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| Key individual | Description  |
| Hippocrates  | Developed the ideas of clinical observation (watching the patient and recording the symptoms) and The Theory of the Four Humours.  |
|  | Took Hippocrates’ ideas to Rome. Developed the Theory of Opposites; this was unchallenged for 1,500 years. |
|  | Carried out own dissections, finding 300 faults in Galen’s theories. Published illustrated textbook *Fabric of the Human Body* (1543) that challenged/corrected Galen’s earlier mistakes on Anatomy. Led to further research. |
|  | Discovered that the heart works like a pump, not the liver as Galen said. Worked out blood is circulated around the body. Published his findings – *On the Motion of the Heart and Blood in Animals (1628).* Little impact at the time. |
|  | Was able to prove Harvey’s blood circulation theory by discovering capillaries in 1661.  |
|  | The ‘English Hippocrates’; encouraged observation.  |
|  | Discovered ‘animalcules’ in 1673 using a powerful microscope. He did not know he’d discovered microbes (germs). |
|  | Created the world’s first ever vaccination in 1796, using cowpox to treat smallpox. He published his findings in 1798. He tested his theory on James Phipps and then 23 others. By 1800, 100,000 people had been vaccinated worldwide. In 1805 Napoleon had all his soldiers vaccinated. By 1980, the World Health Organisation declared smallpox non-existent. BUT he could not explain how the vaccination worked which led to opposition e.g. anti-Vaccination League 1866. |
|  | Discovered Chloroform during and after dinner sampling session with friends. He struggles to get the medical world to accept the drug above Ether. Doctors were wary of how much to give patients. Only 11 weeks after its first use by Simpson, a patient (Hannah Greener) died under chloroform in Newcastle. The patient was only having an in-growing toenail removed (non-life threatening). It took the backing of Queen Victoria (1857 – 8th child) for chloroform and Simpson to gain worldwide publicity. Led to the Black Period of surgery  |
|  | Wrote *One the Sanitary Conditions of the Labouring Population,* in 1842, which became the basis of the First Public Health Act of 1848.  |
|  | Doctor who proved that cholera was waterborne by investigating in Soho London (the Broad Street pump) in 1854 |
|  | Increased sanitation in hospitals. The impact of these changes was shown instantly in Scutari, Crimea where the death rate fell from 40% to 2%! She published *Notes on Nursing* in 1859. This book highlighted the importance of practical care and maintaining high standards. It was translated into 11 languages. She also published *Notes on Hospitals* in 1863. She set up a training schools for nurses at St. Thomas’s Hospital. This helped nursing to become a respected profession.  |
|  | With the help of £3m from the government, he built London’s first sewer system 1858-65, following the Great Stink of 1858.  |
|  | Developed Germ Theory in 1861 whilst he was working on a method to keep beer and wine fresh |
|  | Used Carbolic Spray from 1867 during surgery to fight infection. It reduces the casualty rate of his operations from 45.7% of deaths to just 15.0 % dying. This led to asceptic surgical methods (gloves, sterilised equipment) |
|  | Discovers the bacteria that causes anthrax in 1881. He establishes a new method of staining bacteria to identify which microbes cause which disease. Using his methods, the causes of many diseases were identified quickly. E.g. 1882 – Tuberculosis; 1883 – Cholera; 1887 – Meningitis |
|  | He uses Koch’s work to develop vaccinations for different diseases e.g. rabies 1885 (Joseph Meister) |
|  | Created the first chemical cure for a disease, Salvarsan 606 for syphilis (called the ‘magic bullet’).Developed Koch’s work: used chemicals to target disease microbes without harming healthy tissue. |
|  | He identified and published the discovery of penicillin, an anti-biotic mould that killed bacteria (1928).  |
|  | Recognised antibiotic potential of penicillin and turned their offices into laboratories (with mostly home-made equipment) to produce enough penicillin to test 8 mice. Following success, further tested on a human, Albert Alexander. Received US government funding (1941) to mass produce penicillin for use on soldiers in WWII. By 1945, 250,000 British & US soldiers treated.Penicillin still used as an antibiotic and has saved countless lives to date.  |
|  | Report about ways to fight the 5 ‘Giant Evils’; ‘Want, Disease, Ignorance, Squalor and Idleness’(1942). Argued gov’t should ‘take charge of social security from the cradle to the grave’. Led to NHS (1948) and Welfare State after WWII. |

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| Howard Florey, Ernst Chain | James Simpson  | Thomas Sydenham | Marcello Malpighi  | Louis Pasteur |
| Antoine Van Leeuwenhoek  | Galen | William Harvey | Edward Jenner | Louis Pasteur |
| Edwin Chadwick | Robert Koch  | Florence Nightingale  | Andreas Vesalius | Paul Ehrlich  |
| Joseph Bazalgette  | John Snow | Joseph Lister | Alexander Fleming  | William Beveridge  |

Challenge: Complete the second column:

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| Question [marks] | Structure and/or sentence starters | Top tips  |
| Q1 Describe two features of…… [4] |  | - Use the big Q1 grid on SMHW on revise for this. - Give specific details and facts  |
| Q2a How useful are Sources A and B for an enquiry into… [8] |  | - Spend time annotating the sources first. - Focus on the positives, why it *is* useful and what is useful for. |
| Q2b How could you follow up Source …. to find out more about…. [8] | 1. “quote” 2. Why / How…. ?3. Army records / statistics of ….. / showing…. / National newspapers commenting on…. Medical articles about… / Personal accounts of…. Photographs of….. / showing…. / Hospital records of…. / showing….4. This would help me…  | - Punctuation matters – the ‘detail’ to follow up needs to be a “quote” and the ‘question you would ask’ a ? - Your question must relate to the quote you’ve given and original question |
| Q3 Explain one way in which X was different / similar to Y [4] |  | - Work out the time periods before you start writing. - You need two SPECIFIC examples, on for each period.  |
| Q4 Explain why….. [12] |  | - Use factors as your overall points - Lengthy explanations using the words of the question - Remember to go beyond the bullet points; you don’t have to use them as points either! |
| Q5 or Q6 ‘XXX was the turning point / most important reason why….’ How far do you agree? [16 + SPaG] |  | - Use ‘without’ in your judgement- Give a judgement in the introduction as well as the conclusion- Write more than 2 pages! |