

Drumthwacket

## Unit 1: Lesson 2

# History of Invention and Discovery in New Jersey

### Objectives

Students will be able to read articles on various New Jersey inventors and inventions. Students will be able to answer questions about the texts and be able to explain how the inventions and innovation have impacted people, society, and/or the economy in New Jersey.

### Description

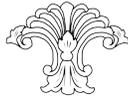
In this lesson students will read several articles to gain knowledge needed to answer questions about inventors and inventions. They will be able to identify several inventions that originated in New Jersey. This lesson is the prerequisite to Lesson 3, in which the students will research a New Jersey Inventor and do oral presentations.

### Targeted Standards in Lesson 2

#### Common Core State Standards Grade 4 English Language Arts

- CCSS.ELA-Literacy.RL.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-Literacy.RL.4.7 Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.
- CCSS.ELA-Literacy.RI.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-Literacy.RI.4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
- CCSS.ELA-Literacy.RI.4.9 Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.
- CCSS.ELA-Literacy.W.4.1b Provide reasons that are supported by facts and details.
- CCSS.ELA-Literacy.W.4.2b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- CCSS.ELA-Literacy.SL.4.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.





## Drumthwacket

- CCSS.ELA-Literacy.SL.4.1c Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.

### New Jersey Core Content Standards-Social Studies

- 6.1.4.C.12 - Evaluate the impact of ideas, inventions and other contributions of prominent figures who lived in New Jersey.
- 6.1.4.C.16 - Explain how creativity and innovation resulted in scientific achievement and inventions in many cultures during different historical periods.

### New Jersey Core Content Standards-Science

- **5.1 Science Practices:** All students will understand that science is both a body of knowledge and an evidence-based, model-building enterprise that continually extends, refines, and revises knowledge.
- **C. Reflect on Scientific Knowledge:** Scientific knowledge builds on itself over time.

## Resources

### Texts:

- [New Jersey Inventors Hall of Fame](http://www.njinvent.org/publications.html) (<http://www.njinvent.org/publications.html>)
- [Motherlode of Invention](http://njmonthly.com/articles/lifestyle/motherlode-of-invention.html) (<http://njmonthly.com/articles/lifestyle/motherlode-of-invention.html>)

### Extension Activity:

- [Information about Inventors and Critical Thinking Activities: Center for Invention](http://www.inventionatplay.org) (<http://www.inventionatplay.org>)

### Supplemental Reading:

- [A History of Inventing in the Garden State: from Thomas Edison to the Ice Cream Cone](#) by Linda J. Barth (available from Amazon \$16.70)

### Assessments:

- Oral/written responses
- Exit slips

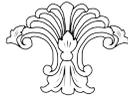
## Pacing Guidelines:

Lesson 2 can take 45 minutes to complete.

## Introducing the Lesson:

In this lesson students will research and study the history of invention and discovery in the state of New Jersey.





## Drumthwacket

### Day 1

- Step 1:** Introduce the lesson by showing students the NJ Inventors Hall of Fame website. This will spark a discussion about the history of invention and discovery in NJ. A suggestion would be to scroll through the “Hall of Fame Awards” pages prior to the lesson and pick certain inventors/inventions to discuss with the students. Several of the inventions will be difficult for some 4th graders to completely understand, but the point is to make students aware of how many New Jerseyans contributed to inventions in our society.
- Step 2:** Tell the students that as a class we will begin reading about different New Jersey inventors and inventions.
- Step 3:** Begin reading “Motherlode of Invention” with the class. Suggestions may be to project the article on the SMARTBoard or make copies for students. As you read together, highlight important information and discuss how the inventions made life easier. Some possible questions are: “How have these inventions impacted our lives?” “What would our lives be like without these inventions?” “What impact have these inventions had on our economy?” “What impact have these inventions had on people and society?” Have students turn and talk to their group members to discuss these questions and then share some responses as a whole class.
- Step 4:** Explain that in the next lesson, students will begin to research other New Jersey inventors and inventions, and eventually give oral presentations using one or more of the following methods: Posters, Power Point Presentations, Smart Notebook Software, or a newspaper.
- Step 5:** To close the lesson, have students complete an Exit Slip showing what they learned from the lesson.

**Exit Slip:**

1. How would your life be different without these and other inventions?
2. How are all of these inventors alike? Different?

### Optional

Write a review question about today’s lesson that you’d like to ask your classmates. (If you choose this activity, be sure to ask the students some of their classmates’ questions throughout the unit.)

