1. Which statement is true about ionic compound naming and formula writing?
   1. Prefixes are used when writing ionic compound names.
   2. The cation and anion both end in -ide.
   3. Formulas are written with the anion first and the cation second.
   4. **Formulas are written in the simplest, whole number ratio.**
   5. Roman numerals are always written after the cation in a name.
2. Which ionic compound formulas are written **incorrectly**? Select any that apply.
   1. **LiCl2**
   2. MgO
   3. FeCl3
   4. **Al3N3**
   5. Ca3P2
3. Which ionic compound names are written **incorrectly**? Select any that apply.
   1. Rubidium oxide
   2. **Strontium (II) chloride**
   3. **Titanium oxide**
   4. **Nitrogen calcide**
   5. A group of white circles on a black background

      Description automatically generatedLithium sulfide
4. What ionic compound name matches the formula represented by the picture? The small circles are cations, and the large circles are anions.
   1. Lithium bromide
   2. Sodium oxide
   3. Aluminum sulfate
   4. Calcium nitride
   5. **Magnesium chloride**
5. How do the structures for ionic and covalent compounds differ?
   1. Ionic compounds exist as discrete molecules, while covalent compounds form a crystal lattice.
   2. **Covalent compounds exist as discrete molecules, while ionic compounds form a crystal lattice.**
   3. Ionic compounds sometimes form discrete molecules, while covalent compounds always form discrete molecules.
   4. The structures aren’t different; both form a crystal lattice.
   5. The structures aren’t different; both form discrete molecules.
6. Which statement is **false** about writing binary covalent compound names and formulas?
   1. The second word in a name ends in -ide.
   2. The prefix mono is not used with the first word in a name.
   3. **Prefixes are never used with the first word in a name.**
   4. Prefixes are always used with the second word in a name.
   5. Formulas are not necessarily written in their simplest, whole number ratios.
7. Which covalent compound names are written **incorrectly** based on their formulas? Select any that apply.
   1. NO, Nitrogen monoxide
   2. **SO2, Monosulfur dioxide**
   3. N2O3, Dinitrogen trioxide
   4. **IBr3, Iodine bromide**
   5. S3Cl3, Trisulfur trichloride
8. Which name is correctly matched to a chemical formula?
   1. CaF2, calcium difluoride
   2. CO2, monocarbon dioxide
   3. FeO, iron oxide
   4. **AlCl3, aluminum chloride**
   5. SiBr4, silicon perbromide
9. Polyatomic ions combine with \_\_\_\_\_\_\_\_\_\_\_\_ to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_ compounds.
   1. Nonmetals, covalent
   2. Metals, ionic
   3. **Other ions, ionic**
   4. Other ions, covalent
   5. Nonmetals, ionic
10. Which statement is true about naming and writing formulas with polyatomic ions?
    1. The polyatomic’s ending changes in a name.
    2. Polyatomic ions are always written first in a formula and name.
    3. The charge is written beside the polyatomic ion when it’s in a compound.
    4. Parentheses are always written around the polyatomic ion in a formula.
    5. **None of the statements are true.**
11. Which oxyanion formula is correctly matched to its name?
    1. ClO-, chlorate
    2. **ClO4-, perchlorate**
    3. ClO3-, chlorite
    4. ClO2-, hypochlorite
12. How is an acid’s formula different from other types of substances?
    1. It is composed of two nonmetals.
    2. It will always contain oxygen.
    3. **At least one hydrogen is written first.**
    4. The formula contains any hydrogen.
    5. It will always contain a group 17 element.
13. Which statement is true about binary and oxyacid naming?
    1. **Binary acids begin with the prefix hydro, while oxyacids do not.**
    2. Oxyacids use the prefix hypo, while binary acids use the prefix hydro.
    3. The prefix used by an oxyacid depends on the polyatomic it contains.
    4. Both binary and oxyacids use the suffix -ous.
    5. Binary acids change suffix depending on the number of hydrogens present.
14. Which acid is named correctly?
    1. HClO, chlorous acid
    2. H2S, sulfuric acid
    3. HBr, hypobromous acid
    4. **HI, hydroiodic acid**
    5. HNO2, nitric acid