

Unit 3: Structure of the Atom

Reading Assignments

Modern Chemistry (2006), Chpt. 3

Supplementary Reading

“Teeth Tell Tale of Warm-Blooded Dinosaurs”, *Science News* v158 #11

“Where the Gems Are: Technique Adds New Facet To Emeralds’ Origins”, *Science News* v157 #11

Homework/Activities

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| 9 Sect. Review (Chpt. 3, Sect. 2) (p.76) #3, 5 | Due: _____ |
| 9 Mini-quiz: Subatomic particle worksheet | Due: _____ |
| 9 Isotope worksheet | Due: _____ |
| 9 Sect. Review (Chpt. 3, Sect. 3) (p.87) #2, 3 | Due: _____ |
| 9 Chapter Review (Chpt. 3) #5-12, 19, 25, 27 | Due: _____ |
| 9 Articles: Dinosaurs and Gemstones | Due: _____ |
| 9 TBA: _____ | Due: _____ |

Concepts/Topics

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| 9 Historical views on the atom: Democritus, Aristotle, Dalton | [p.67-69] |
| 9 The electron - CRTs, Thomson, oil droplets, Millikan | [p.72-73] |
| 9 The nucleus, protons - gold foil, Rutherford | [p.74-76] |
| 9 The neutron - Chadwick | |
| 9 Atomic #, mass #, calculating the numbers of subatomic particles | [p.77-82] |
| 9 Changing the number of subatomic particles: ions, different elements, isotopes | |
| 9 Isotopes: two notations | [p.79] |
| 9 Isotopes: calculating weighted average mass | [p.81-82] |

Web Resources

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| How do I find the number of protons, electrons, ...? | education.jlab.org/qa/pen_number.html |
| Protons, Neutrons, and Electrons (quiz yourself!) | science.widener.edu/svb/tutorial/protonscsn7.html |
| Isotope - Wikipedia | en.wikipedia.org/wiki/Isotope |
| Early Views of the Atom | www.visionlearning.com/library/module_viewer.php?mid=50 |
| Atomic Structure | web.jjay.cuny.edu/~acarpi/NSC/3-atoms.htm |