

Grade 7 -- Informational

A Man with a Dream

In 1811, a young man named Samuel Morse arrived in London, England, to study art. He wrote to his mother in Charlestown, Massachusetts, to tell her of his safe arrival. Morse was troubled because it would take four long weeks for the letter to reach her. Could this have been when he first began to dream of a way to send words flying across land and sea?

When he was very young, Morse had entered Yale University. He became interested in lectures and experiments having to do with electricity. However, he also showed great talent for art. He earned money for college by selling his small paintings for five dollars each. Then he went to England to study art, returning from England to the United States in 1815. He continued to paint for several more years but made barely enough money to live.

A friend was giving lectures on electricity at Columbia College in New York. Morse attended the lectures. His interest in electricity returned. Another time, he heard some scientists discussing new discoveries in electricity. One said that electricity could travel directly along a length of wire several miles long. Someone asked if the flow of electricity was slowed down by the length of wire. The scientist answered no. Samuel Morse's mind was filled with ideas. What if he could build a device to send a message instantly along a wire of any length? What if the wire reached across the United States? What if it went around Earth?

In 1835, Morse became professor of art at New York University. He also began work on a communication device. He developed a code—a combination of dots (short tones) and dashes (long tones)—for each letter of the alphabet. The codes would be sent from a transmitter through a length of wire to a receiver. A magnet on the receiver would move a marker on a strip of paper, writing out the coded message. An example of the now world-famous Morse code is the signal for distress: dot dot dot (S) dash dash dash (O) dot dot dot (S).

By 1837, Morse was ready to send his first message. He ran a 1,700-foot length of copper wire, almost the length of six football fields, around his workroom. Tapping a switch-like device called a key, he sent a message from the transmitter to the receiver. The experiment was a success. Morse named his device a “telegraph,” after the Greek word meaning “to write far.” He demonstrated the telegraph in 1838, at the Franklin Institute in Philadelphia. In 1844, Morse and some partners began construction of a forty-mile line of wire between Baltimore and Washington, D.C. In May 1844, it was time for the ultimate test. Morse set up the telegraph at the Supreme Court Building in Washington. He keyed a message over the forty-mile line to an associate in Baltimore. The associate received the message instantly and returned it instantly.

By 1851, there were fifty telegraph companies operating in the United States. Thirteen telegraph companies joined together in 1856 and become known as Western Union. In 1861, Western Union built the first transcontinental telegraph line. Since Morse's death in 1872, great improvements in communication technology have been made based on his invention.

Today a variation of the Morse code makes it possible for individuals with physical challenges to communicate. This computer-accessible, alternative communication method, called “Morse 2000,” can be used by those who are paralyzed or cannot speak. Like the original Morse code, Morse 2000 is a series of signals. A person can blink an eye, push or pull, puff, or make other movements to work the program. Special software causes the computer to respond as if the person were typing on a keyboard. The computer converts the Morse movements into text and graphics. Dr. Thomas W. King, director of the Morse 2000 Outreach program at the University of Wisconsin, reports that the program is easier to learn than sign language. Dr. King believes that Morse 2000 may become the “manual language for the next millennium.”

It all began with one man's determination and hard work. Years of living on very little money and without support did not discourage Samuel Morse. He worked until he made his dream come true.

- 1) What does the prefix **trans** mean in the words **transmitter** and **transcontinental**? (LA7.1.5.a)
 - a) above
 - b) across
 - c) after
 - d) around

- 2) What is an instrument used to send codes through a length of wire called? (LA7.1.5.a)
 - a) decoder
 - b) receiver
 - c) telegraph
 - d) transmitter

- 3) What context clue is used for the word transmitter in paragraph four? (LA7.1.5.c)
 - a) a combination of dots and dashes
 - b) a magnet on the receiver would move a marker
 - c) an example of the Morse code is the signal for distress
 - d) a code could be sent through a length of wire to a receiver

- 4) What is the main idea of the passage? (LA7.1.6.d)
 - a) Samuel Morse's childhood
 - b) Samuel Morse's journey to London to become an artist
 - c) Samuel Morse's fondness towards the applications of electricity
 - d) Samuel Morse's perseverance in improving long-distance communication

- 5) What is the main idea of paragraph four? (LA7.1.6.d)
 - a) He began work on a communication device.
 - b) In 1835, Morse became professor at New York University.
 - c) A magnet on a receiver would move a marker on a strip of paper.
 - d) The codes would be sent from a transmitter through a length of wire.

- 6) Which pattern of organization does the author use in the passage? (LA7.1.6.e)
 - a) cause and effect
 - b) compare and contrast
 - c) fact and opinion
 - d) sequence of events

- 7) When does Morse develop a code of dots and dashes for each letter of the alphabet? (LA7.1.6.e)
 - a) while studying art in England
 - b) while attending Yale University
 - c) while attending lectures at Columbia University
 - d) while a professor of art at New York University

- 8) What is the organizational pattern found in this passage? (LA7.1.6.e)
 - a) cause and effect
 - b) description
 - c) fact/opinion
 - d) sequence

- 9) When did Samuel Morse first become interested in electricity? (LA7.1.6.j)
- a) when he was a student in England
 - b) when he was a student at Yale University
 - c) when he was a student at Columbia College
 - d) when he was a professor at New York University

C4L Reading - Item Writing Tally Sheet

Grade 7- Informational

Passage Name: A Man with a Dream

Gr7 Vocabulary	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
LA 7.1.5 Vocabulary: Students will build literary, general academic, and content specific grade level vocabulary.					
LA 7.1.5.a <i>Determine meaning of words through structural analysis, using knowledge of Greek, Latin, and Anglo-Saxon roots, prefixes, and suffixes to understand complex words, including words in science, mathematics, and social studies</i>	1, 2	2			2
LA 7.1.5.c <i>Select and apply knowledge of context clues (e.g., word, phrase, sentence and paragraph clues, re-reading) and text features (e.g., glossary, headings, subheadings, index, tables, maps, graphs, charts) appropriate to a particular text to determine meaning of unknown words</i>	2		1		1
LA 7.1.5.d <i>Analyze semantic relationships (e.g., figurative language, connotations, subtle distinctions)</i>	2,3				
Gr7 Comprehension	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
LA 7.1.6 Comprehension: Students will extract and construct meaning using prior knowledge, applying text information, and monitoring comprehension while reading grade level text.					
LA 7.1.6.a <i>Analyze the meaning, reliability, and validity of the text considering author's purpose and perspective</i>	2, 3				
LA 7.1.6.c <i>Analyze author's use of literary devices (e.g., foreshadowing, personification, idiom, oxymoron, hyperbole, flashback, suspense, symbolism, irony)</i>	2, 3				
LA 7.1.6.d <i>Summarize, analyze, and synthesize informational text using main idea and supporting details</i>	2, 3		2		2
LA 7.1.6.e <i>Apply knowledge of organizational patterns found in informational text (e.g., sequence, description, cause and effect, compare/contrast, fact/opinion, proposition/support)</i>	2		2		3
LA 7.1.6.f <i>Apply knowledge of text features to locate information and gain meaning from a text (e.g., index, annotations, maps, charts, tables, graphs, headings, subheadings)</i>	1, 2				

<p>LA 7.1.6.g <i>Explain and make inferences based on the characteristics of narrative and informational genres (e.g., textbooks, myths, fantasies, science fiction, drama, periodicals, essays)</i></p>	2				
<p>LA 7.1.6.j <i>Generate and/or answer literal, inferential, critical, and interpretive questions, analyzing prior knowledge, information from the text and additional sources, to support answers</i></p>	1, 2, 3	1			1