

2009-2010 Chemistry, Chapters 4 & 5: Atomic Theory

Essential Questions: What are we made of?

- How are scientific models developed?
- Do atoms exist or are they just concepts invented by scientists? What evidence is there in your everyday life for the existence of atoms?
- How did the understanding of the atom affect historical events?
- How have historical events affected the model of the atom?
- What do we think the atom “looks like” now?
- If the atom is mostly empty space, why doesn't my butt fall through the chair?
- How are light and electrons related?
- How do we “see” where electrons are located in the atom?
- Why is the location of electrons so important?

| Week of: | 50 minutes | 90 minutes | 90 minutes |
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| 10/26/09 | <p>Mon. Oct. 26</p> <p>Quiz 7 - % composition, empirical formula, molecular formula, mass percent and molarity</p> <p>HW: download and print Atomic Theory notes (> 20 pages); RQ 4.1 (from website)</p> | <p>Tues./Wed. Oct. 27/28</p> <p>Preparation for test – review old quizzes, see new review sheet (30 min.)</p> <p>Begin Atomic Theory –</p> <p>Ancient history</p> <p>Inventions (45 min.)</p> <p>Atomic Theory Video #1 (1st one - Mists of Prehistory)</p> <p>HW: prepare for Test on Measurement and Moles</p> | <p>Thurs./Fri. Oct. 29/30</p> <p>Test on Measurement and Moles</p> <p>HW: Enjoy your weekend!</p> |
| 11/2/09 | <p>Mon. Nov. 2</p> <p>Introduce 5 models of the atom</p> <p>Atomic theory notes – Lavoisier, Proust and Dalton</p> <p>HW: prepare for Lab 5 – Atomic Target Practice (Title, Purpose, Pre-lab questions, materials, flowchart),</p> | <p>Tues./Wed. Nov. 3/4</p> <p>Warmup about Dalton's theory of the atom and the Three Laws</p> <p>J.J. Thomson, with cathode ray tube demo, then Rutherford, which segued into Lab 5 – Atomic Target Practice</p> <p>Lab 5 - Atomic Target Practice</p> <p>HW: Dalton and Thomson: p. 112, #32,33,35-42, postlab; RQ 4.2</p> | <p>Thurs./Fri. Nov. 5/6</p> <p>Brief notes about Chadwick</p> <p>Debrief Lab 5 – Atomic Target Practice</p> <p>Worksheet about Rutherford's gold foil experiment (while stamping HW and postlab)</p> <p>Atomic theory videos #1 (last 2) (review of Thomson's and Rutherford's expts and theories)</p> <p>Return Measurement and Moles test, introduce “HW-optional”</p> <p>HW: Read 5.1, do p. 146, #30-32, 34, 38</p> |