

Exploring Atoms

Name _____

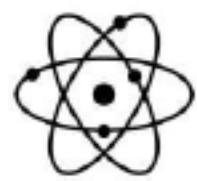
Watch the "Atoms" movie at <http://www.brainpop.com/> to complete this section.

- List three items that are made of atoms. _____
- The _____ of _____ shows and predicts every element in the universe.
- _____ argued that everything in the world was made up of particles so small they could not be cut in half. He called these particles _____ from the Greek word "atomos", which means _____.
- John _____ said that atoms were the smallest part of an element that retains its chemical properties.
- Atoms are made up of three subatomic particles called _____, _____, and _____.
- The atom's center or _____ is a cluster of protons and neutrons. Protons have a _____ electrical charge and neutrons have _____ electrical charge. They are held together by a _____ force, which keeps positively charged protons from _____ each other.
- The nucleus is surrounded by a cloud of electrons moving near the speed of _____. The electrons have a negative charge that _____ them to the protons and they live in _____ representing different energy levels.
- On the periodic table, atoms are arranged by _____, which is really the number of protons or electrons. You can find the _____ and the element's _____ on the periodic table.
- Different types of atoms can bond together to make _____. Water is created by _____ atoms of hydrogen and _____ atom of oxygen.
- If the nucleus of an atom was the size of an apple, the electrons would be _____ football fields away.

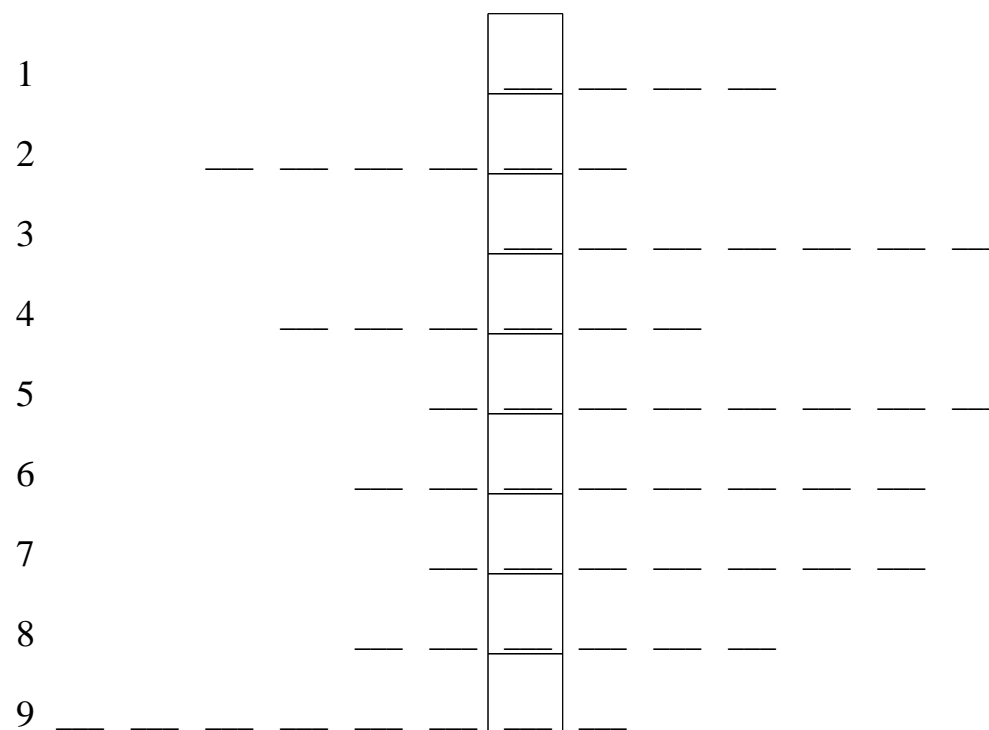
Word Bank for #2-10
Atomic Mass
Atomic Number
Atoms
Attracts
Dalton
Democritus
Electrons
Elements
Five
Indivisible
Light
Molecules
Neutrons
No
Nucleus
One
Periodic Table
Positive
Protons
Repelling
Shells
Strong
Symbol
Two

Try the quiz to complete each statement.

- The _____ is the smallest unit or part of an element.
- Scientists have discovered or created over _____ elements.
- A _____ is two or more atoms bonded together.
- What is the most abundant atom in the universe? _____



Use the information from the movie to complete the puzzle and discover the last name of the mystery person.



1. The atomic ? equals the number of protons and neutrons in the nucleus of an atom.
2. The atomic ? equals the number of protons or electrons in an atom.
3. The ? is the center of an atom and contains protons and neutrons.
4. Two or more atoms ? together form a molecule.
5. An electron has a ? charge.
6. A ? of water consists of two atoms of hydrogen and one atom of oxygen.
7. A ? is found in the nucleus and has no electrical charge.
8. Electrons can be found in energy levels, or ?, that surround the nucleus of an atom.
9. A proton has a ? charge and is found in the nucleus of an atom.

Extra Credit:

The name of the mystery person is _____.

Why is he important in the field of chemistry?

Done? Try the games listed on the Chemistry page of the Kid Zone at <http://sciencespot.net/>.