***Naming Binary Compounds – Card game!***

Using these cards, you will name be able to practice naming random ionic compounds, writing ionic formulas, naming random covalent compounds, and writing molecular formulas! There are many ways to use this exciting chemistry deck—below are just SOME suggested games.

1. ***From Ions to Names***
   1. You will need: set of pink cards (nonmetal ions), set of black cards (metal ions), periodic table, answer sheet for each player, 2-3 players
   2. Rules of the game:
      * 1. Separate the black cards from the pink cards. Shuffle both sets, keeping them face down so the ion symbols and charges are not visible. Both sets should be kept where all players can reach.
        2. Each round, each player takes turns drawing one black and one pink card. Players keep their ions face down until all players have drawn.
        3. Without showing the cards to the other players, each player then writes the *name* of the ionic compound on their answer sheet for Round 1. The time limit on each round is 1 minute. When the time is up, players show their cards, and check their answers using their notes.
        4. The cards are then replaced to the pink and black decks, reshuffled, and steps 2-3 are repeated for 5 rounds.
   3. Scoring:
      * 1. Students receive 1 point per round for a correct metal name.
        2. Students receive 1 point per round for a correct nonmetal name.
           1. *NOTE: The nonmetal must ALSO have the correct ending—not just as it appears on the periodic table.*
2. ***Put the Ion in Ionic***
   1. You will need: set of pink cards (nonmetal ions), set of black cards (metal ions), periodic table/notes (to check answers), answer sheet for each player, 2-3 players
   2. Rules of the game: (this game is similar to ***From Ions to Names***—faster pace and a few rules are different)

1. Separate the black cards from the pink cards. Shuffle both sets, keeping them face down so the ion symbols and charges are not visible. Both sets should be kept where all players can reach.

2. The object now is to create as many ionic compounds as possible within the 3 minute time frame. Players draw and replace metal and nonmetal ion cards quickly—once each player has collected the information they need, they must replace the cards and exchange them. *You want to get as many compounds made as possible. Strategies may vary—****but don’t hoard cards!***

3. On their own answer sheet, each player records their ions, writes the compound name (for 2 points) and if they choose, the chemical formula (for 2 points). You’ll want to move fast!

4. Once the time is up, all writing must STOP and the cards must be replaced to the pink and black decks and reshuffled.

5. Players exchange answer sheets, and using notes/periodic table, check each other’s compounds and tally points.

* 1. Scoring:
     + 1. Players receive 2 points for a correct compound name.
       2. Players receive 2 points for a correct ionic chemical formula.
          1. *NOTE: Players can receive not points for the name or formula if the original ions were not recorded.*
       3. Any player that scores their adversaries incorrectly will have their OWN score disqualified. Play fair and grade fair ☺

1. ***Covalent Compounds***
   1. You will need: set of pink cards (nonmetals – ignore the charges), set of blue cards (number cards), periodic table/notes (to check answers), answer sheet for each player, 2-3 players
   2. Rules of the game: (this game is similar to ***From Ions to Names***)

1. Separate the blue cards from the pink cards. Shuffle both sets, keeping them face down so the symbols and numbers are not visible. Both sets should be kept where all players can reach.

2. Each round, each player takes turns drawing two blue and two pink cards. Players keep their cards face down until all players have drawn.

3. On their own answer sheet, each player writes the covalent compound name (for 2 points) and the chemical formula (for 1 point). Players can decide which blue card is matched to which nonmetal. The time limit on each round is 1 minute. When the time is up, players show their cards, and check their answers using their notes.

4. The cards are then replaced to the pink and blue decks, reshuffled, and steps 2-3 are repeated for 5 rounds.

c. Scoring:

Players receive 2 points for a completely correct compound name.  
Players receive 1 point for a correct covalent chemical formula.