic Table is correct?

	statement 1	statement 2
<b>A</b>	two elements in the same group have similar chemical properties	metals are on the left of the table
<b>B</b>	two elements in the same group have similar chemical properties	metals are on the right of the table
<b>C</b>	two elements in the same period have similar chemical properties	metals are on the left of the table
<b>D</b>	two elements in the same period have similar chemical properties	metals are on the right of the table

10. 0620\_w20\_qp\_23 Q: 20

Period 3 of the Periodic Table contains the elements sodium to argon.

Element Q is a non-metal from this period.

Which statement about Q is correct?

- A** It conducts electricity.
- B** It has a lower proton number than sodium.
- C** It has electrons in only three shells.
- D** It is malleable.

11. 0620\_m19\_qp\_22 Q: 24

The elements sodium to argon form Period 3 of the Periodic Table.

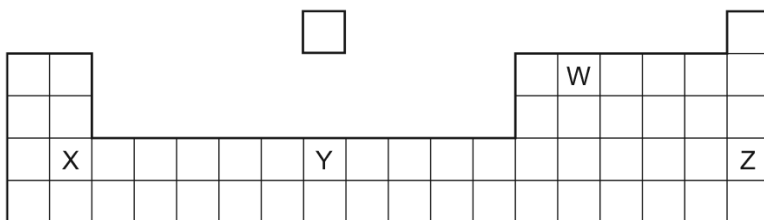
Which row describes the trend across Period 3 from left to right?

	number of outer shell electrons	metallic character	group number
<b>A</b>	decreases	decreases	decreases
<b>B</b>	decreases	increases	decreases
<b>C</b>	increases	decreases	increases
<b>D</b>	increases	increases	increases

9.2. PERIODIC TRENDS

12. 0620\_s19\_qp\_23 Q: 20

Part of the Periodic Table is shown.



Which row describes W, X, Y and Z?

	metal	non-metal
<b>A</b>	X	W, Y and Z
<b>B</b>	X and Y	W and Z
<b>C</b>	W and Z	X and Y
<b>D</b>	W, Y and Z	X

13. 0620\_s18\_qp\_21 Q: 21

Which element is in the same period of the Periodic Table as silicon?

- A** germanium
- B** scandium
- C** sodium
- D** strontium

14. 0620\_s18\_qp\_22 Q: 21

Which statement about the Periodic Table is correct?

- A** Elements in the same group have the same number of electron shells.
- B** It contains elements arranged in order of increasing proton number.
- C** Metals are on the right and non-metals are on the left.
- D** The most reactive elements are at the bottom of every group.

15. 0620\_s18\_qp\_23 Q: 21

Which element is classified as a non-metal in the Periodic Table?

- A calcium
  - B chlorine
  - C chromium
  - D copper
- 

16. 0620\_m17\_qp\_22 Q: 22

Which property of elements increases across a period of the Periodic Table?

- A metallic character
  - B number of electron shells
  - C number of outer shell electrons
  - D tendency to form positive ions
- 

17. 0620\_w17\_qp\_21 Q: 21

Which statements about the trends across a period of the Periodic Table are correct?

- 1 Aluminium is more metallic than sodium.
- 2 Beryllium is more metallic than carbon.
- 3 Boron is more metallic than lithium.
- 4 Magnesium is more metallic than silicon.

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

18. 0620\_w17\_qp\_22 Q: 21

Which statement about nitrogen and phosphorus is **not** correct?

- A Both are in the same group of the Periodic Table.
  - B Both are in the same period of the Periodic Table.
  - C Both are non-metals.
  - D Both have the same number of electrons in their outer shell.
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SN	Paper	Q. No.	Answer
01	0620_m21_qp_22	22	A
02	0620_s21_qp_21	24	D
03	0620_s21_qp_22	22	C
04	0620_w21_qp_21	20	C
05	0620_w21_qp_21	21	B
06	0620_w21_qp_22	21	B
07	0620_w21_qp_23	21	B
08	0620_w20_qp_21	25	C
09	0620_w20_qp_22	25	A
10	0620_w20_qp_23	20	C
11	0620_m19_qp_22	24	C
12	0620_s19_qp_23	20	B
13	0620_s18_qp_21	21	C
14	0620_s18_qp_22	21	B
15	0620_s18_qp_23	21	B
16	0620_m17_qp_22	22	C
17	0620_w17_qp_21	21	C
18	0620_w17_qp_22	21	B
19	0620_w17_qp_23	21	B
20	0620_m16_qp_22	23	A
21	0620_p16_qp_20	26	C
22	0620_s16_qp_21	21	A
23	0620_w16_qp_22	24	C

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