

Oxidation and Reduction

Directions: Complete each of the following statements with the appropriate term(s).

- 1) Oxidation occurs when an atom _____ electrons.
- 2) Reduction is a process that results in the _____ of electrons.
- 3) The oxidation number of an atom that has undergone oxidation will _____, while the oxidation number of an atom that has undergone reduction will _____.
- 4) Redox reactions involve the movement of _____.

Identifying Oxidation and Reduction

Directions: For problems 1-4 label each of the following half-reactions as oxidation or reduction (Remember: LEO GER or OIL RIG).

1. $O^{2-} \rightarrow O^{-} + e^{-}$ _____
2. $Al^{3+} + 3e^{-} \rightarrow Al^0$ _____
3. $I^0 + e^{-} \rightarrow I^{-}$ _____
4. $Cl^{-} \rightarrow Cl^{4+} + 4e^{-}$ _____

- Identify if problems 5-8 are redox reactions (both oxidation and reduction must occur).
- Then, identify the type of chemical reaction (i.e. decomposition, double replacement, etc.) for each of the reactions.

