

The Common Core English Language Arts Standards (CCELA)

CHAPTER 4, LESSON 3: THE PERIODIC TABLE AND ENERGY LEVEL MODELS

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

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).

Using the Activity Sheet and a set of element cards showing electron energy levels, students use the information on the card and a periodic table to determine which element the card describes. By reading the questions and information on the Activity Sheet and reading and interpreting the element cards, students learn the meaning of words related to energy levels, electrons, atomic number, and the periodic table. 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.

Using the Activity Sheet, element cards showing energy levels, and a periodic table of the first 20 elements, students identify the atom the card is describing. Students can write down their reasoning for their answers although they are not required to in this activity.