

| | | |
|---------------------|---------------------|-------------------|
| 1+ | 1 | |
| | 1 | |
| 1 | 2+ | Oxidation Number |
| H | -2 | Valence Electrons |
| Hydrogen 1.008 | 2 | Family |
| 3 | 4 | |
| Li | Be | |
| Lithium 6.941 | Boron 9.0122 | |
| 11 | 12 | |
| Na | Mg | |
| Sodium 22.990 | Magnesium 24.305 | |
| 19 | 20 | |
| K | Ca | |
| Potassium 39.098 | Calcium 40.078 | |

| | | | | | | |
|-------------------|-------------------|--------------------|----------------------|-------------------|--------------------|------------------|
| Oxidation Number | 3+ | 4+/- | 3- | 2- | 1- | 0 |
| Valence Electrons | 3 | 4 | 5 | 6 | 7 | 8 |
| Family | 3 | 4 | 5 | 6 | 7 | He |
| | B | C | N | O | F | Ne |
| | Boron 10.81 | Carbon 12.011 | Nitrogen 14.007 | Oxygen 15.999 | Fluorine 18.998 | Neon 20.180 |
| | 13 | 14 | 15 | 16 | 17 | Ar |
| | Al | Si | P | S | Cl | Argon 39.948 |
| | Aluminum 26.98 | Silicon 28.086 | Phosphorus 30.974 | Sulfur 32.06 | Chlorine 35.453 | |
| | 31 | 32 | 33 | 34 | 35 | Kr |
| | Ga | Ge | As | Se | Br | Krypton 83.80 |
| | Gallium 69.72 | Germanium 72.61 | Arsenic 74.932 | Selenium 78.95 | Bromine 79.904 | |

| Some Polyatomic Ions and their Oxidation Numbers | | | | |
|--|---|------------------------------|------------------------------|--|
| 1+ | 1- | 2- | 3- | |
| ammonium (NH ₄) | acetate (C ₂ H ₃ O ₂) | carbonate (CO ₃) | phosphate (PO ₄) | |
| | chlorate (ClO ₃) | sulfate (SO ₄) | | |
| | hydroxide (OH) | | | |
| | nitrate (NO ₃) | | | |
| | bicarbonate(HNO ₃) | | | |

| | Symbols & Oxidation # | Formula | Name of Compound |
|------------------------------|-----------------------|---------|------------------|
| 19. Sodium and chlorine | | | |
| 20. Magnesium and oxygen | | | |
| 21. Potassium and chlorate | | | |
| 22. Ammonium and hydroxide | | | |
| 23. Potassium and phosphorus | | | |
| 24. Aluminum and bromine | | | |

25. An ion is an atom or group of atoms that has become electrically _____.

26. When an atom loses an electron its charge is (**positive or negative**)

27. An ionic bond is the attraction between (**opposites, positive, neutral, or negative**) ions.

28. Ionic compounds are electrically (**charged, positive, neutral, or negative**).

29. The sum of the charges for an ionic compound is _____.

The two answers must be in the right order.

30. An ionic compound is the result of the bonding of a (**non-metal, metalloid, metal, noble gas**) with a (**non-metal, metalloid, metal**).