

Use a set of Lego ion blocks to answer the following questions:

- 1) (a) What is a cation? _____
(b) List all the cations in the Lego set: _____

- 2) (a) What is an anion? _____
(b) List all the anions in the Lego set: _____


- 3) (a) What is a monatomic ion? _____
(b) List all the monatomic ions in the Lego set: _____

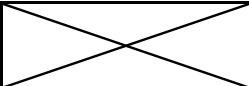
- 4) (a) What is a polyatomic ion? _____
(b) List all the polyatomic ions in the Lego set: _____

- 5) All charges in a compound must _____.
- 6) Build 5 compounds that include \mathbf{K}^+ and write their formulas: _____

- 7) Build 5 compounds that include \mathbf{O}^{2-} (that you have not already built today) and write their formulas: _____
- 8) Build 3 compounds that only contain **monatomic** ions (that you have not already built today) and write their formulas: _____
- 9) Build 3 compounds that only contain **polyatomic** ions (that you have not already built today) and write their formulas: _____
- 10) Make sure you have used each ion at least once today. If there are any ion blocks you have not used yet today, build a compound with each one and write their formulas: _____

- 11) Complete the following charts by writing the formula of the compound formed when the two ions are combined.

	I^-	Se^{2-}	SCN^-	$P_2O_7^{4-}$
NH_4^+				
Mg^{2+}				

	CO_3^{2-}	N^{3-}	C^{4-}	ClO^-
Co^{3+}				
W^{5+}				

- 12) What is the formula for the compounds made from the following ion pairs?

