

Atoms and particles

Worksheet 3

Webquest

Atomic Theories and Models

Adapted from:

<http://www.lcps.org/cms/lib4/VA01000195/Centricity/Domain/12702/Webquest%20%20Scientists%20Atom%20Answers.pdf>

Atom Basics: Go to: <http://www.chemtutor.com/struct.html> 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?

The 3 subatomic particles	Location within the Atom	Electrical Charge

John Dalton's Atomic Theory:

Go to <http://www.iun.edu/~cpanhd/C101webnotes/composition/dalton.html> and use the information there to answer the following questions:

4. When did Dalton form his Atomic Theory?
5. What are the four components of Dalton's Atomic Theory?

J.J. Thomson and the Electron:

Go to <http://www.chemheritage.org/classroom/chemach/atomic/thomson.html> and use the information there to answer the following questions:

6. What is the year in which J.J. Thomson discovered the electron?
7. What was the evidence for "bodies much smaller than atoms"?
8. What was the model of the atom he proposed in 1904?

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Chadwick (and Rutherford) and the Neutron:

Go to <http://www.pbs.org/wgbh/aso/databank/entries/dp32ne.html> and use the information found there to answer the following questions:

9. What makes up the atomic number?
10. What makes up the atomic mass?
11. What observation led Chadwick (and Rutherford) to conclude there must be something besides just the proton in the nucleus of atoms?
12. What is the something-besides-just-the proton called?