Dougherty Valley HS Chemistry Periodic Table Puzzle

| W | /or | ks | he | et | #6 |
|---|-----|----|----|----|----|
|---|-----|----|----|----|----|

Name: Period: Seat#:

On the blank chart below, you are to fill in the letters of the imaginary elements A – NN according to the clues below. Not all elements will have a clue. Use your knowledge of the periodic table and its organization to fill in the "elements." Your "Periodic Table" represents periods 2-6 of the s and p blocks of the real periodic table. The "elements" below follow the same patterns that the actual elements on the periodic table follow.

| | "s" bl | ock | | 4 | p" block | |
|-------------|--------|-----|--|---|----------|--|
| Period 2 | | | | | | |
| Period 3 | | | | | | |
| Period 4 | | | | | | |
| Period 5 | | | | | | |
| Period 6 | | | | | | |

Clues:

1. The "elements" are grouped in the following Families:

A B C D E P Q R S T U V W X Y K L M N O Z AA BB CC DD

EE FF GG HH II JJ KK LL MM NN

- 2. **Y** is the most electronegative element.
- 3. **GG** is the most reactive metal and the least electronegative element.
- 4. If **K** lost 4 electrons, it would look like **E**, the smallest Noble Gas.
- 5. If I gained 2 electrons, it would look like **A**, and if it had 2 less protons, it would be **K**.
- 6. **BB** is the biggest element in its family.
- 7. AA is smaller than K but bigger than I.
- 8. **CC** is the only element in its group that is diatomic.
- If NN lost 1 electron, its electrons would fill ONLY the s sublevel.
- 10. JJ Is the second biggest element in its family.
- 11. **S** is in the same period as **JJ**.
- 12. **Z** and **L** are not in the same period.
- 13. **B** is the largest noble gas.
- 14. If **II** were a real element, it would only have 3 electrons.

- 15. **FF** is in the same period with **U** but not **O**.
- 16. H is to JJ as I is to KK.
- 17. **U** has a larger ionization energy than **I**.
- 18. **M**'s valence electrons are in the 4th energy level.
- 19. The shielding effect for **EE** is greater than for **HH**.
- 20. **F** is the smallest element in the group that would form charges of -2.
- 21. **G** gains 2 electrons to look like **B**.
- 22. **P**'s atomic number is 1 more than **GG**.
- 23. **T** is not in the same period with **Z**.
- 24. **L** is not in the same period as **GG**, but is in the same period with C.
- 25. When **W** gains 1 electron, it's a $4p^6$.
- 26. R has 1 less energy level than M.
- 27. The valence electrons for **X** and **LL** are not in the same energy level.
- 28. MM and Z are in the same perio