

Bonding Review

1. **(Electrons / Protons / Neutrons)** are shared or exchanged during a chemical reaction.
2. If an atom loses one or more electrons, it becomes a positive ion, cation. **(True / False)**
3. Two or more non-metal atoms will share their valence electrons to make it stable like a noble gas. **(True / False)**
4. When N atom bonds with an O atom, a diatomic molecule is formed. **(True / False)**
5. If an atom gains one or more electrons, it becomes a negative ion, anion. **(True / False)**
6. If Cl atom bonds with another Cl atom, a diatomic molecule is formed. **(True / False)**
7. A chemical formula represents a(n) **(element / compound)**
8. Metallic atoms **(lose / gain)** electrons. **(True / False)**
9. Non-metallic atoms when bonding with metals will **(lose / gain)** electrons. **(True / False)**
10. Valence is the number of electrons an atom has. **(True / False)**
11. Every element has the same valence. **(True / False)**
12. Some elements have more than one valence. **(True / False)**
13. An atom with a + valence lends electrons. **(True / False)**
14. An atom with a – valence borrows electrons. **(True / False)**
15. An atom with a +2 valence can borrow two electrons. **(True / False)**
16. An atom with a valence of +2 can lend two electrons. **(True / False)**
17. An atom with 6 outer-ring electrons can lend 3 electrons. **(True / False)**
18. An atom with 7 outer-ring electrons has a valence of -1. **(True / False)**
19. An atom with 7 outer-ring electrons can borrow 1 electron. **(True / False)**

20. Complete the following Chart:

	# of protons	# of electrons	# of valence electrons	Electrons lost or gained	Cation or Anion	Valence Number (Charge)
Sodium		11		Loses 1	Cation	+1
Oxygen				Gains 2		
Magnesium	12					
Chlorine					Anion	
Aluminum			3			