

WS Chemical Compositions

Directions: Use your reference tables to identify the following symbols. (1 pt. each)

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|-------|-------|--------|-------|
| 1. O | _____ | 7. Na | _____ |
| 2. Si | _____ | 8. Mg | _____ |
| 3. Al | _____ | 9. K | _____ |
| 4. Fe | _____ | 10. N | _____ |
| 5. Ca | _____ | 11. H | _____ |
| 6. C | _____ | 12. Pb | _____ |

Directions: Use your reference tables to identify the chemical compositions of each of the following minerals. Complete each table by listing the elements and how many atoms of each there are in each molecule of the mineral.

Mineral: Magnetite	Formula: Fe_3O_4
Elements in each Molecule	Number of Atoms in each Molecule
<i>Iron</i>	3
<i>Oxygen</i>	4

Mineral: Hematite (5 pts)	Formula:
Elements in each Molecule	Number of Atoms in each Molecule

Mineral: Potassium Feldspar (9 pts)	Formula:
Elements in each Molecule	Number of Atoms in each Molecule

Mineral: Quartz (5 pts)	Formula:
Elements in each Molecule	Number of Atoms in each Molecule

Mineral: Garnet (9 pts)	Formula:
Elements in each Molecule	Number of Atoms in each Molecule

Directions: Answer the following questions.

13. In which ESRT charts can the symbols of elements be found? (2 pts)

14. In which ESRT chart can the chemical composition of common minerals be found? (1 pts)

15. What do the minerals magnetite and hematite have in common? (2 pts)

16. What are the differences between magnetite and hematite? (2 pts)

17. The Silicates are the largest mineral family on Earth. Every mineral in this family has some combination of Silicon and Oxygen and possibly some other elements. Which minerals in the Silicate family are listed on in the ESRTs? (10 pts.)

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