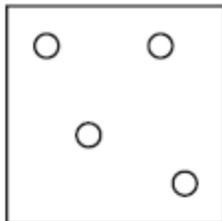
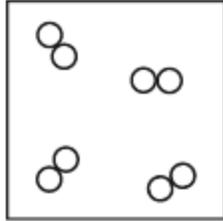
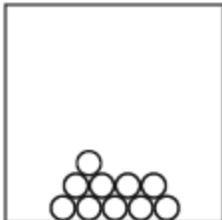
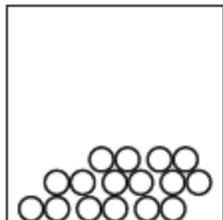


- Which list of elements consists of a metal, a metalloid, and a nonmetal?
 - Li, Na, Rb
 - Cr, Mo, W
 - Sn, Si, C
 - O, S, Te
- The elements on the Periodic Table are arranged in order of increasing
 - atomic mass
 - atomic number
 - molar mass
 - oxidation number
- Which list includes elements with the most similar chemical properties?
 - Br, Ga, Hg
 - Cr, Pb, Xe
 - O, S, Se
 - N, O, F
- The elements in Group 2 are classified as
 - metals
 - metalloids
 - nonmetals
 - noble gases
- Compared to the atoms of nonmetals in Period 3, the atoms of metals in Period 3 have
 - fewer valence electrons
 - more valence electrons
 - fewer electron shells
 - more electron shells
- In the formula XF_2 , the element represented by X can be classified as a
 - Group 1 metal
 - Group 2 metal
 - Group 1 nonmetal
 - Group 2 nonmetal
- A solid element that is malleable, a good conductor of electricity, and reacts with oxygen is classified as a
 - metal
 - metalloid
 - noble gas
 - nonmetal

- Which particle diagram represents the arrangement of F_2 molecules in a sample of fluorine at 95 K and standard pressure?

Key
○ = atom of fluorine

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- Which property is characteristic of nonmetals?
 - They have a high electronegativity.
 - They lose electrons easily.
 - They have a low first ionization energy.
 - They are good conductors of electricity.
- Which statement explains why neon is a Group 18 element?
 - Neon is a gas at STP.
 - Neon has a low melting point.
 - Neon atoms have a stable valence electron configuration.
 - Neon atoms have two electrons in the first shell.
- Which group in the Periodic Table contains elements that are all monatomic gases at STP?
 - 15
 - 16
 - 17
 - 18
- Which Group 14 element is a metalloid?
 - tin
 - silicon
 - lead
 - carbon

Do Now Unit 4 Periodic Table

13. Which element is malleable and a good conductor of electricity at STP?
- A) argon B) carbon
C) iodine D) silver
14. The two forms of oxygen, $O_2(g)$ and $O_3(g)$, have
- A) different molecular structures and identical properties
B) different molecular structures and different properties
C) identical molecular structures and identical properties
D) identical molecular structures and different properties
15. Which Lewis electron-dot diagram represents a nitrogen atom in the ground state?
- A) \ddot{N} B) $\cdot\ddot{N}\cdot$
C) $\cdot\ddot{N}\cdot$ D) $:\ddot{N}:$
16. Which Lewis electron-dot diagram is correct for a S^{2-} ion?
- A) $[\cdot\ddot{S}\cdot]^{2-}$ B) $[\ddot{S}]^{2-}$
C) $[\ddot{S}]^{2-}$ D) $[\ddot{S}]^{2-}$
17. Which ion has *no* electrons?
- A) H^+ B) Li^+ C) Na^+ D) Rb^+
18. An atom of aluminum in the ground state and an atom of gallium in the ground state have the same
- A) mass
B) electronegativity
C) total number of protons
D) total number of valence electrons
19. An aqueous solution of XCl_2 contains colored ions. Element X could be
- A) Ba B) Ca C) Ni D) Bi
20. What is the net charge of an ion that has 8 protons, 9 neutrons, and 10 electrons?
- A) $1+$ B) $2+$ C) $1-$ D) $2-$
21. An atom of an element forms a 2^+ ion. In which group on the Periodic Table could this element be located?
- A) 1 B) 2 C) 13 D) 17
22. An atom of which element has the largest atomic radius?
- A) Fe B) Mg C) Si D) Zn
23. As the elements in Period 3 are considered in order of increasing atomic number, there is a general *decrease* in
- A) atomic mass
B) atomic radius
C) electronegativity
D) first ionization energy
24. When an atom of phosphorus becomes a phosphide ion (P^{3-}), the radius
- A) decreases B) increases
C) remains the same
25. Which atom has the *weakest attraction for the electrons in a bond with an H atom*?
- A) Cl atom B) F atom
C) O atom D) S atom
26. Which statement describes the general trends in metallic properties as the elements in Period 2 are considered in order of increasing atomic number?
- A) Metallic properties remains same.
B) Metallic properties increase.
C) Metallic properties increase and then decrease.
D) Metallic properties decrease.
27. Samples of four Group 15 elements, antimony, arsenic, bismuth, and phosphorus, are in the gaseous phase. An atom in the ground state of which element requires the *least* amount of energy to remove its most loosely held electron?
- A) As B) Bi C) P D) Sb
28. In the ground state, each atom of an element has two valence electrons. This element has a lower first ionization energy than calcium. Where is this element located on the Periodic Table?
- A) Group 1, Period 4 B) Group 2, Period 5
C) Group 2, Period 3 D) Group 3, Period 4

Do Now Unit 4 Periodic Table

29. Which element is most chemically similar to chlorine?

- A) Ar B) F C) Fr D) S

30. In Period 3, from left to right in order, each successive element will

- A) decrease in electronegativity
B) decrease in atomic mass
C) increase in number of protons
D) increase in metallic character
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