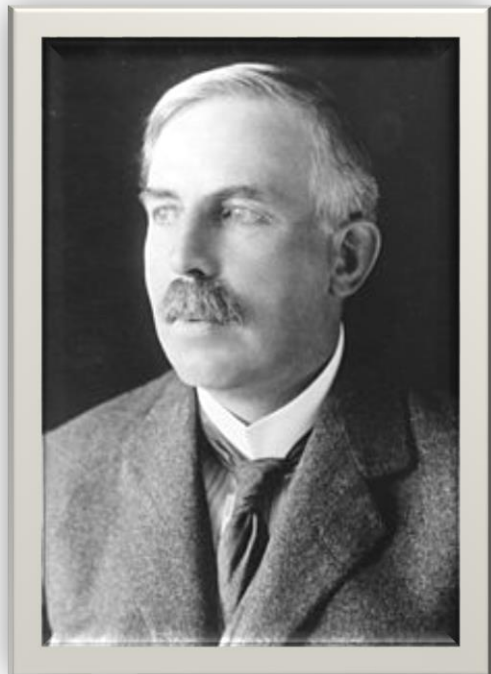
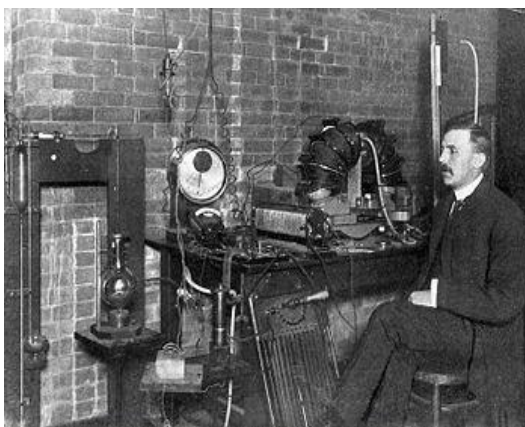


Ernest Rutherford (1871 – 1937)



Ernest Rutherford is a British physicist who did pioneering work on radioactive radiation. He is former research student of Sir J. J. Thomson. He was engaged in experiments on alpha (α)-particles emitted by some radioactive elements. In 1906, he proposed a classic experiment of scattering of these α -particles. He discovered alpha-rays and beta-rays along with Federick Soddy. He created the modern theory of radioactivity. He studied the thorium emanation and discovered a new noble gas, an isotope of radon, now known as thoron. By scattering alpha-rays from the gold foils, he discovered the atomic nucleus and proposed the planetary model of the atom. He also estimated the approximate size of the nucleus.

Rutherford published several books including the Radioactivity (1904), Radioactivity Transformations (1906), The Electrical Structure of Matter (1926), The Artificial Transmutation of the Elements (1933), and The Newer Alchemy (1937). A non-SI unit of radioactive decay, defining the activity of a radioactive material, Rutherford (Rd) is also named after him. One Becquerel equals one micro Rutherford; and one Rutherford is equivalent to 2.703×10^{-5} curie.



(Ernest Rutherford at the McGill University in 1905)

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