Biology: ATOMIC ANIMALS IN THE ATOMIC ZOO

One way to get familiar with the names of the chemical elements is to use their names and symbols over and over again. It is even easier if you can make a game out of it.

In this exercise, you will see how many names of animals you can make using the atomic alphabet. The atomic alphabet is made up of the symbols of the elements on the Periodic Table. You cannot separate the symbols, you have to use them as they occur. Therefore, there is no letter E or L but those letters are available in conjunction with other letters such as Fe for Iron or Li for Lithium.

You will use this atomic alphabet to form the names of the animals you will put into your Atomic Zoo.

Here is an example: Lion is made of the elements Li for Lithium O for Oxygen, and N for Nitrogen.

Now the Lion must have a cage with a number. To determine the cage number add up all of the atomic numbers for each of the symbols used. In this case it would be 3, 8, and 7. These numbers add up to 18, that is the cage number.

Lastly, you have to take care of the animal. One very important factor in determining the animal's health is the animal's weight. To determine how much your animal weighs add up all of the atomic weights (rounded) from the symbols you used. In this case, for the lion, it would be 7, 16, and 14. This gives the Lion a weight of 37 Kilograms. I guess it must be just a lion cub!

Now design a table like the one below on which to list your animals, their cage numbers, and their weights. Extra points will be awarded for:

1) Zoo director with the largest zoo.
2) Zoo researcher with the longest name of an animal.
3) Zookeeper who cares for the heaviest animal.
4) Zookeeper who cares for the lightest animal.

If you would like to try for any of these extra points, list them at the top of your chart and circle the animal that is the heaviest, lightest, etc. I will not look through your chart to determine this.

ANIMAL	ELEMENTS USED	CAGE NUMBER	ANIMAL'S WEIGHT
Li O N	Lithium, Oxygen, Nitrogen	18	37 Kg
Be Ar	Beryllium, Argon	22	49 Kg

A FEW SIMPLE DIRECTIONS:

1. Use the chemical symbols AS THEY APPEAR on the Periodic Table. DO NOT Break the letters apart.
2. PRINT the name as illustrated in the chart above spelling the name but keeping the symbols together.
3. Round off the atomic weight to the nearest whole number.
4. You can use the symbols over again - even in the same animal.
5. No abbreviations, use only full names (NO: "Rhino" or "Hippo").
6. You may use general names like "fish" or specific names like "trout" or "salmon".
7. You may use scientific or common names. If you use scientific names, make sure you write the common name in parentheses next to the scientific name.
8. You may use any animal. NO plants, fungi, protists, or Monerans.
9. If you can spell the same animal more than once using a different combination of symbols, you may count each one.
10. If you use the singular name, you **cannot** use the pleural, and vice versa.

GOOD LUCK!