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WIRELESS ENGLISH
 English for Electricity, Electronics and Telecommunications

James Clerk Maxwell

James Clerk Maxwell, the Scottish physicist, was born on the 13th of June 1831, in Edinburgh.

He was very interested in Michael Faraday's work on electromagnetism. Faraday explained that electric and magnetic effects result from lines of force that surround conductors and magnets. Maxwell expressed an analogy between the behaviour of the lines of force and the flow of a liquid, deriving equations that represent electrical and magnetic effects.

In 1855 he produced a paper built on Faraday's ideas, and in 1861 developed a model for a hypothetical medium, that consisted of a fluid which could carry electric and magnetic effects. He also considered what would happen if the fluid became elastic and a charge was applied to it. This would set up a disturbance in the fluid, which would produce waves that would travel through the medium.



The German physicists Friedrich Kohlrausch and Wilhelm Weber calculated that these waves would travel at the speed of light. Maxwell finally published this work in his *Treatise on Electricity and Magnetism* in 1873.

ACTIVITIES

- 1 Answer the following questions.
 - 1 Who was James Clerk Maxwell?
 - 2 Which scientist was Maxwell influenced by?
 - 3 Express Maxwell's main theories and discoveries.
- 2 Scan the text and find the English equivalents of the following Italian words and terms.
 - 1 Linee di forza
 - 2 Circondare
 - 3 Articolo scientifico
 - 4 Disordine
 - 5 Velocità della luce