

SCH3U1 The Periodic Law Puzzle

Your task is to arrange the elements into the periodic table given below. The 26 elements are NOT identified by their correct symbols, but by the letters of the alphabet. Each element is identified by only one letter.

The elements form the following groups. Note that the following elements and groups are not arranged in any specific order.

ZRD SIFP JXBE LHT QKA WOV YMC GUN

Clues

Example: U has a total of 6 electrons

This tells you that U belongs in Group IV and that the elements GUN also belong in Group IV.

- A has a total of 6 valence electrons.
- E is a noble gas.
- S's electron dot symbol is $\overset{\cdot}{\underset{\cdot}{\text{S}}}$
- O's electron dot symbol is $\overset{\cdot\cdot}{\underset{\cdot\cdot}{\text{O}}}$
- O has an atomic number larger than V but smaller than W.
- The charge on the L ion is 2+.
- C has five electrons in its outer energy level and a total of 3 energy levels.
- The atomic mass of T is more than that of H but less than that of L.
- M has an atomic number one less than that of A.
- The electrons of an N atom are distributed in 3 energy levels.
- R has the largest atomic mass of its group.
- F is a gas at room temperature.
- Atom B contains ten protons.
- Q has an atomic mass less than that of K.
- Y is more stable than either M or C.
- X has an atomic number one higher than F.
- D has the smallest atomic mass in its group.
- P's valence electrons are in the second energy level.
- J has the greatest density of the elements in its group.
- Atoms of I are larger than those of S.

I	II	III	IV	V	VI	VII	VIII
			U				
			GUN				