The Common Core English Language Arts Standards (CCELA)

CHAPTER 4, LESSON 1: PROTONS, NEUTRONS, AND ELECTRONS

Reading Standards for Literacy in Science and Technical Subjects 6-8

LITERACY.RST.6-8.3
Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

LITERACY.RST.6-8.4
Determine the meaning of symbols, key terms and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.

LITERACY.RST.6-8.7
Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

Students use the Activity Sheet to read and follow a multistep procedure to discover that static electricity is about the protons and electrons of atoms. Students read the questions and information on the Activity Sheet and apply them to their observations to learn the meaning of words related to proton, electron, and attraction at the molecular level. Students also integrate information from text with molecular models to improve their understanding.

Writing Standards for Literacy in Science and Technical Subjects 6-8

LITERACY.WHST.6-8.1
Write arguments focused on discipline-specific content.

a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim (s) from alternate or opposing claims, and organize the reasons and evidence logically.

b. Support claim(s) with logical reasoning and relevant accurate data and evidence that demonstrate an understanding of the topic or text using credible sources.

c. Use words, phrases, and clauses to create cohesion and clarify the relationship among claim(s), counterclaims, reasons, and evidence.

d. Establish and maintain a formal style.

e. Provide a concluding statement or section that follows from and supports the argument presented.

Students use the Activity Sheet to write answers to questions about the way Lewis Dot structures relate to energy level models. Students learn to use different short-hand methods of representing covalent and ionic bonding using Lewis Dot diagrams. Students also describe how different molecular model illustrations can be used to represent the same molecule.

