## Science \& Technology 404

## Puzzle

The elements in this periodic table have been replaced by letters of the alphabet. Use the clues below to fill in the table.



## Clues

1. Elements in the same column belong to the same chemical group or family: ABCD, EFG, IJK, LMN, OPQ, RST, UVW, XYZ.
2. Element H could belong to Group IA or Group VIIA.
3. B has 10 electrons.
4. $X$ needs 3 electrons to have the same electron configuration as $B$.
5. $\quad R$ has 4 valence electrons.
6. $U$ has the lightest atomic mass in its group.
7. $Y$ is located in the $3^{\text {rd }}$ period.
8. A has its electrons arranged in a single electron shell.
9. N is in the group that is most likely to give up an electron.
10. E can lose 3 electrons to achieve the electron configuration of $A$.
11. $Q$ is the lightest element in the halogen group.
12. $V$ can be represented as 2) 8) 2).
13. Thas the lowest density in its group.
14. I contains fewer electrons than $K$.
15. $Q$ is much more like $O$ than it is like $P$.
16. C has four energy levels.
17. $S$ has one more proton than $F$.
18. $L, K, G$ and $V$ all have the same number of electron shells.

| $H$ |  |
| :---: | :---: |
| $N$ | $U$ |
| $L$ | $V$ |
| $N$ | $W$ |


|  |  |  |  |  |  |  | $A$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $E$ | $T$ | $X$ | $I$ | $Q$ | $B$ |  |  |
| $G$ | $R$ | $Y$ | $K$ | $O$ | $D$ |  |  |
| $F$ | $S$ | $Z$ | $J$ | $P$ | $C$ |  |  |

