**Samuel Morse:**  
Samuel Finley Breese Morse (1791-1872) was an American inventor and painter. After a successful career painting in oils (first painting historical scenes and then portraits), Morse built the first American telegraph around 1835 (the telegraph was also being developed independently in Europe).

A telegraph sends electrical signals over a long distance, through wires. In 1830, Joseph Henry (1797-1878) made the first long-distance telegraphic device - he sent an electric current for over a mile on wire that activated an electromagnet, causing a bell to ring.

Morse patented a working telegraph machine in 1837, with help from his business partners Leonard Gale and Alfred Vail. Morse used a dots-and-spaces code for the letters of the alphabet and the numbers ([Morse Code](http://www.enchantedlearning.com/morsecode/) was later improved to use dots, dashes and spaces: for example E is dot, T is dash, A is dot-dash, N is dash-dot, O is dash-dash-dash, I is dot-dot, S is dot-dot-dot, etc.). By 1838, Morse could send 10 words per minute. Congress provided funds for building a telegraph line between Washington D.C. and Baltimore, Maryland, in 1843. Morse sent the first telegraphic message (from Washington D.C. to Baltimore) on May 24, 1844; the message was: "What hath God wrought?" The telegraph revolutionized long-distance communications.

Enchanted Learning (2016). Morse Code. Retrieved on May 30, 2016 from <http://www.enchantedlearning.com/morsecode/>