Meden School Curriculum Planning							
Subject	History	Year Group	9	Sequence No.	4	Topic	Revolution in medicine

Retrieval	Core Knowledge	Student Thinking
What do teachers need <b>retrieve</b> from students before they start teaching <b>new content</b> ?	What <b>specific ambitious knowledge</b> 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!'
How have Power, Oppression and voice influenced society throughout history? How do you think it may have influenced medicine?	Lesson 1  Factors that affect people's health:  Local and national governments Beliefs and attitudes Wealth and poverty War Science and Technology Urbanisation and growth of towns  The Middle Ages saw some medical progress, including the setting up of universities, and some regress (decline), due partly to the end of the Roman Empire, when much of the knowledge of the ancient civilizations was lost.  In the Middle Ages the church controlled those who were allowed to practise medicine and new ideas were not encouraged.  Lesson 2  Hippocrates came up with the Hippocratic oath which means doctors will obey rules of behaviour in their professional lives.	Through the knowledge learnt in this topic students will make cross curricular links to RE, PD and Science. They will make links between past events to present issues and debates. They will explore power and influence in medicine. They will do this through the following topics:  • What factors impact people's health in the 21st century?  • Is healthcare the same all over the world?  • What ideas from Hippocrates are still used today? How can these ideas help patients?  • Is it right to use animals to learn more about disease and illness  • What do people believe about disease in the 21st century?  • How is the Black Death similar to the impact of the Coronavirus?  • Who cares for the sick in the UK today?  • Does the church still have influence in society today?  • Is Islamic medicine seen at the forefront of technology in the 21st century?

Who influenced people's ideas on Hippocrates and Galen?

Clinical observation allow healthcare professionals to be aware of the health status of patients and allow tracking of patients health status. Checking their temperature etc.

The four humours was Hippocrates theory created by Hippocrates to balance the body. It moved away from supernatural treatments such as prayer. These are called the 4 humours blood, phlegm(snot), yellow bile(urine) and black bile(poo).

Galen- took on Hippocrates method of the 4 humours and developed it into the theory of opposites. This means that if a diseases was caused by cold, He would use heat to treat the disease such as hot red peppers.

Galen liked to dissect animals- mainly monkeys, which were most like humans and pigs. He believed that the brain controlled the voice and proved this by vivisecting a pig. He also proved that the arteries and veins carried blood around the body. He did make mistakes though he believed the jawbone was made of 2 bones and that blood was made in the liver and used up as fuel in the muscles. The church like his ideas as it fitted with their ideas and so would not let people question him.

What did people believe about disease?

The most common belief was that God sent illness such as the Black Death to punish people for their sins. The Anglo-Saxons also believed that elves and spirits shot invisible arrows to cause everyday illnesses such as headaches.

A common sense explanation was that bad air caused illness. At the time of the Black Death many people said that the earthquakes had infected the air. Some people did link the bad air and filth in the streets but could not explain the link. They also believed worms caused illness.

The church made sure that scholars of medicine learned the works of Galen as his ideas fitted with the Christian belief that God created human bodies and made them perfect.

- What does the treatment of Ibn-Al-Nafis suggest about views towards other races? Are these views still held in society today?
- The Plague still exists in parts of the world such as Madagascar. Why do you think this is the case?
- Does sexism in medicine still exist in society today?
- Are fake treatments still on offer today? Why do you think this is the case?
- What similarities are there between the Plague and the Coronavirus pandemic?
- What are the different vaccination views in society today?
- Why are people often scared of vaccination?
- Is racism and sexism still an issue in the workplace today?
- What other vaccines could help the world and illness in the 21<sup>st</sup> century?
- How can Semmelweis's discovery help society in the 21<sup>st</sup> century and especially during the coronavirus pandemic?

	The church outlawed dissection.  This meant medieval doctors couldn't discover anything more about the anatomy for themselves. The students were not allowed to dissect bodies they had to watch the teacher's assistant dissect.	
	Lesson 3	
	What role did monasteries and the church play in caring for the sick?	
What ideas would monasteries use to help cure people?	The Roman Catholic church was an extremely powerful organisation in medieval Europe. It dominated the way people studied and thought about medicine.	
	In Medieval society was the Church was central to most people's lives so its attitudes to medicine had a profound influence on medical progress and developments.	
	The Church encouraged people to believe that disease was a punishment from God, rather than having a natural cause. This prevented people form trying to find cures for disease= if disease was a punishment from God- prayer and repentance were key.	
	The churches influence over medicine meant that there was very little change in ideas about the cause of disease until the Renaissance as it was so influential, people were unable to question them.	
	Roger Bacon a Monk and lecturer of Oxford University was arrested in 1277 for spreading anti-Church views after questioning the Church's stance on Galen.	
	Looking after the sick was an important part of the work of the Christian church and this led to many hospitals being founded By 1400 there were over 500 hospitals although most only had 5 or 6 beds. Most hospitals were like care homes they would provide food, rest, and most importantly prayer.	
	Nursing care was provided by nuns who had a good knowledge of herbal and	

other remedies.

The monks and nuns who lived in monasteries were usually wealthy enough to ensure a good standard of hygiene. New monasteries were located close to supplies of fresh water. In richer monasteries water was piped from building to building. As part of the standard design of a monastery, an elaborate communal lavatory, was built next to a stream which could carry away the waste. Monastic records show that monks and nuns washed regularly and had baths five or six times a year. What did the Christian church teach Lesson 4 about medicine? How did they control medicine? Islamic medicine Doctors were well respected Doctors were knowledgeable about herbal remedies Doctors were quite scientific in their approach Medicine was organised with different types of healers. Avicenna (also known as Ibn Sina) Wrote a one million word book called the Canon of Medicine Contained all ancient and Muslim medical knowledge at the time Listed the medical properties of 760 different drugs Contained chapters on medical problems such as obesity and anorexia LONG TERM IMPACT- This became the standard medical textbook to train doctors in the West until the 17th century Rhazes (also known as Al-Razi) Stressed the need for careful observation of patients Found the difference between Measles and Smallpox for the first time. He wrote over 150 books Challenged Galen (although he did mostly follow his ideas) in a book called Doubts About Galen IBN AL NAFIS- He investigated the anatomy of the heart and he didn't agree with Galen.

He stated there were no holes or channels in the heart. He thought the blood moved from the heart to the lungs then back to the heart and the circulates around the body. Unfortunately nobody in Europe read about his work until the 1600s! What was the impact of the Black Death CALIPH- The ruler of the Islamic world from what you studied in year 7? BAGHDAD- This was the capital city of the Islamic world BIMARISTAN- These were Islamic hospitals where everyone could be treated regardless of wealth or religion. What would have been one of the main beliefs as to why the Black Death Lesson 5 happened from what you have previously learnt? The Black Death The Black Death arrived in England in 1348. It was brought by ships that traded across the Mediterranean and other parts of Europe brought it with them. Around 40% of the population died. Bubonic plague made people suddenly feel very cold and tired. Painful swellings (buboes) appeared in their armpits and groin and small blisters all over their bodies. Followed by high fever and severe headaches. Many lingered, unconscious for days before dying. Spread by fleas. Pneumonic plague attacked victim's lungs causing breathing problems. Victims cough up blood and died rapidly. Spread by people breathing or What ideas would Physician follow? coughing germs onto on another. Lesson 6 Why would a Barber Surgeon not dissect bodies? Renaissance healers

Lady of the manor- Women still played a major part in everyday medicine.

Wealthy ladies often provided care for local families.

Her remedies would have been used for generations by her family. They we

Her remedies would have been used for generations by her family. They were mostly herbal remedies.

Quack doctors- Someone who sells medicine that do not work.

Physician- These were University-trained and still accepted Hippocrates theory that illness was caused by an imbalance in the body's humours.

Barber surgeons- Barber-surgeons were medical practitioners in medieval Europe who, unlike many doctors of the time, performed surgery, often on the war wounded. Barber-surgeons would normally learn their trade as an apprentice to a more experienced colleague. Many would have no formal learning, and were often illiterate.

Midwife- Women could not train as doctors or go to universities.

Women continued to work as midwives but these were not trained and had a bad reputation.

Wealthy patients were opting for physicians over midwives in labour The poor could usually afford a midwife as they charged low fees.

Apothecary- These made and sold medicines and remedies. They also gave advice to people who visited them.

Lesson 7

1665

People still believed in a variety of causes, eg the position of the planets, comets, miasmas or sinful behaviour. This time, however, the authorities did try to stop the plague spreading.

Plague houses were marked with a red cross, sentries placed outside and the inhabitants told to observe a 40-day quarantine. Searchers of the dead were

How are the Black Death and the Plague similar and different in the ideas they used to deal with the outbreak?

employed to determine the cause of death, and the dead were collected at night. Plague doctors were introduced during this period. They believed disease was spread by Miasma. Lesson 8 and 9 Why would the church be against In the late 18th century, Edward Jenner, a doctor in Gloucester, observed that the local dairy maids, and other people who worked with cows, seemed to be vaccination? immune from smallpox. From lesson 1 what factors influence disease? He believed that people who had caught a disease called cowpox seemed to have immunity. He carried out a series of experiments to test his idea. He inoculated a boy called James Phipps with cowpox. When Jenner was sure that the inoculation had worked, he deliberately gave the boy smallpox but the disease had no effect. Jenner had proved his idea. What roles did women have in medicine In 1798, Jenner sent his findings to The Royal Society, but they rejected his from what you have previously studied? work. They were not the only objectors. Some people were suspicious of the idea of using cowpox to cure a human disease. Doctors were making money out of inoculations and did not want to lose that income. Vaccination was seen as dangerous – but this was because doctors often used infected needles. Instead, Jenner published his findings himself. He called his technique vaccination, from the Latin word for cow, vacca. Parliament was obviously impressed and gave Jenner £30,000 to open a vaccination clinic in London.

	Lesson 10	
	Florence Nightingale went to the Crimean War to nurse wounded soldiers.	
What ideas would Louis Pasteur's germ theory prove correct?	She even nursed soldiers during the night, and became known as 'The Lady with the Lamp'. She and her nurses saved many lives.	
	Florence Nightingale is remembered for making changes to nursing and showing people that nursing was a very important job.	
	She believed in Miasma theory	
	Mary Seacole- She went to a battlefield in Crimea to help soldiers. She looked after them in her 'hotel'. This wasn't like a hotel you would stay in on your holidays. It was just a hut made from metal.	
	Unlike Florence Nightingale Mary Seacole died in poverty mainly due to the colour of skin being a barrier.	
	Lesson 11	
	Louis Pasteur	
When was germ theory created?	Louis Pasteur was employed by a brewing company to find out why their beer was going sour.	
	Through the microscope he discovered micro-organisms growing in the liquid. He believed that these germs, so-called because they appeared to be germinating or growing, were causing the problem.	

	He discovered that the microscopic bacteria which turned beer bad could also be killed by heating, ie by pasteurisation.	
	In 1861, Pasteur published his germ theory and, by 1865, had proved the link between germs and disease.	
	In 1879, he discovered a vaccine for chicken cholera. He found that when the germ was exposed to air it weakened, and that injecting this weakened germ into chickens prevented them from catching the disease. In 1881, he developed a vaccine for anthrax and by 1885, a vaccine for rabies.	
How would Koch's ideas help progress Pasteur's ideas?		
	Lesson 12	
	Spontaneous generation- The view that germs appeared out of nowhere.	
	This was dominant view in Britain.	
	Charlton Bastian, a Professor of Anatomy who wrote many articles in the late 1860s, supporting spontaneous generation.	
How does Semmelweis's ideas link to		
Pasteur and Koch?	In January 1870, Bastian was challenged by the physicist John Tyndall. Tyndall very publically defended Pasteur's Germ Theory.	
How has Power, Oppression and voice shaped medicine?		
shaped medicine:	Lesson 13	
	In the late 1870s the German, Robert Koch began to apply Pasteur's ideas to human diseases. In doing so, he created the science of bacteriology. He identified the bacteria which caused anthrax (1875), TB (1882) and cholera (1883).	
	Koch also developed a medium for growing bacteria and a way of staining them so that they could be seen more easily.	

Koch's success spurred Pasteur into action again. At the time, there was intense rivalry between France and Germany, following a war in 1870 (Franco-Prussian war). The German government had given Koch a team of scientists to assist him and now the French government decided to back Pasteur, who went on to develop vaccines.

In the 1880s and 1890s rapid progress was made in identifying the bacteria that caused disease and in developing vaccines.

Lesson 14

Ignaz Semmelweis

He was the first doctor to discover the importance for medical professionals of hand washing. He said that doctors who did not wash their hands were the same as murderers.