

Name: _____
Period: _____

The Periodic Table Practice Test

1. In your own words, sum up the periodic law.
2. In the Periodic Table, rows are known as _____.
3. In the Periodic Table, columns are known as _____.
4. Group 1 is referred to as _____.
5. Group 2 is referred to as _____.
6. Groups 3 through 12 are known as _____.
7. Group 17 is known as _____.
8. Group 18 is known as _____.
9. There are two major families in the periodic table. What are they?
10. How did Mosley arrange his periodic table?
11. How did Mendeleev arrange his periodic table?
12. Explain the difference in ionization energy for sodium and magnesium.
13. True or false. Non-metals are an excellent conductor of electricity.
14. Argon is in group 18. Does group 18 have a high reactivity rate or a low reactivity rate? Why?
15. As you move down Group 1, does reactivity increase or decrease? Why?
16. As you move down group 17, does reactivity increase or decrease? Why?
17. Lithium is a shiny metal. When cut, it dulls quickly. It also reacts violently with water. Name another element that would possibly show the same characteristics.
18. This group of elements are harder, stronger than group 1. They also have a higher melting point. Which group are they?
19. This group of elements means "salt-former." They are very reactive. They have an s^2p^5 electron configuration. Which group are they?

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20. Which has the higher ionization energy (answer all four)?

- a. Sodium vs. Magnesium
- b. Oxygen vs. Fluorine
- c. Iodine vs. Bromine
- d. Lithium vs. Sodium

21. Which is larger? Nitrogen vs. Oxygen

- a. Ionization Energy
- b. Atomic Radius
- c. Electronegativity

22. Which is larger? Magnesium vs. Calcium

- a. Ionization Energy
- b. Atomic Radius
- c. Electronegativity

23. State the Trend.

Trend	Down	Across
Ionization Energy		
Atomic Radius		
Electronegativity		

24. In 2-3 sentences, state why the downwards trend of atomic radius occurs that way.

25. In 2-3 sentences, state why the across trend of ionization energy occurs that way.

26. In 2-3 sentences, state why the across trend of melting point occurs that way.

Identify the following elements.

27. Period 4, Group 12

28. Filled with the $2p^5$ electron.

29. Ninth electron in the 4d sub-level.

30. Calcium is in this row.

31. Nitrogen is in this column.

32. Chlorine is in this group.