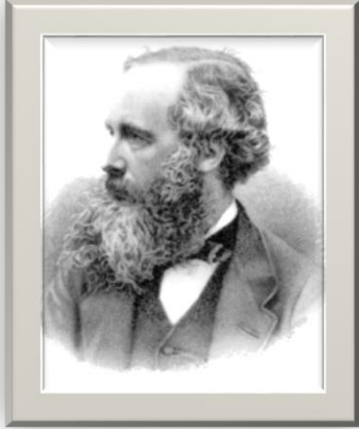


# James Clerk Maxwell

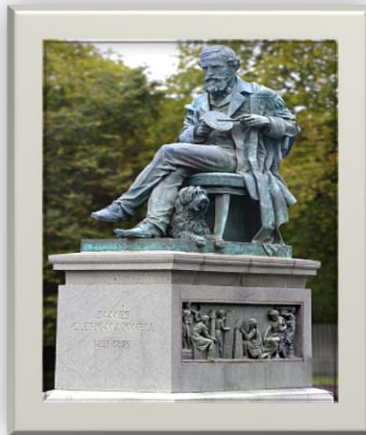
(13 June 1831 – 5 November 1879)



James Clerk Maxwell was born at Edinburgh, Scotland. He was a Scottish scientist working in the field of mathematical physics. As a great lover of Scottish poetry, Maxwell memorized poems and also wrote his own. (*A collection of his poems was published by his friend Lewis Campbell in 1882.*) In 1854, Maxwell graduated from Trinity with a degree in mathematics. He scored second highest in the final examination.

His most noticeable achievement was to formulate the classical theory of electromagnetic radiation, bringing together for the first time electricity and magnetism. In 1865, in his article: *A Dynamical Theory of the Electromagnetic Field*, he demonstrated that electric and magnetic fields travel through space as waves propagating in a medium at the speed of light in that medium. Maxwell also worked for developing the Maxwell-Boltzmann distribution.

In 1900, Maxwell and Planck discovered that the radiation spectrum of black bodies occurs only with discrete energies separated by the value  $h\nu$ , where  $\nu$  is the frequency, and  $h$  is a new constant, the so-called Planck's constant.



(The James Clerk Maxwell monument in Edinburgh, commissioned by the Royal Society of Edinburgh.)

*Teachers may suggest students to make a collage of photographs of scientists in physics depicting the advancements in the subject.*