Formulas Poker

Purpose:
This activity will help students understand the concepts of balancing charge and naming chemical compounds.

Materials:
Several decks of “formula” cards. I made these out of index cards. You should have enough for each group to have its own deck.

Safety:
Not an issue.

Procedure:
Divide the class into groups of three or four. Give each student a deck of cards and ask each group to establish a scorekeeper.

Each Deck should contain at least one of the following cards:

- Ba +2
- Be +2
- Cu +2
- Sr +2
- Na +1
- Mg +2
- Cu +3
- Sc +3
- Ca +2
- Ag +1
- Fe +2
- Al +3
- Li +1
- K +1
- H +1
- Hg +2
- Pb +2
- V +3
- Fe +3
- Sn +1
- Zn +2
- Ni +3
- Rb +1
- NO3 -1
- HCO3 -1
- CrO4 -1
- S -2
- NO2 -1
- PO4 -3
- Cl -1
- O -2
- SO4 -2
- HPO4 -2
- AsO4 -2
- F -1
- SO3 -2
- NH4 +1
- C2H3O2 -1
- N -3
- HSO4 -2
- OH -1
- H2PO4 -1
- Br -1
- CO3 -2
- ClO4 -1
- I -1
- P -3

One Blank or Free Card
15 of each subscript: 1, 2, 3

This game is played as a 5-card draw.

Procedure
This game is played as a 5 card draw. The dealer will pass out 5 cards to each player from the shuffled deck.
Each player may turn in as many as 3 cards but only ONCE. The players will try to make a chemical formula that uses as many of their cards as possible. If they cannot play, they must simply PASS. It is possible to make 2 chemical formulas in one play.
The score is totaled by the number of cards that the player is able to use to make the chemical formula.