

Name:

Section:

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5.6 HONORS CLASS WORKSHEET – INTRODUCTION TO OXIDATION AND REDUCTION

Explain the meaning of the following terms:

OXIDATION	Loss of electrons
REDUCTION	Gain of electrons
REDOX REACTION	Transfer of electrons

Write half-equations to show the following changes, and indicate whether they represent oxidation or reduction:

Mg losing two electrons	$\text{Mg} \rightarrow \text{Mg}^{2+} + 2\text{e}^-$	oxidation
Cl_2 turning into 2Cl^-	$\text{Cl}_2 + 2\text{e}^- \rightarrow 2\text{Cl}^-$	reduction
Sn^{4+} gaining two electrons	$\text{Sn}^{4+} + 2\text{e}^- \rightarrow \text{Sn}^{2+}$	Reduction
Fe^{2+} losing one electron	$\text{Fe}^{2+} \rightarrow \text{Fe}^{3+} + \text{e}^-$	oxidation
2I^- becoming I_2	$2\text{I}^- \rightarrow \text{I}_2 + 2\text{e}^-$	oxidation
O atoms in O_2 each gaining two electrons	$\text{O}_2 + 4\text{e}^- \rightarrow 2\text{O}^{2-}$	reduction
Ag^+ becoming Ag	$\text{Ag}^+ + \text{e}^- \rightarrow \text{Ag}$	reduction

Complete the following table to show the name and formula of some common ionic compounds:

Name	Formula
magnesium oxide	MgO
iron (II) chloride	FeCl_2
copper (I) oxide	Cu_2O
Copper (I) chloride	CuCl
iron (II) sulfate	FeSO_4
calcium chloride	CaCl_2
Iron (III) sulfate	$\text{Fe}_2(\text{SO}_4)_3$