



The Atoms Family by Kyle Jarvis

Grade Level: Grade 8

Subject Area: English Language Arts

Lesson Length: 1 hour

Lesson Keywords: middle school, science, 8th, atoms, matter

Lesson Description: In this lesson students will understand that all matter is made of atoms. Atoms consist of protons, neutrons, and electrons; the nucleus consists of protons and neutrons, with electrons orbiting in shells. Protons have a positive charge, electrons have a negative charge, and neutrons have no charge. Changing the numbers of protons, electrons, or neutrons changes an atom and can create different elements. Elements each have different properties that are useful to people in different ways.

Common Core Standards Covered with This Lesson

CCSS.ELA-Literacy.RL.8.1: Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.

CCSS.ELA-Literacy.RL.8.4: Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.

CCSS.ELA-Literacy.W.8.1: Write arguments to support claims with clear reasons and relevant evidence

CCSS.ELA-Literacy.W.8.1a: Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.

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Lesson Content: Book/Story/Reading Passage

Instructions: Please read the following reading passage as many times as needed (aloud and silent) before starting to go through other lesson pages. Understanding the content of this passage is very important since the lesson activities will be all about this content. Feel free to print the passage if needed.

The Atoms Family

by Kathleen Crawford

Content: In the center of Matterville, there is a place called the Nucleus Arcade, where two members of the Atoms Family like to hang out. Perky Patty Proton, like her sisters, is quite large with a huge smile and eyes that sparkle (+). Patty is always happy and has a very positive personality. Nerdy Nelda Neutron is large like Patty, but she has a boring, flat mouth and eyes with zero expression (o). Her family is very apathetic and neutral about everything. Patty, Nelda, and their sisters spend all their time at the arcade.

Around the Nucleus Arcade, you will find a series of roadways that are used by another member of the Atoms Family, Enraged Elliott Electron. Elliott races madly around the Arcade on his bright red chrome plated Harley-Davidson. He rides so fast that no one can be sure where he is at any time. Elliott is much smaller than Patty and Nelda and he is always angry because these bigger relatives will not let him in the Arcade. He has a frown on his face, eyes that are squinted with anger, and a very negative (-) attitude.

The first energy street can only hold only two Electron brothers. The second energy street, called the Energy Freeway, can hold 8 brothers. The third energy street, called the Energy Superhighway, can hold 18 of the brothers. The morale of Matterville is stable as long as each negative Electron brother is balanced out by one positive Proton sister. The number of residents in Matterville depends on the Proton and Neutron families.

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Task 1: Vocabulary

Instructions: Please complete the following vocabulary activity by choosing the correct meaning of each word selected from the passage and use of each word correctly in a sentence.

Q: 1 WordPhrase: Apathetic **WordPhraseTier:** 2

Question: In the sentence, "Her family is very apathetic and neutral about everything." what does "apathetic" mean?

- A: caring
- B: uninterested
- C: responsive
- D: concerned

Question: Which one of the sentences below uses the word "apathetic" correctly?

- A: Because Jane was apathetic about completing her school work, she did not graduate on time.
- B: Although James was apathetic about football, he loved playing in the game.
- C: Mary's so-called lover was simply apathetic about the love he caused her.
- D: Beth cared for her grandmother, she was very apathetic at her funeral.

Q: 2 WordPhrase: Morale **WordPhraseTier:** 2

Question: "The morale of Matterville is stable as long as each negative Electron brother is balanced out by one positive Proton sister." What does "morale" mean?

- A: weakness
- B: sad
- C: fear
- D: confidence

Question: Which one of the sentence below uses the word "morale" correctly?

- A: Sue and May questioned their morale.
- B: Terry had great morale about his test.
- C: Morale was low, and many had lost faith in Gabriel.
- D: The doctor gave her patient better morale about surgery.

Q: 3 WordPhrase: Proton **WordPhraseTier:** 3

Question: Perky Patty Proton, like her sisters, is quite large with a huge smile and eyes that sparkle. How does the description of Patty "Proton" describe her personality?

- A: positive
- B: negative
- C: neutral
- D: indifferent

Question: Where is the location of the "proton"?

- A: No where
- B: outside
- C: nucleus
- D: orbitals

Q: 4 WordPhrase: electron **WordPhraseTier:** 3

Question: Enraged Elliott "Electron". Elliott races madly around the Arcade on his bright red chrome plated Harley-Davidson. From the sentence what type of personality does Elliott have?

- A: good
- B: bad
- C: indifferent
- D: funny

Question: What type of charge does an "electron" have?

- A: neutral
- B: positive
- C: no charge
- D: negative

Task 2: Forum Discussion

Instructions: This discussion forum will have questions for students to respond. Read the posted questions, and respond to each. Students are responsible for posting one initial and two peer responses for each topic.

1 - Why does Patty Proton and Nelda Neutron spend all their time in the Nucleus Arcade?

In the story, In the center of Matterville, there is a place called the Nucleus Arcade, where two members of the Atoms Family like to hang out, and Patty, Nelda, and their sisters spend all their time at the arcade. Why are they always there?

2 - Why don't Elliott spend time with his sister in the Nucleus Arcade?

In the sentence, Elliott is much smaller than Patty and Nelda and he is always angry because these bigger relatives will not let him in the Arcade. He has a frown on his face, eyes that are squinted with anger, and a very negative (-) attitude, Why won't Elliott's sisters let him into the arcade??

3 - How many brother are outside of the arcade?

After reading the paragraph, The first energy street can only hold only two Electron brothers. The second energy street, called the Energy Freeway, can hold 8 brothers. The third energy street, called the Energy Superhighway, can hold 18 of the brothers. How many brother are outside of the arcade?

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Task 3: Writing Activity

Instructions: After reading the morale of Matterville what is important about the relationship between?Patty, Nelda, and Elliott??What would happen to the morale of Matterville if one Elliott Electron was kidnapped? Your are to write 2-3 paragrahs explaining your answer and use details from class and the story.

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