



Roger Bacon

1220 - 1292 ??

Roger Bacon was one of the most influential teachers of the 13th Century. An English philosopher, he has been described as '**a man born out of due time**' and he was the first among his contemporaries to advocate experimental methods as necessary, in order to give certainty to a scientific theory.

He was born in Ilchester in Somerset and was educated at the universities of Oxford and Paris. After completing his studies, he remained in Paris and taught for a time in the university, where he became aware of the work of Thomas Aquinas.

In about 1257 he returned to England and entered the Franciscan Order as a monk. He acquired a reputation for unconventional learning in philosophy and magic, and he was known as Doctor Mirabilis.

Many inventions were credited to him, some undoubtedly derived from his study of the work of Arab scientists. His writings brought new and ingenious views on optics, particularly on refraction and on the apparent increase in size of the sun and moon at the horizon.



He studied explosions

He studied the refraction of light

He was influenced by the work of Arab scientists



He found that with sulphur, saltpeter and charcoal, a substance could be produced that imitated lightning and caused explosions - in other words he experimented with gunpowder, though he never progressed very far with it. He published some remarkable speculations about lighter-than-air flying machines, mechanical transport on land and sea, and the construction of microscopes.

Eventually, his revolutionary ideas about the study of science led to condemnation by his superiors. For two long periods he was forbidden to write or teach, and was even imprisoned, an unusually harsh treatment at that time. Eventually he was released and returned to Oxford, where he died in 1292.

His importance lay in his appreciation of experimental methods. He wrote, '*There are two methods of investigation, through argument and through experiment. Argument does not suffice, but experiment does*'. Bacon deserves to be remembered for his glimpse of the true scientific method, a method which would not be generally accepted until three centuries later. He has perhaps the right to be called **the first English scientist**.