**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Section \_\_\_\_\_**

**Atomic Structure WebQuest**

**Introduction** Atoms are the basis of chemistry. They are the basis for everything in the Universe. You should start by remembering that matter is composed of atoms. If you want to do a little more thinking, start with particles of matter. Matter, the stuff around us, is used to create atoms. Atoms are used to create the elements. Elements are used to create molecules. It just goes on. Everything you see is built by using something else.

Watch the videos on the following links: <http://www.mcwdn.org/chemist/atomsvideos.html> clink the video titled “Atom Song” and “Show me science – atoms and elements.

<http://studyjams.scholastic.com/studyjams/jams/science/matter/atoms.htm> then click the “test yourself” button. Record your score here:\_\_\_\_\_\_\_\_\_\_\_

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| --- |
| **The Task** You are to use the suggested websites to gather information and answer the questions or statements on the sheet. **Basic Atomic Structure**: go to [http://www.chem4kids.com/files/atom\_structure.html](http://www.chem4kids.com/files/atom_structure.html%20)1. Describe how atoms are like building blocks
2. What are the three basic parts of an atom? Draw a basic picture of an atom.
3. What particles are located in the nucleus? What is the charge for each particle?
4. Where are electrons located? What is the charge for this particle?
5. If the charge on the atom is 0, what does this mean?
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**Subatomic Particles**: go to for the following websites:<http://chemwiki.ucdavis.edu/Physical_Chemistry/Atomic_Theory/The_Atom/Sub-Atomic_Particles>

<https://www.nde-ed.org/EducationResources/HighSchool/Radiography/subatomicparticles.htm>

**Nucleus**: Facts:

**Protons**:

1. Charge:

2. Facts:

**Neutron**:

1. Charge

2. Facts:

**Electrons**:

1. Charge:

2. Facts:

**Atom Basics**: Go to: <http://www.chemtutor.com/struct.htm> and read the “And you thought you were strange” section to answer the following questions (put answers in the table).

1. What are the three subatomic particles that all atoms are made of?

2. Where are each of the three particles located within the atom?

3. What is the electrical charge of each particle?

|  |  |  |
| --- | --- | --- |
| 1. The 3 subatomic particles | 2. Location within the Atom | 3. Electrical Charge |
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Log on to the following website to complete the Web Quest.

<http://www.qacps.k12.md.us/qhs/teachers/WeedonD/Atoms%20page%202.htm>

1. The basic unit of all matter is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. All atoms are made of three types of particles \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Click on Protons**

1. The \_\_\_\_\_\_\_\_\_\_\_is used to identify an atom.
2. Protons are found in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of atoms. They have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_charge.
3. The number of protons is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. What happens when the number of protons in an atom changes?
5. How big are protons compared to electrons?

**Click on learn about neutrons**

1. Neutrons are found in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of an atom?
2. How can you calculate the number of neutrons in an atom?

**Click on Learn about electrons**

1. What is the charge on an electron?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How can you calculate the number of electrons in an atom?
3. Where are electrons found in an atom?