



A Mendeleevian Mystery

The atomic symbols of the first 25 elements on an imaginary periodic table have been assigned the letters A to Z (I omitted). The symbols have no relation to the actual periodic table and are not in any particular order.

These symbols are presented in groups below. Your job is to arrange the symbols on the imaginary periodic table in their correct positions given a list of clues. Hints: cross off clues as you use them, skip clues that don't help at first, come back to clues after you complete the first run down the list. Once you have filled in the table, assign atomic numbers to each element in the atomic number grid.

Here are the elements in their groups (not in any particular order):

ZDR, PSJF, XBE, LHT, QKA, WOV, YMC, GUN

Here are the clues:

U has a total of six electrons.

E is a noble gas.

S is an alkali metal.

D has the smallest atomic mass in its group.

O has an atomic number larger than V but smaller than W.

C has five electrons in its outer energy level.

L is an alkaline earth metal.

O is a halogen.

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 atomic radius of Q is larger than that of A.

The electrons of atom N are distributed over three energy levels.

Atoms of J are larger than those of S.

R has the largest atomic mass of its group.

F is a gas.

Atom B contains 10 protons.

Q has an atomic mass less than that of K.

Y is more metallic than either M or C.

X has an atomic number one higher than F.

P is the most active element in its group.

Element Code	Atomic Number
A	
B	
C	
D	
E	
F	
G	
H	
J	
K	
L	
M	
N	
O	
P	
Q	
R	
S	
T	
U	
V	
W	
X	
Y	
Z	

Imaginary Periodic Table								
Group								
Period	1	2	3	4	5	6	7	8
1								
2								
3								
4								