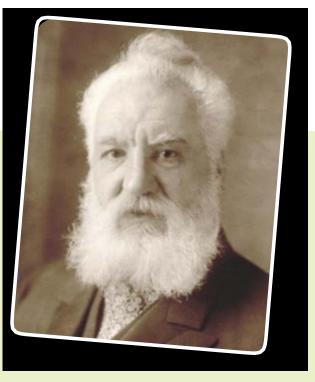
# Alexander Graham Bell

1847-1922

**Famous for:** 

Inventing the telephone

Alexander Graham Bell is credited with the invention of the telephone. The year was 1876 and he was 29 years old.



However Bell was not content with its success. He continued to test out new ideas throughout his life, exploring communications as well as many other scientific activities.

x = mz + a, y = nz + b $(x^2+y^2)^2 = 4a - 4a\sqrt{(x-c)^2+y^2+(x-c)^2+y^2} = 4a$ Transforming lives through  $|\frac{1}{e^{x}-1}| = \frac{1}{2} \lim_{x \to 0} (\frac{1}{x})$ 

# Alexander Graham Bell (1847-1922)

#### **Education**

Alexander Graham Bell's father educated him at home in his early years. Later Alexander enrolled at the Royal High School in Edinburgh. He left school at 15 and travelled to London to live with his grandfather for a year. Bell's grandfather, uncle and father were all elocutionists, studying speech for a living. It is therefore fitting that this is where Bell's interests would lie. In 1864, Bell took up a position as a 'pupil-teacher' of elocution and music at Weston House Academy in Elgin, Moray. The following year he attended Edinburgh University.

#### **Emigration Abroad**

Bell emigrated with his parents to Canada in 1870 after both his brothers died of tuberculosis.

In April 1871 he moved to Boston to take up a position as a teacher at the Boston School for the Deaf, established in 1869. The school still exists. It is now called the Horace Mann School for the Deaf and Hard of Hearing.

#### **Bell's progress in Boston**

In Bell's day, Boston was known as a centre for intellectual activity. Based there were:

- Harvard College the first institution of higher education in the United States
- The American Academy of Arts and Sciences
- Boston Athenaeum
- The Massachusetts Historical Society.

The installation of the first Atlantic telegraph cable in 1866 had caused great excitement in North America. Scientists and businessmen were starting to see opportunities opened by the advent of telegraphy.

In 1872, prompted to begin his own experiments, Bell tried to send multiple telegraph signals over a single wire.

#### Invention of the telephone

In 1875 Alexander Graham Bell constructed the first telephone with his assistant Thomas Watson. Two years later he formed the Bell Telephone Company and married Mabel Hubbard.

$$e^{x-1}$$
)=  $\lim_{x \to -1} \frac{e^{-1-x}}{e^{x}-1} = \frac{1}{2} \lim_{x \to -1} (\frac{1}{x} - e^{x}-1) = \lim_{x \to -1}$ 

## Later achievements

Bell was one of the founding members of the National Geographic Society in 1888.

Always a keen kite flyer, Bell designed a new type of kite in 1902, based on an assembly of tetrahedral shapes. And in 1919, he and Casey Baldwin set the world water speed record of 70.86 mph with the HD-4 hydrofoil.

Alexander Graham Bell died at his estate, Beinn Bhreagh, on Cape Breton Island on 2 August 1922. His wife followed him five months later.

### Did you know?

Alexander Bell added his middle name when he was 11 years old. 'Graham' was the surname of a family friend.

Helen Keller was one of Bell's most famous pupils. When he started as a tutor, she was a young child who could not see, hear or speak.

Taken from the National Library of Scotland Science Hall of Fame http://digital.nls.uk/scientists/biographies/index.html





$$\frac{1}{e^{x}-1}$$
 =  $\lim_{x \to \infty} \frac{e^{x}-1-x}{x(e^{x}-1)} = \frac{1}{2} \lim_{x \to \infty} (\frac{1}{x} - \frac{1}{e^{x}-1}) = \lim_{x \to \infty} \frac{e^{x}-1}{x}$ 

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