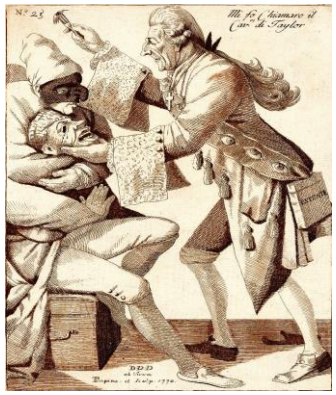
Cause	Treatment	Prevention
Miasma Spontaneous Generation Germ Theory	Herbal Remedies, internal and external surgery	Vaccinations, 1875 Public Health Act – Cleaning cities, provide clean water, public toilets, street lighting and public parks.

Key Individuals	
Jenner, 1796	Created the first ever vaccine for smallpox using cowpox matter. Jenner's work proved that scientific methods could lead to disease being wiped out. However, he did not know why it worked, the link between cowpox and smallpox was unique and did not lead to other vaccines, many opposed the vaccine
Snow, 1854	Identified that cholera was waterborne. Many cholera deaths were prevented in Soho after Snow stopped people from using the water pump. Many did not believe Snow's theory. Snow's work and other theories led to a sewer system being built and the 1875 Public Health Act.
Nightingale, 1859	Made nursing a respectable job through training of nurses. She created pavilion style hospitals and encouraged cleanliness within wards after her work in the Crimean War. She wrote guides on nursing and hospital care that were used globally.
Pasteur, 1861	Created the Germ Theory which argued that germs cause disease. Also developed a process to create vaccinations using a weakened strain of the bacteria to build up antibodies to fight off bacteria in infected.
Lister, 1865	Lister developed the first antiseptic, Carbolic Acid, which was used in surgery for prevention of infection due to the rise in cases during the Black Period of Surgery. Lister used Carbolic Acid to clean wounds and equipment and later developed a spray to clean the air. However, his work was unpopular as it was not 100% effective and many thought it was a waste of time.
Koch,1882	Identified microbes that caused disease proving the Germ Theory. Then continued to create vaccines for diseases such as TB.



Keywords	
Microbes	Living organism that is too small to see without a microscope
Aseptic	Germ free environment
Laissez Faire	'Leave be'

Care of the Sick	
Pharmacies	Companies such as Boots and Beechams set up Pharmacies which provided medicine for the poorer within society. These were run as a business and allowed for new experiments to be made in herbal remedies. These replaced Apothecaries.
Hospitals	New hospitals, financed by charities and local councils opened during the 19th century. Due to the work of Nightingale, organisation and cleanliness of hospitals increased. The Germ Theory led to improved hygiene. Previously, the elderly or sick were forced to enter workhouses, but public pressure led to infirmaries being set up for the poorest in society. Specialist hospitals were developed such as asylums for the mentally ill and fever houses for infectious diseases.
Surgery	Surgery became pain free and patients didn't struggle, so surgeons could take more time and be more careful. Deeper, more complex surgery became possible and the death rate dramatically dropped. Aseptic surgery was possible because antiseptics were used to clean wounds and operating theatres, which reduced the risk of infection.

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HISTORY

Year 11 | Topic 3: Industrial Medicine C1750 - 1900

Cause	Treatment	Prevention
God Astrology Miasma Imbalance of Four Humours	Prayer, Pilgrimage, Kings Touch, Nothing, Bloodletting, Purging, Emetics, Clysters, Food, Drink, Bathing, Herbal Remedies, Folk Remedies.	Regimen Sanitatis Prayer Bloodletting Purifying the air – Herbs

All the conditions were right for an epidemic. Doctors were powerless against infectious disease. People were weakened by war and harvest failures. Germs, the fleas which carried them, and the rats which carried the fleas, flourished in the dirty towns. Busy trade routes carried the plague from one place to another. The plague arrived at Melcombe Regis in Dorset in June 1348 and it spread throughout the south of England. In 1349 it reached Wales, Ireland and the north of England. By 1350, it had made it to Scotland. Estimates suggest as much as half the population died

Key Individuals	
Hippocrates	Hippocrates was known as the Father of Medicine, He developed the Theory of the Four Humours; that the human body was made up of four humours Black Bile, Choler, Phlegm and Blood. If one of these humours was out of balance it would cause the patient to be ill.
Galen	Galen developed the Theory of the Four Humours with the Theory of the Opposites. He developed knowledge of anatomy through the dissection of animals. Galen's work was endorsed by the Church as it matched to their ideas of creationism. Doctors would train using his books.

Keywords	
Creationism	God created the human body
Penance	A punishment inflicted upon yourself for sin
Quarantine	Separating the sick from the healthy to stop the spread of disease

Care of the Sick	
In the Home	The vast majority of the sick were cared for within the home. Women would care for their relatives by making their patient comfortable, preparing restorative foods and mixing herbal remedies.
Hospitals	The Catholic Church provided 'hospitality', infectious patients and pregnant women were not treated. 30% of hospitals were run by the Church, the rest were funded by endowments but the Church was also in charge of running these hospitals. They were clean and good places to rest and recover.
Physicians	Diagnosed illness using urine and star charts, treatments based on Galen. Can be expensive, male, does not administer treatment only diagnosis. Trained in university.
Barber Surgeons	Practices bloodletting, can pull rotten teeth and lance boils. Basic surgery, such as cutting out bladder stones and amputating limbs. Is not trained and is not respected by trained physicians.
Wise Women	Knew traditional remedies for things such as sore throats, stomach aches and temperatures. Would be able to deal with broken bones and childbirth. Used some remedies based on herbs and other plants, and others based on charms and spells.
Apothecaries	Is trained but has no medical qualifications. Mixes various ingredients to produce medicines and mixtures for the Physician. Many also many up their own mixture for a price, cheaper than consulting a Physician. Male.

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HISTORY

Year 11 | Topic 1: Medieval Medicine C1250 – 1500

Cause	Treatment	Prevention
Germs / Bacteria DNA Lifestyle Choices: Smoking, drinking, diet, tanning, unprotected sex	Sulphonamides (magic bullets) Antibiotics Chemical treatments – tested and regulated Surgery: robotic, micro, laparoscopic	Government Laws Education Vaccination

Key Individuals	
Ehrlich 1909	Created the first Sulphonamide (magic bullet) Salvarsan 606 to successfully treat Syphilis. This was the first time selective toxicity was used and kick started the pharmaceutical industry.
Fleming 1929	Identified Penicillin as an effective way to kill infection. Could not acquire funding to mass produce, was not a good public speaker. Published his work in 1929.
Domagk, 1932	Domagk discovered that a bright red dye called Prontosil killed bacterial infections in mice. Domagk was forced to test Prontosil on his own daughter, who had developed blood poisoning, it cured her.
Florey and Chain 1944	Mass produced Penicillin with the help of the USA government and the pharmaceutical company Pfizer in 1944. The antibiotic was able to be used during the D-Day landings in WW2.
Bevan 1949	Health Secretary of the Labour Party, used the Beveridge Report (1942) to set up the NHS in 1948 to provide care of the sick from 'cradle to the grave' creation of the Welfare State.
Watson and Crick 1953	Discovery of DNA Used photograph of DNA taken by Rosalind Franklin to map out DNA form Human Genome Project was launched in 1990 to map out and decode each genome. This allows for DNA to be used in cause, treatment and prevention.

Keywords	
Selective Toxicity	Using chemical dyes to attract a harmful chemical to an infected microbe
Genome	Information needed to build a particular organism
Pharmaceutical	Business of creating drugs and treatments for diseases

Care of the Sick	
NHS	In c1900 most sick people were cared for within their homes, doctors had to be paid and so were only used for serious illness. The NHS made health services free at the point of service, which gives everyone access to medical care and treatment. However, now hospitals were only for treating the sick not looking after the elderly.
Schools	Compulsory vaccinations in schools ensure the mass population are vaccinated against serious illness such as; HPV, Meningitis, Mumps and Rubella. Education informs students of how life choices can lead to illness and the consequences of poor diet and sexual health

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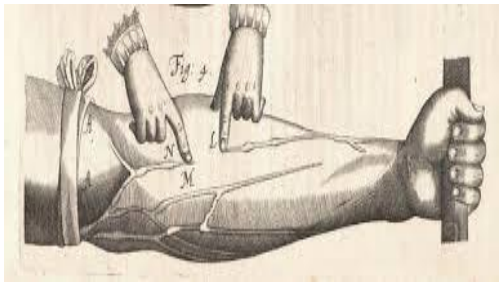
HISTORY

Year 11 | Topic 1: Modern Medicine

C1900 – Present Day

Cause	Treatment	Prevention
Miasma Imbalance of Four Humours	Bloodletting, Purging, Emetics, Clysters, Food, Drink, Bathing, Herbal Remedies (New World), Folk Remedies, transference, Chemical Cures.	Regimen Sanitatis now including weather Bloodletting Purifying the air – Herbs

The Great Plague, 1665: The main difference between the 1665 and 1348 plagues was a far greater reaction by the government. Local councils were ordered by King Charles II to try to stop the plague from spreading by; killing cats and dogs, cleaning the streets, public prayers, daily carts to collect the dead, mass graves and closing of public gathering places.



Key Individuals	
Vesalius, 1543	He improved understanding of anatomy. He proved the work of Galen wrong. He made the study of anatomy fashionable. He encouraged and inspired other medical professionals to carry out dissections and make further discoveries. *On the Fabric of the Human Body*
Harvey, 1628	He proved that some of Galen's theories were wrong, bringing into question Galen's other theories. He improved knowledge about the human body and blood circulation. His discoveries left many unanswered questions and encouraged enquiry. No development in cause, treatment or prevention.. *An Anatomical Account on the Motion of the Heart.*
Sydenham, 1676	Worked as a doctor in London. He observed patients and recorded their symptoms rather than relying on medical theory. He developed the idea that disease had nothing to do with the nature of the person who had it. He based treatment on the disease as a whole. He developed the idea there were species of disease. *Observationes Medicae*

Keywords	
Alchemy	Early form of Chemistry
New World	North and South America
Dissolution	Destruction (in this case of the Catholic Church)

Changing influence of the Church: New religious ideas challenged the authority of the Catholic Church. People began to look for new explanations for the cause of disease, moving away from the teachings of Galen and the idea that God caused disease.

Change in the work of Scientists: Royal Society set up in 1660 encouraged 'Nullus in Verba' (take no one's word for it) a place where scientists could share, test and challenge new ideas. These ideas were shared through published journals *Philosophical Transactions* which was aided by the development of the Printing Press.

Care of the Sick	
In the Home	The vast majority of the sick were cared for within the home. Women would care for their relatives by making their patient comfortable, preparing restorative foods and mixing herbal remedies.
Hospitals	By 1500, hospitals were treating more sick people and were being used less by travellers and pilgrims. In 1536, the Dissolution of the Monasteries in England caused many hospitals to close. Some free, charity funded hospitals were set up but it wasn't until well into 1700 that the number of hospitals increased back to the original number. More pest houses began to appear, where people suffering from contagious illness could go for care.
Physicians	Were still the only medical professionals trained at universities. Training for medical professionals was improved and medical books and ideas were more accessible due to the Printing Press. The work of Vesalius and decline of the Catholic Church (Reformation) meant dissection was more widespread.

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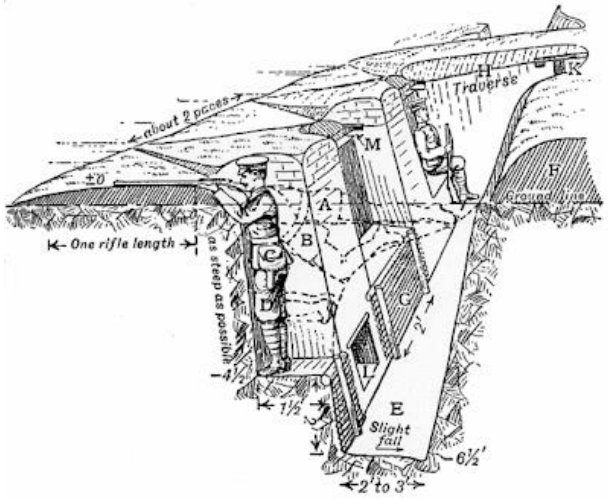
HISTORY

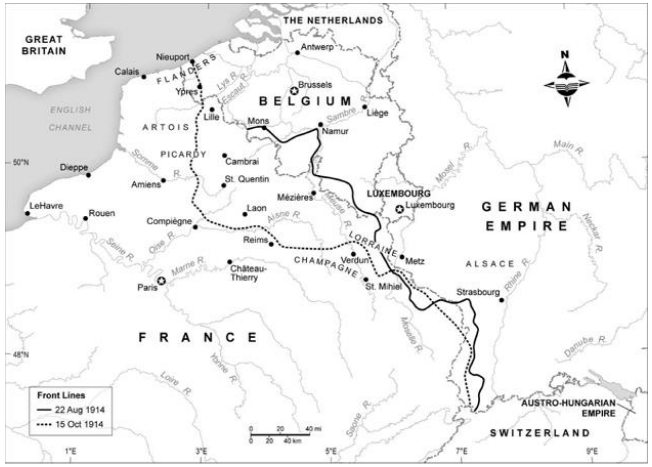
Year 11 | Topic 2: Renaissance Medicine

C1500 - 1750

Key Events of the Western Front		
4 August 1914	Britain declares war on Germany	
Oct-Nov 1914	First battle of Ypres	British casualties were over 50,000 but kept control of Channel ports.
Apr-May 1915	Second battle of Ypres	Germans move 2 miles closer to town of Ypres; first use of chlorine gas; British losses of 59,000
July 1916	Battle of the Somme	The Allies advance 5 miles using artillery bombardment to break through enemy lines. This leads to much higher casualties (400,000 men).
6 April 1917	America enters the war	Blow to German morale and a decisive turning point in the war.
Apr-May 1917	Battle of Arras	British advance 8 miles; 160,000 casualties
July 1917	Third battle of Ypres	Moved the edge of the salient back 7 miles; 245,000 casualties
Oct 1917	Battle of Cambrai	First large scale use of tanks.
July 1918	Hundred days offensive	Allies launch a series of sustained attacks against the Germans which leads to Germany's surrender.
11 Nov 1918	Germany surrenders	End of World War I at 11.00 am.

Keywords	
Barbed Wire	Metal wire with sharp points used in no-man's-land to protect from enemy attack. It made it difficult for men to get through without being trapped by the wire.
Brodie Helmet	Steel helmet held with a strap. Introduced in 1915, it reduced fatal head wounds by 80%.
Chlorine Gas	Causes burning pain in throat and eyes and can lead to death by suffocation. First used by Germans in the second battle of Ypres, 1915
FANY	A women's voluntary organisation which provided medical services on the frontlines such as driving ambulances and emergency first aid.
Mustard Gas	Odourless gas which passes through clothing to burn the skin, causing internal and external blisters. Gas masks offer little protection against mustard gas, as it goes through clothing. First used by the Germans in 1917.
Phosgene gas	Similar to chlorine gas but faster acting and can kill exposed person within 2 days. First used end of 1915.
Trench System	A complex network of trenches in which men could live and fight. Trenches were dug to a depth of about 2.5m in a zig-zag pattern to confuse the enemy. Trenches were built over a distance of 400 miles all the way from the northern French coast to Switzerland.





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HISTORY

Year 11 | Topic 1: Modern Medicine

C1900 – Present Day

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HISTORY
Year 10 | Topic 1: Trench Warfare
1914 - 1918

Key Individuals

X-Rays	A type of electromagnetic radiation that can provide imaging of the inside of the body. Discovered by accident in 1895 by Wilhelm Roentgen, a German physicist. X-rays were used in the war to identify shrapnel and bullets in wounds
Blood Transfusions	Blood taken from a healthy person and given to another person. Developed as follows: Discovery of blood groups in 1901 by Karl Landsteiner. In 1916, Francis Rous and James Turner develop a method for storing blood for up to 4 weeks by adding a citrate glucose solution to it. Stored blood was used to treat injured at the battle of Cambrai in 1917.
Brain Surgery	20% of all wounds on the Western Front were to the head, face and neck. These were often fatal. Harvey Cushing, an American neurosurgeon, developed new techniques in brain surgery using a magnet to remove metal fragments from the brain. He also operated using local rather than general anaesthetic, to reduce the risk of swelling in the brain.
Plastic Surgery	Developed by Harold Gillies who was sent to the Western Front in January 1915. Gillies saw many head injuries that caused severe disfigurement and became interested in facial reconstruction. Plastic surgery was carried out in Britain, mainly at the Queen's Hospital in Sidcup. By the end of the war, nearly 12,000 plastic surgery operations had been carried out there
Thomas Splint	Created in the late 19th century by Robert Jones and his uncle Hugh Thomas in their medical practice, this splint was designed to stop joints from moving. The introduction of the Thomas splint to the Western Front in December 1915 helped increase survival rates for fractures from 20% to 82%.
Dealing with Infection	Wound excision or debridement: The cutting away of dead, damaged or infected tissue from a wound to stop infection spreading. After excision, the wound would be closed by stitching. Carrel-Dakin Method: A method for treating wounds with a sterilised salt solution through a tube. Amputation: This was done as a last resort to stop infection from spreading.

Care of the Sick

The main stages in the chain of evacuation were:
1. Regimental Aid Posts (RAP)
2. Dressing Stations
3. Casualty Clearing Stations
4. Base hospitals

RAP	Located within 200m of the front line, in deserted buildings or communication trenches. Manned by a medical officer and stretcher bearers with first-aid knowledge. Its purpose was to give immediate first aid and to get as many men back to the fighting as possible. It could not deal with serious injuries
Dressing Stations	Located in abandoned buildings or dugouts about half a mile from the front line. Staffed by medical officers, stretcher bearers and nurses. Injured men would walk to the dressing station or be carried there by stretcher bearers.
Casualty Clearing Stations	Located far enough from the frontline to provide safety against attack but close enough to be accessible to ambulance wagons. Medical officers would operate on critical injuries at the CCS. When arriving, wounded soldiers were divided into 3 groups (triage) to help medical staff make decisions about their treatment: 1) walking wounded 2) those in need of hospital treatment 3) those unlikely to recover from their wounds
Base Hospitals	These hospitals were located near the French or Belgian coast so that the wounded could be easily transported back to Britain. As the war progressed, soldiers' wounds were increasingly dealt with at Casualty Clearing Stations and not at base hospitals because wounds had to be dealt with quickly before gangrene set in. This meant base hospitals were responsible for continuing the care of the wounded before they were either sent back to Britain or returned to the battlefield.

Keywords

Gangrene	A condition where a loss of blood supply causes body tissue to die. Gangrene can occur as a result of an injury and typically starts in toes, feet, fingers and hands. Treated by surgical removal (or amputation) of the affected area. Gas gangrene is an infection that produces gas in the gangrenous wound. The bacteria for gas gangrene spread from the soil on the Western Front, which had been heavily farmed with fertiliser before the war.
Trench Fever	Flu-like condition spread by lice in the trenches.
Shellshock	A condition that was little understood at the time of the war. Soldiers experienced headaches, nightmares, loss of speech, shaking and complete mental breakdown. Many men were treated for shellshock at the Craiglockhart hospital in Edinburgh.
Autoclave	Machine invented in 1881 which sterilised surgical instruments in boiling steam