			Meden School C	Curriculum Plannin	ng		
Subject	History	Year Group	10/	Sequence No.	1	Topic	Britain Health and the People

Retrieval	Core Knowledge	Student Thinking
What do teachers need retrieve from students before they start teaching new content ?	What specific ambitious knowledge do teachers need teach students in this sequence of learning?	What real life examples can be applied to this sequence of learning to development of our students thinking, encouraging them to see the inequalities around them and 'do something about them!'
What do we know about disease in general? What factors influence disease?	Disease Hippocrates: The father of medicine At the time: He believed that the body was made up of the Four Humours (black bile, yellow bile, phlegm and blood). He believed that when people became ill when one of their four humours was unbalanced. At the time: He created the Hippocratic Oath – doctors swear to work for the patients, not just to become wealthy.	Through this knowledge gained in this topic students will learn about how the events in the past have influenced current day medicine. They will make links between historic issues and current issues society faces in terms of health. They will get a chance to debate moral issues around health and wellbeing that are prevalent in society. They will do this through the following activities:
What were Hippocrates ideas? How did Galen develop them?	Overtime: He encouraged observation and recording of illnesses and treatments. Could be used to help diagnose other patients in the future. Galen Galen was a Roman physician who built on Hippocrates Theory of the Four Humours and developed ideas on how to treat illness through his ideas on the Theory of the Opposites. Overtime: His influence reigned supreme over medicine for fifteen centuries after his death. It was not until the Renaissance that many of his theories were challenged	Why would a doctor still use clinical observation today? Why do you think doctors still take the Hippocratic oath?

	Nowadays we still recognize his most important discovery that arteries carry blood.	
	The Christian Church promoted his teachings which were used to train medical students. However criticising Galen was seen as heresy.	
	Christianity and medicine	
	The Christian Church was a powerful organization in the Middle Ages and greatly influenced the decision of Kings and Emperors in Europe. It had a say in how people should run their lives	
What ideas of Galen's did the church like?	The Church encouraged the belief in miraculous healing. Shrines were built filled with the bones, hair and other body parts of saints. People went on a pilgrimage to these shrines such as the shrine of Thomas Becket in Canterbury to be healed and pray for forgiveness.	Does the Christian church still influence beliefs around health around the world? Discuss use of Condoms etc.
	Hospitals: Between 1000 and 1500AD, more than 700 hospitals were started in England. Many hospitals were centres of rest where the sick might recover in quiet and clean surroundings. Many were small with only enough room for 12 patients (as Jesus had disciples). Many hospitals did not have doctors but a Chaplain (priest) and were run by monks or nuns on a strict pattern of diet and prayer. Most hospitals relied on charity, funding from the Church or wealthy patrons.	
What ideas did the church follow from Hippocrates?	In a hospital, nuns fed the sick and gave them herbal remedies but a prayer was the most important treatment. At the end of the hall (or ward) was an altar where priests said mass seven times each day. The patients joined in, hoping that prayer would help them recover	How are hospitals different today? Who do hospitals in this country treat? Is this the same all over the world?
	Specialist hospitals were set up: Bedlum (lunatics), Monasteries (sick), Almshouses (pregnant women), Lazar (lepers) and Hospitallers (soldiers)	
	Islamic medicine	

He described how to perform simple surgery. His ideas allowed doctors to operate on veins and remove cancers. He used tubes to remove fluids. He could amputate arms and legs using anaesthetics like opium and operated on eyes to remove cataracts. Rhazes He agreed with Hippocrates and Galen to observe patients and study diseases. He wrote over 100 books on medicine. He wrote observations on smallpox and measles and the symptoms of each. Bimaristans (hospitals) treated rich and poor The Black Death The Black Death was an endemic disease of the Medieval period. It began in Asia and rapidly spread through trade routes in Europe. What were the main differences between Islamic medicine and Christian medicine? What would the church believ3 caused He described how to perform simple surgery. His ideas allowed doctors to operate on veins and remove cancers. He used tubes to remove fluids. He could be period on study diseases. He wrote over 100 books on medicine. He wrote observations on smallpox and measles and the symptoms of each. Bimaristans (hospitals) treated rich and poor The Black Death The Black Death was an endemic disease of the Medieval period. It began in Asia and rapidly spread through trade routes in Europe. Are Bimaristans the same as hospitals today nearly half the population.			1
He wrote a million-word book on medicine 'The Canon of Medicine'. It contained all sorts of treatments for all known diseases and was used by trainee doctorsin Britain as a textbook until 1600's Abucasis He described how to perform simple surgery. His ideas allowed doctors to operate on veins and remove cancers. He used tubes to remove fluids. He could amputate arms and legs using anaesthetics like opium and operated on eyes to remove cataracts. Rhazes He agreed with Hippocrates and Galen to observe patients and study diseases. He wrote over 100 books on medicine. He wrote observations on smallpox and measles and the symptoms of each. Bimaristans (hospitals) treated rich and poor The Black Death The Black Death was an endemic disease of the Medieval period. It began in Asia and rapidly spread through trade routes in Europe. What would the church believ3 caused What would the church believ3 caused Abucasis He described how to perform simple surgery. His ideas allowed doctors to operate on veins and remove cancers. He used tubes to remove fluids. He thriving city? What has happened there in last 20 years? Does racism in professions still exist today The Black Death The Black Death Asia and rapidly spread through trade routes in Europe. Are Bimaristans the same as hospitals toda onearly half the population.		Caliphs provided peace and order needed for medical progress. They were also interested in science and supported Islamic medicine. Baghdad was the capital	
He agreed with Hippocrates and Galen to observe patients and study diseases. He wrote over 100 books on medicine. He wrote observations on smallpox and measles and the symptoms of each. Bimaristans (hospitals) treated rich and poor The Black Death The Black Death was an endemic disease of the Medieval period. It began in Asia and rapidly spread through trade routes in Europe. In 1348 it arrived in Britain. At least 1.5 million people died. In Europe it killed nearly half the population. What would the church believ3 caused		He wrote a million-word book on medicine 'The Canon of Medicine'. It contained all sorts of treatments for all known diseases and was used by trainee doctorsin Britain as a textbook until 1600's Abucasis He described how to perform simple surgery. His ideas allowed doctors to operate on veins and remove cancers. He used tubes to remove fluids. He could amputate arms and legs using anaesthetics like opium and operated on	thriving city? What has happened there in the
The Black Death The Black Death The Black Death was an endemic disease of the Medieval period. It began in Asia and rapidly spread through trade routes in Europe. In 1348 it arrived in Britain. At least 1.5 million people died. In Europe it killed nearly half the population. Are Bimaristans the same as hospitals todate nearly half the population.		He agreed with Hippocrates and Galen to observe patients and study diseases. He wrote over 100 books on medicine. He wrote observations on smallpox and measles and the symptoms of each.	Does racism in professions still exist today?
medicine? In 1348 it arrived in Britain. At least 1.5 million people died. In Europe it killed nearly half the population. What would the church believ3 caused Are Bimaristans the same as hospitals todal nearly half the population.		The Black Death The Black Death was an endemic disease of the Medieval period. It began in	
the black death? Bubonic: This was spread by fleas from rats. Buboes or lumps were found on a person's groin, neck and armpits. The lumps oozed pus and bled when opened, then a high fever and vomiting of blood would follow. Does the Black Death have any similarities	medicine? What would the church believ3 caused	nearly half the population. Bubonic: This was spread by fleas from rats. Buboes or lumps were found on a person's groin, neck and armpits. The lumps oozed pus and bled when opened,	Are Bimaristans the same as hospitals today? Does the Black Death have any similarities to

	Pneumonic: This was more deadly; it infected the lungs, causing fever and coughing and was spread by contact with a victim's breath or blood.	
	Beliefs: • Doctors blamed it on the position of stars and planets • Bad air (miasmas) • Jews poisoned the drinking wells • God's punishment for sins	
How would the church treat illness?	Treatments: • Prayers were used to ask God for forgiveness. • Religious public marches were held to ask God to end the epidemic. • Candles were lit as a symbol of hope and people believed it would deter the darkness of death. • Bleeding and herbal ointments were used to treat the plague. With figs, onions and butter applied to the buboes. • Flagellants whipped themselves and	
	Overtime: The government panicked and passed a Law about wages and movement. Peasants could only be paid the same as wages before 1346. Also, peasants were not allowed to leave the village they belonged to	What treatments were used during the Coronavirus pandemic. Were these
	Overtime: The reputation of the church was damaged with the Black Death. Although many good and experienced priests were killed, some Churchmen were called cowards as they fled their villages.	treatments available worldwide?
	Nowadays: The Church does not have the power it once had over people and does not dictate over medicine. Moreover, the peasants laid the foundations for the Trade Union movement to come.	
How are the Black Death and Blague	The Plague	
How are the Black Death and Plague similar/different?	In 1665, it returned once more with devastating results. About 100,000 people in London alone were killed, which was a quarter of the city's population.	
	It became known as the Great Plague. It also killed thousands more in the rest of the country. Although there were differences, but beliefs and treatments still stayed the same.	
	There were however some differences: • There was a much more organised approach to dealing with the Plague this time • Majors and councilors issued	

	orders to try to halt the disease. They paid 'women searchers' who would	
	examine the sick and note those with plague symptoms • The plague victims	
	were then 'quarantined' (locked up) in their houses. Watchmen stood guard to	
	make sure that they did not leave and spread the disease • Those houses with	Is Quarantine the right thing to do or should
	plague victims had a red cross painted on the door with the words 'Lord have	we have freedoms to do what we want?
	mercy on us.' • Homeowners were ordered to sweep the street in front of	
	their houses to remove the poisons in the air (miasmas) • Pigs, dogs and cats	Should we have to wear masks to prevent the
	were not allowed in the streets	spread?
	Edward Jenner	
Who do you think would oppose	One of the biggest killer diseases in the eighteenth century was smallpox. It	
Vaccination in this time period?	was highly infectious virus which passed from one person to another by	
,	coughing, sneezing or touching. It killed 30% of the people who caught it.	
	Doctors at the time tried to prevent it by using inoculation. This was	
	introduced by Lady Wortley Montague from Turkey in 1721. It became big	
	business and very profitable to many	
	Inoculation involved scratching pus or scabs from a smallpox victim onto a	
	healthy person's skin which allowed them to build up a resistance against	Why are some people opposed to
	attacks of the full killer form of the disease. However, it was dangerous as	vaccination?
	sometimes inoculation gave people a strong (instead of mild) dose of smallpox	
	which could kill them. Furthermore, it was really only the rich who could afford	Should we have a choice to get vaccinated or
	it and any inoculated person could still pass smallpox onto others.	should it be made compulsory?
	Jenner had heard that milkmaids who caught cowpox from cows never caught	
	smallpox. In 1796 Jenner decided to carry out an experiment. He used a poor	
	local boy, James Phipps, and gave him a dose of the cowpox germs from Sarah	
	Nelmes. Six weeks later, he gave the boy some smallpox germs. 'No disease	
	followed.'	
	He called his technique 'vaccination' because the Latin word 'vaccinus' means	
	from a cow. Unfortunately, the Royal Society rejected his findings – probably	
	due to him being a country doctor and he could not prove how it worked	
		Is it right to test vaccines on animals?

Luckily Parliament decided to give Jenner £30,000 to open a vaccination clinic. Opposition to Jenner: • Jenner could not explain how the vaccination worked • Many doctors were not willing to stop inoculations as it made so much money • People were against change • Jenner was not a fashionable London doctor • In London, William Woodville and George Pearson used Jenner method using contaminated needles and then suggested it didn't work! Pasteur Why was Jenner's discovery so One theory was spontaneous generation, the idea that microbes could appear important? as if by magic when something rotted. What could Jenner not prove? In 1857 Pasteur was asked to find out why wine went sour. He concluded that germs were harming the liquid and they did the same to milk and beer Pasteur then looked for ways to solve the problem. He killed the bacteria by gently heating the liquid. He used the same technique with beer and milk. He had invented a process called pasteurisation. It was a huge step forward in keeping liquids free from germs and safe to drink. Everything Pasteur said was correct. He had proved that germs did not come alive on their own. Germs could only be found in places they could reach. The theory of spontaneous generation was dead. In 1861 he published his germ theory. In 1879, Pasteur was investigating chicken cholera, a disease that was crippling the French poultry industry. By accident, his assistant Charles Chamberland, used an old weakened sample of the disease microbes. When the chickens were injected, they survived. The chickens were then injected with fresh strong germs and again survived. Pasteur and his team had shown a new way to create vaccines in the lab.

What did Pasteur discover ? How is it linked with Robet Koch?	They had also proved that weakened strains of a disease could help develop immunity. Robet Koch Koch found a way of staining and growing the germ he thought was responsible for causing anthrax. He then proved this by injecting the germ into mice and making them ill Using similar methods, Koch was able to identify the germs that caused the deadly diseases cholera and tuberculosis. It was Pasteur and his team however which came up with the vaccines for both. Both Pasteur and Koch saw each other as rivals. Through their scientific discoveries, they competed in honour of their countries. They both however were not able to kill the specific germs they Identified in the body Koch proved specific germs (bacterium) caused specific diseases. He also showed how bacterium could be retrieved from dead animals and grown again. He did this using agar (a seaweed extract which encouraged them to grow). As well as staining germs, Koch developed ways of photographing microbes so	Why do some diseases still spread around the world even though we have known about them for hundreds of years?
Why would some people reject Louis Pasteur's ideas? What ideas did they follow?	that other scientists could study them in detail and find them in samples. How were these new ideas received in Britain? Charlton Bastion had written many articles in the 1860's supporting spontaneous generation. He believed that infection occurred spontaneously and it was a chemical reaction that produced poisons. John Tyndall publicly defended Pasteur's Germ Theory lectured on both dust and disease with experiments on light that showed tiny particles in the air.	

	Magic Bullets	
How did Pasteur and Koch help lead to the development of magic bullets?	Magic bullets were the name first given to chemical drugs that killed bacteria in the body. The posh name for these drugs is sulphonamides. In 1909 Paul Ehrlich, a member of Koch's team, reasoned that, if certain dyes could stain bacteria, perhaps certain chemicals could kill them. He discovered Salvarsan (606) which killed the bacteria causing syphilis	
	Penicillin	
What was a magic bullet and why was it incredibly important?	Penicillin is an antibiotic. 'Antibiotic' literally means 'against life' – but antibiotics only kill life that is harmful to living creatures, i.e. bacteria.	
	By the 1920s, one nasty germ named staphylococcus remained undefeated by any magic bullet. It was a highly resistant form of bacteria that had over 30,000 different strains and it caused a wide range of illnesses.	
	A bacteriologist named Alexander Fleming was determined to find a cure against this bacteria, having observed first-hand the ill effects on wounded soldiers during World War 1.	Are we reliant on too many drugs to make use better? What could be the consequences?
	Fleming was beginning to conduct experiments on the hard to kill staphylococcus germs. Whilst one holiday, he left the window of his laboratory open and left several plates of the germs on a bench.	
	When he returned, he noticed that mould which was growing in one of the dishes had killed the staphylococcus germs. Upon investigation, he found the sample of the mould to be penicillin, which had been grown in a room below his.	
	Fleming decided that penicillin was mistakenly a natural antiseptic and not an antibiotic. He wrote up his findings in a report and sent it to a medical journal. He gradually lost interest in his discovery.	
	It was the Second World War which finally brought about the successful development of penicillin. In the 1930s two Oxford scientists, Howard Florey	

and Ernst Chain, became interested in Fleming's 1929 paper on penicillin. In Who was Fleming/ and why was he 1939 they assembled a team of pathologists, chemists and biochemists, and important? three days after the outbreak of war Florey asked the British government for money to fund the team's research into penicillin. A breakthrough was made by Howard Florey and Ernst Chain in Oxford between 1938-40. They received a government grant of £25 and devised a freeze-drying technique. At first, they struggled to produce in in large amounts, and used every container they could find in their laboratory. Their first clinical trial was on a policeman named Albert Alexander. He had been scratched by a rose bush and had a nasty infection. When injected with penicillin, the infection began to clear up. After five days, the penicillin ran out and the patient died. However, they had proved the amazing properties of penicillin. The outbreak of World War 2 should have secured more funding, but the British Government and drug companies in Britain weren't interested. Should the UK government help poorer countries around the world fund the vaccines Their first clinical trial was on a policeman named Albert Alexander. He had that help keep people safe? been scratched by a rose bush and had a nasty infection. When injected with penicillin, the infection began to clear up. After five days, the penicillin ran out and the patient died. However, they had proved the amazing properties of penicillin. The outbreak of World War 2 should have secured more funding, but the British Government and drug companies in Britain weren't interested. Who had the greater impact? Fleming or Vaccines: In 1954 in Britain the first free vaccine was offered for diptheria, Florey and Chain? whooping cough and tetanus (the triple vaccine). In the following year, free vaccines were offered for polio and in 1969 rubella (German measles). In 1980 after a global vaccination campaign, smallpox was declared eradicated so far How did this work develop on from Pasteur? the only human disease where this has been possible **SURGERY**

	Galen	
What theories did Galen have?	At the time: Galen based most of his information about anatomy on what he saw when he dissected the bodies of animals. This led him to make mistakes. For example, he thought that blood was created in the liver. He realised that it flowed round the body, but said it was burned up as fuel for the muscles. At the time: Although Galen said observation and dissection were important, he strongly promoted his books which he said contained everything there was to know about the human body.	
	Islamic Medicine	
Why was Islamic medicine more advanced than Christian medicine?	Ibn Al Nafis- Challenged Galen about the heart. He said there were no invisible holes. His ideas were ignored for hundreds of years. Surgery- Medieval times	
What did Galen suggest about the heart?	Doctors and beliefs: • Doctors would use urine charts to diagnose patients, they test the colour, smell and even taste of the urine. • They still believed in Hippocrates and Galen and the theory of opposites and so would use methods such as bleeding to balance the humours. • Doctors were also superstitious and a zodiac chart (linked to the planets) showed the doctor when to avoid treating different parts of the body. Doctors and treatments: • Doctors tended to concentrate on two things: they	Do people get more recognised than others for discoveries? Why do you think this may be the case?
	took the pulse and noted the colour of the patient's urine. • Doctors used the theory of the four humours regularly. This involved bloodletting, vomiting and purging. • Bleeding charts told the surgeon where to take blood from. Bleeding charts told the surgeon where to take blood from. Warm cups and leeches were used to draw the blood out. Rich people were bled regularly to avoid disease – it was thought to 'clear the mind and strengthen. • Home herbal remedies included Foxglove (used for heart conditions today), Garlic (kills bacteria), Poppy and willow (painkillers). Antibiotics such as onion and wine were used by Hugh of Lucca and his son Theodoric	

	1	
Why could some people not go to a doctor during this period?	For most people, the local wise woman or man offered traditional remedies for illness. They used a mixture of natural herbal remedies, first aid and supernatural cures. Most of their knowledge was passed down by word of mouth In markets or fairs there would be may people offering herbal remedies. Some would pull teeth, mend dislocated limbs or even set a fracture in splints. However many were bogus doctors who claimed they could cure you of the plague, stomach cramps and other illness. They were called quacks.	
	If you had a little money you could visit the local 'barber' surgeon – they could amputate, remove tumours as well as dealing with dislocations. Some, such as Guy de Chauliac wrote a 7-volume book on surgery.	
	Barber surgeons were lower class medical tradesmen. They were not trained and learned from experience. However as there was not a lot of money to be made from surgery – they also cut hair.	
Who work did Barber surgeons follow?	Cauterisation was commonly used for wounds. This was done with a heated iron to stop the flow of blood and then poring boiling oil into the wound.	Should all healthcare around the world be free? Or should we pay?
	A surgeon's tools included saws for amputation, arrow pullers, cautery irons and bloodletting knives.	iree: or should we pay:
	Successes: Amputating parts of the body for breast cancer, bladder stones or haemorrhoids were successful in the Middle Ages	
	Trepanning involved drilling a hole in the head to remove demons in the brain (for epilepsy)	
	The Renaissance is a term that describes a period of history where there was a rebirth of learning.	
	Andreas Vesalius: Born in Belgium in 1514., he studied medicine in France and Italy where he ransacked cemeteries and gibbets for bones and for bodies to	

What did Galen about the body? What did he dissect?

Why would the church be upset with Vesalius' ideas?

What jobs do Barber surgeons do?

dissect to understand the anatomy of the body. He came to realise through a series of experiments and dissections that the famous doctor Galen could be wrong, when he discovered that the great man was mistaken about there being two bones in the jaw, and about how muscles were attached to the bone. He became Professor of Medicine at Padua University. He said that medical students should perform dissections for themselves, stating that:"... our true book of the human body is man himself."

In 1543, he published 'Fabric of the Human Body' (with high-quality annotated illustrations). This allowed scholars and medics the chance to read and question Galen, never done before. He was helped by the fact that the Church was fragmenting and losing its power in Europe due to new ideas about Protestantism

Ambroise Paré

Paré began his career as an apprentice to his brother, a barber surgeon. In 1536, he became a surgeon in the French army, where he worked for 20 years. During this time, he developed his ideas about surgery.

Paré changed ideas about surgery. Before Paré, wounds were treated by pouring boiling oil into them. To stop the bleeding they were cauterized, ie sealed with a red-hot iron. During one battle, supplies of cautery oil ran out. Instead, Paré used an ointment of egg yolk, oil of roses and turpentine which had been used in Roman times. He found that the wounds treated with this mixture healed better than those treated with boiling oil.

He introduced the crow's beak' clamp to halt the bleeding and then used ligatures, ie silk threads to tie blood vessels Unfortunately, ligatures did not reduce the death rate. Dirty surgeons' hands and contaminated ligatures caused infections in the wounds being treated. He also began making false limbs for soldiers. The first edition of Pare's 'Collected Works' was published in 1575 and was widely read in Britain. William Clowes, surgeon to Queen Elizabeth I greatly admired Paré and adopted his techniques. He also agreed with Paré that that gunshot wounds were not poisonous.

	William Harvey:	
	Born in 1578 in Kent, he studied medicine in Cambridge and Padua, Italy. He then worked as a doctor in London and then as a lecturer in anatomy.	
What did Galen suggest about blood and where it was made?	Many doctors still believed in Galen's idea that new blood was constantly being made in the liver to replace the blood that was burnt up in the body, in the same way as wood is burnt by fire. No one had as yet proved exactly how blood moved around the body.	
	Harvey showed that blood flows around the body is carried away from the heart by the arteries and returns to the heart in veins. He proved that the heart acts as a pump, recirculating the blood and that blood does not burn up so no organ is needed to manufacture new blood.	
Who else published books in the Renaissance?	In 1628 he published 'An Anatomical Account of the Motion of the Heart and Blood in Animals.' Despite some criticisms of Harvey being a 'circulator' or quack, understanding the circulation of the blood was a vital stage in the development of surgery and in the diagnosis of illness	
	Opposition	
	Vesalius: Vesalius faced heavy criticism for daring to say that Galen was wrong. He had to leave his job in Padua but later became a doctor for the Emperor Charles V. He paved the way for others to conduct proper dissections and learn more about the body.	
	Paré: Although Paré's ideas and treatments improved surgery, they were slow to catch on. Cauterising wounds was still common place amongst surgeons for example.	
	Harvey: Harvey too received heavy criticism as he contradicted Galen. Harvey was called a 'circulator' – a quack who tricked people about the body's blood.	

	However many modern medical treatments would not work today unless	
	blood circulation was understood such as blood tests, blood transfusions or	
	heart transplants.	
	John Hunter	
	John Hanter	
	He soon became skilled in precise dissection and anatomical research. His	
Who also rabbad grayes and was similar	·	
Who else robbed graves and was similar	other job was to rob graves at night for his brother's school.	
to John Hunter?		
	He was appointed Surgeon to King George and Surgeon General to the army in	
	1790. Although he earned large amounts of money during his life, he used	
	most of it for research and for his specimen collection. He died in debt and	
	poverty in 1793.	
	: Hunter set up a large practice and trained hundreds of other surgeons in his	
	scientific approach. Many young surgeons he trained became great medical	
	teachers and professors in the teaching hospitals in nineteenth century Britain	
	and America. For example Edward Jenner (who discovered the vaccination for	
	smallpox) trained with him and became a good friend.	
	Hunter collected a huge collection of anatomical specimens. He preserved	
	3000 stuffed or dried animals, plants, fossils, diseased organs and other body	
	parts.	
	parts.	
	All Huntor's writings were based on his observations. His books included, 'The	
	All Hunter's writings were based on his observations. His books included: 'The	
	natural History of the teeth' (1771), 'On Venereal Disease' (1786) which was	
What allowed John Hunter to publish his	translated into several languages and was widely read and 'Blood inflammation	
books?	and gunshot wounds' (which explained that these wounds were not poisoned	
	and the area around the wound did not need to be cut out)	
	Hunter was an early promoter of careful observation and the use of scientific	
	method in surgeries. In 1785 a man was admitted to St George's hospital with	
	a lump on his knee joint (aneurysm). The usual treatment was to amputate the	
	leg above the throbbing tumour. His previous dissections led him to believe if	
	the blood supply was restricted above the lump then it would encourage new	
	The blood supply was restricted above the lump then it would encourage new	

blood vessels to develop and bypass the damaged area. He cut into the man's Should we trust the science and findings of legs at several points and tied off the artery to restrict the blood flow above people who are professionals? Why do people the lump. Six weeks later the man walked out of hospital and he had saved his ignore them? leg. Surgery in 19th century Nitrous Oxide: In 1795. Humphrey Davy experimented with inhaling nitrous What did they use to put people to sleep oxide. In 1800, he published an account of how it made him laugh and feel previously? giddy and relaxed. It became a fairground novelty; people paid to inhale it and then fell about laughing hysterically, much to the amusement of the crowd. It was not until 1844 that an American dentist Horace Wells saw it as an anaesthetic and removed one of his own teeth. He failed to convince other doctors to use it however Ether: In 1846 William Morton helped give a public demonstration in a Boston hospital using ether to extract a tooth. Robert Liston was quick to try it in England. He called it a 'Yankee dodge' and used it for a leg amputation. An effective anaesthetic had arrived at last. However, it did have its drawbacks. It was difficult to inhale, it caused vomiting and it was highly flammable. This was a problem as many patients chose to have their operations at home in front of a fire rather than choose an infection ridden hospital. Chloroform: There was still a need for a safe and effective anaesthetic. The breakthrough came in 1847 when a Scottish doctor James Simpson discovered chloroform. Simpson and his friends had been testing a number of different What factor helped Pare' discover oil substances until they came across chloroform which knocked them out. that is similar to Chloroform discovery? Problems came with the death of a young woman, Hannah Greener when she took it during an operation to remove a toenail. Objections were overcome when Queen Victoria used it with the birth of her son, Prince Leopold and after Dr John Snow worked out the correct quantities to administer to patients. Lister Lister believed that infection only happened when the skin was broken and microbes could get in and start an infection. He decided to experiment using

Who else tested his ideas on a young boy?	carbolic on a young boy, Jamie Greenlees, who had been run over by a cart which had fractured his leg. The bones were sticking out through the skin of his leg. The common practice was to amputate, but Lister set the bones and used dressings soaked in carbolic acid. The dressings remained for four days; when removed Lister was impressed to see the skin was healing. He replaced the dressings using less carbolic to avoid irritation to the skin. After six weeks, he walked out of the hospital.	
How did Simpson and Lister help improve surgery?	Lister next turned his attention to the Operating Theatre. His method was to spray everything in carbolic from the surgeon's hand, wound, instruments, bandages, ligatures and dressings in an operation. In March 1867, Lister published his results. 11 patients had compound fractures none of whom died of infection. Between 1864-1870, death rates fell from 46% to 15% after Lister used his antiseptic method	
	Doctors at the time still did not accept Pasteur's Germ Theory. Carbolic was very unpleasant to use as people's hands dried up and cracked and it irritated the lungs making it difficult to breathe. It also took a long time to prepare his carbolic methods. However, Lister lectured doctors about his techniques and credited Pasteur's Germ Theory. He was convinced infection was caused by microbes in the air; the cause of sepsis came from outside the body and not from spontaneous generation	
	Blood loss	
	Before 1901, early blood transfusions were often unsuccessful and more often than not fatal in humans.	
What were the main issues with surgery?	In 1901, Karl Landsteiner discovered the existence of different blood groups which helped doctors to work out that a transfusion only worked if the donor's blood type matched the receiver.	
	WW1	
	In 1895, Wilhelm Rontgen discovered x rays which could pass through black paper, wood and flesh. Within months x ray machines were introduced which	

_		
	proved to be vital in WWI to locate shrapnel and bullets lodged deep inside the body	
	During World War 1, Harold Gillies a London based army doctor developed	
	plastic surgery for wounded soldiers. He set up a specialist unit to graft skin	
	and treat men suffering from severe facial wounds. Queen's hospital in Kent	
Who else worked during a battlefield and made discoveries in surgery?	opened in 1917 and by 1921 provided over 1000 beds for soldiers with facial wounds.	
	Radiation therapy or radiotherapy was introduced by Marie Curie in 1902, who noticed the skin on their hands was being burned by the material they were	
	using. This is used today (together with chemotherapy) to diagnose or treat	
	cancers often reducing the need for surgery	Are there ever any benefits to war?
	Transplants: In 1967 Dr Christian Barnard, a South African heart surgeon	
	performed the first heart transplant. The patient lived for 18 days.	
	Keyhole surgery and MRI scans: These have helped doctors and surgeons to	
What technique for surgery was used during the medieval period?	develop new techniques for identifying illnesses and operating on them without having to without having to make large incisions in the skin.	Do women in STEM get the same
during the medieval period:	without having to without having to make large metalons in the skin.	opportunities as men? Or is there still an issue
	Public Health	with sexism?
	Medieval period	
	Towns in general with some exceptions were dirty places.	
	Open drains, overflowing cesspits, polluted drinking water were common.	
What did people know about disease in	However some medieval town councils tried their best to keep the	
the medieval times?	environment clean.	
	Lots of problems: • Some towns had public baths called stewes where people	
	bathed together in large wooden tubs. • No one expected local authorities to organise the removal of rubbish. • Leather tanners used dangerous chemicals	
	Torganise the removal of rubbish Leather tainlers asea dangerous chemicals	

which they then dumped into the rivers • No one expected kings or the central government to make laws about public health or raise taxes so improvements were paid for by rich individuals • Butchers left rotting meat and waste Are there places in the world that have similar products in the streets. • Cesspits were usually built next to drinking wells and conditions to medieval England? Is this right often the sewerage leaked into them • People could buy water from water considering we are looking at 700 years ago? sellers but it was often taken from polluted rivers. • Councillors knew that improvements would be expensive and did not want to become unpopular by increasing local taxes • Often nothing was done until there was a serious outbreak of disease in a town. Some solutions: • Local authorities in some towns paid for piped water supplies and sewer systems. • In the 1300s in London lead pipes brought water from the River Tyburn to conduits in the streets. • People could pay to have their cesspits emptied. • Butchers were thrown in the pillory if they sold rotten meat. Why did the Black Death spread so Poor public health led to the Black Death and the Plague in the Renaissance. Many believed it was caused by Miamsa (Bad air) rapidly? Florence Nightingale Until Florence Nightingale came along, nurses and nursing had a terrible What jobs did women have in the reputation. They were seen as drunks and untrained medieval period? In 1854, war broke out between Britain and Russia in the Crimea. Around 100,000 British soldiers were killed or wounded but many more fell ill through typhus and other diseases. Reports got back to Britain about the dreadful conditions in the army hospitals. The man in charge of the army knew Florence and asked her to take control of Do we stereotype people into jobs? Women nursing the troops at the main army hospital in Scutari as nurses? Is this right? Florence took a group of 38 nurses with her to the war zone. She was horrified at the conditions. There were no toilet facilities, no cleaning basins, soap, mops, towels or cleaning materials

What was towns like in the medieval period?	Florence wrote home to the British Government straightaway. As well as describing the conditions, she ordered all sorts of cleaning materials. She even offered to pay for some herself. Within six months, she reduced the death rate in the hospital from 40% to 2%. Even the doctors must have been impressed with the increased survival rate amongst the wounded soldiers She raised £44,000 to set up Britain's first nurse training school at St Thomas' Hospital. She aimed to turn nursing into the respectable profession it is today by training women and taking control away from the men Public Health in 19 th century Public Health, the health and well being of ordinary men, women and children, was in a poor state in the 1800's. Overcrowding was a big problem. Houses were built close together, cheaply and families lived in small spaces usually in a single room. Most houses had no bathrooms and instead shared an outside toilet, called a privy. Each privy or toilet was built above a cesspit which was collected by nightmen, who threw the waste into the rivers or on the streets The average age of death for a working man was about 30 years of age. In some places such as Liverpool, it was 15! In Manchester, one in every five children died before their first birthday and one in three died before they reached the age of five. The British Government was more concerned about its Empire and its wealth than helping the poor in the cities The British Government adopted a laissez-faire approach – it wasn't their problem.	Should it be the government responsibility to look after the people in the country? Or is it the responsibility of the family to provide?
---	---	---

		I
Did the government ever get involved in sorting issues out in the previous	Edwin Chadwick In 1842, social reformer Edwin Chadwick produced a report on poverty and health. It showed that living conditions in towns were worse	
periods?	for people's health than in the countryside. His report suggested the following	
	things to the Government:	
	The Government should pass laws for proper drainage and sewerage systems •	
	All improvements should be funded by local taxes • All waste and sewerage in London should be pumped into the Thames • Disease was spread by poor	
	sanitation and bad air (miasmas) • In 1848, six years after his report a terrible	
	outbreak of cholera which killed 53,000 people forced the government to act	
	1848 Public Health Act	
How did Edwin Chadwick help improve public health?	• This set up a Central Board of Health with Chadwick as a member. • It allowed towns to set up their own local boards of health as long as taxpayers	
public ficaltif:	agreed. • Councils were allowed to appoint Medical Officers of Health to	
	oversee public health. • Therefore the Public Health Act was ineffective.	
	1875 Public Health Act • Eventually (after further outbreaks of cholera) the	
	Government passed another Public Health Act, but this time it was	
	compulsory. • Local councils forced to provide clean water, public toilets and proper drains and sewers. • Councils forced to appoint a Medical Officer of	
	Health. • Therefore the Public Health Act was effective.	
	Dr John Snow	Why does Cholera still exist in the world when
	John Snow had been an apprentice surgeon at 14 before becoming a fully	we have known about it for so long? Is this right?
What is the differences between the	qualified doctor as an adult. He was a strong believer in evidence-based	
public health acts?	theories and mocked other doctors who believed in miasma (which didn't win	
	him much support from other doctors).	
	Cholera was one of the biggest killers at this time and Snow believed it was	
	caused by dirty water. • To prove this, he investigated the 700 deaths around Broad Street in Soho, London and wrote a report about his findings. • Using a	
	colour coded map to plot all the deaths, he concluded that all the victims used	
How did public health in towns allow	the same water pump. He made sure the authorities removed the pump	
diseases to spread?	handle and the cholera outbreak stopped. • Snow's work received little	

What year was germ theory?	attention at first, especially as he could not prove that water carried the cholera germ. • Most people still believed in the miasma theory of disease and he had to wait until Pasteur's Germ Theory to get the recognition he deserved	
Why did Chadwick actually lead to disease spreading more?	In the summer of 1858, a heatwave caused the filthy river Thames to smell worse than ever. The smell was so bad, politicians had to meet in Oxford instead of the Houses of Parliament. Known as the 'Great Stink', this was the final straw for the Government and work began on the London sewage system. MP's called on the engineering genius of Joseph Bazalgette to help them who had spent his early career in the railway industry	What current issues face our sewer systems? Are they fit for purpose? Fatbergs
	• The beauty of Bazalgette's design was that it used the gravity and the slope of the London basin to get the sewers to flow downstream to the sea. • At Crossness he built a pumping station where pumps, the largest ever made at the time, pumped the sewage up to the level of the Thames; at high tide it was released into the river and the river did the rest, taking it out to sea. • Bazalgette was given £3 million (£1 billion today) in 1858 and told to start immediately. • Using 318 million bricks, he built 83 miles of main sewers, 1100 miles of connecting sewers for each street, removing 420 million gallons of sewage a day. • They took 10 years to build and he doubled the capacity of the sewers to cope with a growth in the population. (Genius!)	
How did Bazalgette's sewers help London?	In 1899, a large-scale recruitment drive took place to find men for the army to fight in the Boer war in South Africa, at that time part of the British Empire. Army chiefs were shocked by the fact that 40 out of every 100 young men who volunteered to fight were unfit to be soldiers – and the entry standards weren't very high! The Government of the day realized that reforms were needed to make Britain	
	fitter and healthier to fight wars abroad and to keep the British Empire intact Charles Booth	

• In 1886 Charles Booth had produced a report called, Life and Labour of the People in London. • Charles Booth's survey of London was the most ambitious social survey ever conducted. Starting in 1886, it took Booth 17 years to visit every one of its tens of thousands of streets. • He produced a series of stunning social maps, which colour-coded each of London's streets according to the class of its residents - from yellow for the Servant Keepers, all the way down to black, for Vicious and Semi-Criminal. • He came to the conclusion that 30 per cent of people in London lived in poverty

What do we class as poverty in England today? Does poverty differ around the world or is it all on one scale?

Seebohm Rowntree

- Seebohm Rowntree was a member of the wealthy Rowntree's sweets family.
- Rowntree conducted research in York between 1899 and 1901. His report was called Poverty, A Study of Town Life. He reached the conclusion that 30 per cent of people in York lived in poverty and that they needed to earn 21 shillings per week to stay out of poverty. If they earned less than this, they were living below the 'Poverty Line'. He claimed that people could not help being poor and that large families helped to cause poverty.

The liberal reforms

What attitude did the liberal reforms end?

the liberal reforms?

How did Booth and Rowntree influence

The scale of the problem – life expectancy was 45. The richest 10% also owned 92% of the country's wealth. • Increasing information about poverty from charities, civil servants and local authorities • National efficiency: A healthy army was needed. For the Boer War, 40% of volunteers failed medical inspection • National efficiency: An effective workforce was needed—Britain's position as the world's leading industrial power was being challenged by Germany and the USA. • Brilliant individuals like David Lloyd George and Winston Churchill • Pressure from social reformers like Booth and Rowntree • New Liberalism described a new attitude that recognised that being poor was not always the fault of the poor. The Government had to do something.

Free School Meals, 1906

• Local councils were given powers to give free meals to children from poor families. • By 1914, over 150,000 children were having a daily free meal, every day. • In 1914, the Government made it compulsory for authorities to provide these meals.

What reforms do you think could be created to help create a better modern Britain?

School Medical Inspections, 1907

• Doctors and nurses went into schools to provide free compulsory medical checks for children. • They could recommend any treatment that was necessary. • Any treatment required by the children had to be paid for by the parents (until 1912)

Old Age Pensions, 1908

• Weekly pensions were provided by the Government for the elderly and became very popular. • 5s per week to single people over 70, 7s 6d to married couples. • Full amounts were only paid to those who earned less than £21 per year. • by the children had to be paid for by the parents (until 1912).

Children's Act, 1908

• Children were now protected by law against cruelty from their parents. Children's homes to be registered and inspected. Children under 14 who committed crimes were now not to be sent to adult prisons. • Criminal children were to be sent to borstals, specially built to cope with young offenders • Children under 14 not to be allowed into pubs and cigarettes or alcohol not to be sold to children under 16

Labour Exchanges Act, 1909

• These Job centres meant that the unemployed could go to an exchange to look for a job • By 1913 there were 430 job centres (exchanges) in Britain

National Insurance Act, 1911

• All workers had to join and paid 4d for insurance stamps which they stuck on a special card. • Employers gave 3d per worker in the scheme. The Government gave 2d for each worker in the scheme. • If a worker in the

	scheme fell ill, they got sick pay of 10s per week for 13 weeks, then 5s per week for a further 13 week in the year. • Workers in the scheme could have free medical care	
	PHARMACEUTICAL INDUSTRY	
What were the liberal reforms and how did they help Britain?	Since 1900 big pharmaceutical companies have grown such as Boots, Welcome and Beechams. Their success has been built on providing 'all cure' pills such as aspirin (painkiller / fever) and paracetamol. In fact, the ingredients of aspirin come from Willow bark which the Ancient Egyptians used	Should companies be held accountable if they cut corners? How should they be held
What people used to provide fake treatments that weren't tested?	However, the industry has faced sever problems. In the 1950s the drug thalidomide was released without thorough testing. It was used as a sleeping pill and women with morning sickness, but it had severe side effects as children born had under developed limbs. Rare diseases also go unresearched as common diseases will make the companies a lot of money.	accountable?
What do we know about the NHS? What	The NHS	
services does it provide?	In 1942, William Beveridge produced a report, called 'The Beveridge Report'. He said that people had a right to be free of the five giants that ruined lives: Disease, want (need), ignorance, Idleness and squalor (poor living conditions.	Is free health care sustainable or should the NHS think about introducing an insurance
How has medicine changed from the medieval period to the 21st century?	The new Labour Government led by Clement Atlee kept its promise to introduce many of Beveridge's ideas.: 1. The National Health Service was set	based scheme.
,	up in 1948 to provide health care for everyone. This made all medical treatment – doctors, hospitals, ambulances, dentists and opticians free to all who wanted it. 2. A weekly family allowance payment was introduced to help with childcare costs 3. The school leaving age was raised to 15 to give a greater chance of a decent education and more free university places were created! 4. The Government also continued its slum clearance programme as large areas of poor-quality housing were pulled down and new homes were built. Twelve	Should people be happy to pay more taxes to fund the NHS?
	new towns were created and by 1948, 280,000 council homes were being built each year.	

Popularity: Once the NHS was introduced, it did prove to be popular with most people. 95% of all of the medical profession joined the NHS. In fact, the NHS proved to be too popular as it quickly found that its resources were being used up. From its earliest days, the NHS seemed to be short of money. Annual sums put aside for treatment such as dental surgery and glasses were quickly used up. The £2 million put aside to pay for free spectacles over the first nine months of the NHS went in six weeks. The government had estimated that the NHS would cost £140 million a year by 1950. In fact, by 1950 the NHS was costing £358 million. In 2015 by contrast, the bill was £116 billion. Impact: The NHS is rarely out of the news mainly due to its problems: • Waiting lists seem to be getting longer, doctors and nurses are over-worked and they are always crisis points in the colder weather. • The main problem is money – people are living longer and modern drugs are more expensive. • However, the health of the nation has improved significantly. Life expectancy for men has risen from 64 to 79 and for women, 66 to 83 since 1948, although this is affected by your wealth • The guest to improve the nations health goes unabated with healthy eating campaigns, the sugar tax and of course banning smoking from public places Coronavirus





