Fighting Disease

**Edward Jenner (1749-1823)**

Smallpox took over from the bubonic plague as the major killer disease in the 18th century. Many died and those who survived were left severely disfigured or blind. Inoculation was used as a method for gaining immunity that involved spreading matter from a smallpox scab onto an open wound. This would result in a mild dose of the disease that would give immunity to any further attacks, this was first promoted by Lady Mary Wortley Montague. However, inoculation was not without risk as some people died from this mild dose or became carriers of the disease.

**Who was Edward Jenner?**

Edward Jenner worked as a doctor in the village of Berkeley in Gloucestershire. He found that when he tried to inoculate some of the local people they refused. This was because they believed that if they had suffered from a mild form of cowpox, a disease that affected cattle, they would be immune from catching smallpox.

**What did Jenner discover?**

By observing local milkmaids, Jenner tested whether the belief that cowpox sufferers were actually immune to smallpox was true. On 14th May 1796 he conducted an experiment by scraping pus from a cowpox sore on the arm of a milkmaid and inserting it into two cuts on the arm of a young boy. On 1st July 1796 he did exactly the same with pus from a smallpox sore. The boy caught cowpox, but did not catch smallpox. After conducting this experiment on 23 different cases he concluded that those who had suffered cowpox were indeed immune to smallpox. Jenner called this new method ‘vaccination’ which means ‘from a cow’ as a way of distinguishing it from the process of ‘inoculation’.
What medical changes did Jenner bring about?
In 1798 Jenner published his findings and submitted them to the Royal Society who refused to publish them because of opposition to vaccination from doctors. Doctors opposed vaccination because they were suspicious of new ideas and were accustomed to using inoculation. However, Jenner did have some support as members of the Royal Family were vaccinated and vaccination became widely accepted abroad. In 1802 he was awarded a grant of £10,000 by the government and then a further £20,000 in 1806. Vaccination became free for all infants in 1840 and became compulsory in Britain in 1853 and in 1980 the World Health Assembly declared that smallpox had been eradicated throughout the world.