

C1250-1500: Medicine in medieval England: Ideas about causes of disease

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, discovering the ideas people had about the causes of disease and illness during the Medieval period in England c. 1250-1500. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

- **Religious Explanations** for causes of disease: as **there was no formal education, ordinary people learnt from the Church. The Church taught that disease was a punishment from God for those who had committed a sin, or a test of faith from the Devil.**
- **Astrology:** People believed that astrology (the alignment of the stars and planets) also had an influence on disease. During diagnosis, physicians would consider star charts, when a patient was born, and when they fell ill. Because God was believed to control everything – including the planets and stars. *For further information, click link 1.*
- **Miasma** was bad air that was believed to be filled with harmful fumes. Both Hippocrates and Galen had written about miasma, which they said came from swamps, corpses and other rotting matter. *For further information click link 2.*
- **The Four Humours :** The theory of the Four Humours said that the body was made up of four elements ('humours') which must be balanced in the body. It was believed that illness was caused by these humours being out of balance. The Theory of the Four Humours was created by Ancient Greek physician Hippocrates and developed by Ancient Rome physician Galen. Galen added to it with the Theory of Opposites, which suggested that the humours could be rebalanced by applying the opposite. For example, someone with too much phlegm (cold) could eat something hot, like a pepper. *For further information, click link 3.*

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.hoddereducation.co.uk/media/Documents/History/Edexcel-GCSE-Medicine-sample.pdf>

2

<https://www.senecalearning.com/seneca-certified-resources/medicine-in-britain-1250-present-gcse-edexcel/>

3

<https://www.bbc.co.uk/teach/class-clips-video/medicine-through-time-medieval-medicine/zbctscw>

Glossary

Miasma: Foul air

The Four Humours: A theory that the body was made up of 4 liquids: Black bile, yellow bile, blood and phlegm.

Historical Skills

Describing key features of the past involves identifying relevant features of that aspect of the past and developing a description of them with precise factual information and then comparing them to another time period and carrying out the same detail about how that time period did things similarly or differently.

Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1250-1500: Medicine in medieval England: Approaches to prevention and treatment

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, discovering the approaches to prevention and treatment of disease and illness during the Medieval period in England c. 1250-1500. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

METHODS OF PREVENTION AND TREATMENT:

- **Religious:** included prayer, fasting, paying for a special Mass and pilgrimages.
- **Supernatural:** Using charms and amulets and chanting to ward off diseases and heal symptoms.
- **Astrology:** operations could only be carried out depending on the position of the stars.
- **The Four Humours:**
 - **Blood-letting:** Methods including cupping, leeches and cutting a vein
 - **Purging:** Patients were given emetics (to make them vomit) or laxatives (to empty the bowels).
 - **Theory of Opposites:** The 'opposite' would be applied to an excess humour.
- **Herbal remedies:** used to drink, sniff or bathe in were often used e.g. aloe vera, mint and saffron.
- **Purifying the air:** People purified the air by carrying sweet herbs (lavender) or flowers.
- **Government action:** some action from local government, who tried to tackle miasma by keeping towns clean. E.g. fines. *For further information click link 1.*

HOSPITALS AND CAREGIVERS

- **The number of hospitals increased during the Middle Ages.** Mostly run by monasteries caring for ill/old people – rather than treating and curing them.
- **There were three types of medic:**
 - **Physicians:** university trained included Galen's ideas. They diagnosed illness and recommend a treatment, but they didn't treat the patient themselves. They were very expensive.
 - **Barber surgeons** carried out small operations such as bloodletting. They learned on the job not from books.
 - **Apothecaries** mixed herbal remedies and were cheaper option, sometimes gave poison to purge body. *For further information click link 2 and 3.*

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

https://www.youtube.com/watch?v=iH7HJoB_ZO8&list=PL04349AC9C197EC93

2

<https://www.bbc.co.uk/bitesize/guides/evision/4>

3

<https://www.youtube.com/watch?v=hUnzLNK6fmA&list=PL04349AC9C197EC93>

Historical Skill

Students will develop their knowledge and understanding of this period and practise how to answer questions that will target key features and causation and may also target other second order concepts (change, continuity, consequence, similarity, difference, significance).

Glossary

Mass: a Catholic church service

Pilgrimage: a religious journey to prove they are worthy to God

Astrology: Study of the stars

Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1250-1500: Medicine in medieval England: Case Study

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, discovering the ideas people had about the causes and treatment of the plague in 1348 during the Medieval period in England c. 1250-1500. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

In 1348 a new plague, the Black Death, reached England. It was spread by fleas (People did not know this at the time) and the main symptom was large, painful buboes. Most victims died within a few days, and around a third of England's population died in all.

CAUSES:

- Religious and supernatural: Many thought the plague was God deserting mankind.
- Astrology: There had also been an unusual positioning of the planets in 1345, which some thought was a bad sign.
- Bad air: Miasma was the main cause associated with the Black Death. People thought it was spread by breathing in impure air. *For further information, click link 1*

TREATMENT:

- Religious and supernatural: People prayed and confessed their sins, although many accepted that it was God's will for you to get the plague.
- Humours treatments: Physicians tried standard treatments like purging and bleeding, but these did not work. Surgeons sometimes lanced (pierced) the buboes, and occasionally these patients would survive.
- Purifying the air: Bonfires and sweet-smelling herbs were used to ward off bad air.
- Herbal remedies: These were used, but like humours treatments, were mostly ineffective. *For further information, click link 2.*

PREVENTION

- Religious and supernatural: People prayed, made pilgrimages and whipped themselves (self-flagellation) to show how sorry they were.
- Purifying the air: One of the main ways of prevention was to carry sweet herbs. People also ran away to escape the bad air in towns, but this only helped to spread the plague. *For further information click link 3.*

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1

<https://www.youtube.com/watch?v=P7K92pL77I0&list=PLO4349AC9C197EC93&index=13>

2

<https://ap.p.senecalearning.com/classroom/course/67b0ecb0-38be-11e8-977a-011111111111>

3

<https://www.hoddereducation.co.uk/media/Documents/History/Edeexcel-GCSE-Medicine-sample.pdf>

Historical Skills

Students will develop skills in assessing how far they agree or disagree with a statement about a person or event's importance by selecting relevant evidence, explaining its key features and arguing for and/or against the statement, evaluating and analysing the evidence to come to an overall justified judgement.

Glossary

The Black Death: the plague that killed 1/3 of England's population and arrived in 1348.

Flagellants: whipped themselves to show God they had already been punished for their sins and therefore God should not give them the plague.

Part 1 Medicine in Britain, c.1250-present

C1500-1700: The Medical Renaissance in England: Ideas about causes of disease

"If you believe you can achieve!"

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, discovering the ideas people had about the causes of disease and illness during the Medical Renaissance c. 1500-1700. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

Continuity and change in ideas:

- **Religious Explanations:** Some now recognised that God did not send disease, although in desperate times such as the Great Plague 1665 they still turned to religion.
- **Astrology:** some still believed that astrology influenced disease. Some blamed the 1665 plague on unusual planet alignments from October and November 1664.
- **Miasma:** Most people still believed that miasma caused disease. A miasma could be caused by rotting food, decaying corpses, excrement or any other smelly, dirty place.
- **The Four Humours:** Although many top physicians were now challenging Galen's ideas, most ordinary people continued to believe that illness was caused by an imbalance of humours. *For further information, click link 1.*

A Scientific approach to ideas:

- **Thomas Sydenham:** believed that physicians should closely observe the patient and record their symptoms. Sydenham correctly said that measles and scarlet fever were separate diseases, even though he couldn't identify the individual microbes that caused each. This laid the foundations for future individuals to take a more scientific approach to medicine. *For further information click link 2*
- **Printing press:** New ideas about medicine could be spread more quickly due to the invention of the printing press. Books were no longer copied out by hand in monasteries, which meant that scientists could more easily share new information with each other. The Church – who had promoted Galen's theories – no longer had control over what was published. *For further information click link 3.*
- **The Royal Society:** was an influential group of scientists formed in 1660. Its members shared experiments and promoted scientific ideas. Charles II supported the group, so gave it more credibility.

Glossary

Scarlet Fever: an infectious disease affecting children and causing fever and a scarlet rash.
Renaissance: means 'rebirth'

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.kinged.org.uk/site/data/files/documents/1381676>

2

<https://www.britannica.com/biography/Thomas-Sydenham>

3

<https://www.thesun.co.uk/blog/primacy>

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Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1500-1700: The Medical Renaissance in England: Approaches to prevention and treatment

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, discovering the approaches to prevention and treatment of disease and illness during the Medical Renaissance c. 1500-1700. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

PREVENTION

- Lifestyle advice: Physicians advised avoiding too much exhaustion, fatty foods, strong alcohol and laziness. Public Bathing became less as it was thought syphilis may be caught.
- Purifying the air/Miasma: Sewage and rubbish were picked up from the streets, and bonfires were lit in public areas to ward off foul smells.
- Government: a more active role, giving fines for not cleaning the street outside homes.

TREATMENTS

- Herbal remedies: continued to be used, but they were now chosen because of their colour or shape, e.g. yellow herbs were used to treat jaundice. New herbs from the New World, discovered in 1492, e.g. Tobacco was also used as the smell and taste was believed to ward off miasma.
- Humours treatments: people still believed in humours e.g. bloodletting.
- Transference: a theory that disease could be transferred to something else by rubbing it.
- Chemical cures: Alchemy (an early form of chemistry) looking for chemical cures e.g. mercury. *For further information, click link 1 and 2.*

HOSPITALS & CAREGIVERS

- Hospitals had physicians and tried to cure, not just care for patients. Many hospitals closed with the closure of the monasteries.
- Pest houses: a new type of hospital for infectious diseases e.g. plague or pox victims.
- Physicians continued to learn from books not experience e.g. anatomy.
- Surgeons: had to have a licence to practise medicine. Dissections were now allowed.
- Apothecaries: had to have a licence to trade. *For further information click link 3.*

Glossary

Jaundice: illness that turns the skin yellow

Mercury: a poisonous chemical that was used to purge patients to remove illness.

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.youtube.com/watch?v=t61uirWN2pl>

2

<https://app.senecalearning.com/classroom/course/67b0ecb0-38be-11e8-977a-0db134efd493/section/6665a0a0-38c1-11e8-8999-cd79d6379685>

3

<https://www.teachithistory.co.uk/resources/ks4/medicine-health/thematic-studies/to-what-extent-did-care-givers->

Historical Skills

Describing key features of the past involves identifying relevant features of that aspect of the past and developing a description of them with precise factual information and then comparing them to another time period and carrying out the same detail about how that time period did things similarly or differently.

C1500-1700: The Medical Renaissance in England: Case Studies

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, **Andreas Vesalius, William Harvey and the The Great Plague** during the Medical Renaissance c. 1500-1700. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

VESALIUS: was an Italian physician and published *On the Fabric of the Human Body* (1543), containing detailed drawings of the human anatomy from dissecting executed criminals. He found mistakes in Galen's work, e.g. the human jawbone was in 1 part, not 2, the human breastbone was in 3 parts, not 7. Vesalius encouraged other doctors to carry out dissections and to investigate the human body. *For further information, click link 1.*

HARVEY: William Harvey published *An Anatomical Account of the Motion of the Heart and Blood* in 1628. He discovered that the heart acted as a pump, pumping blood around the body in a one-way system. He also proved Galen wrong. *For further information click link 2*

CAUSES OF THE GREAT PLAGUE 1665

- Religious: People thought God had sent the plague to clear up the kingdom.
- Planets: There had also been unusual planet alignments the previous year.
- Miasma: bad air, created by rubbish and sewage in cities was the most believed.
- People: Many realised plague was spread from person to person, though they didn't know how.

TREATMENT & PREVENTION OF THE GREAT PLAGUE 1665

- Transference was also tried, e.g. strapping a live chicken to the buboes.
- Herbal remedies continued to be popular E.G. 'PLAGUE WATER'.
- Religious: People were advised to pray and repent their sins.
- Purifying the air: Carrying sweet-smelling herbs, and fires were lit.
- Plague doctors: Plague doctors wore special beaked masks and coated their cloak in wax, so that pus and blood did not soak into it.
- Diet advice: Fasting suggested, as well as specific foods such as a garlic-heavy diet.
- Government orders: The government took a much bigger role in public health, e.g. Quarantine laws, Large crowds banned, Stray animals killed, Streets cleaned. *For further information click link 3.*

Glossary

The Great Plague: broke out across England in 1665. The disease was spread by fleas on rats, and people were as helpless to stop it as they had been during the Black Death.

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific

1

<https://www.youtube.com/watch?v=walfj2dpU-E&list=PLJIGpHXYz>

2

<https://www.teachithistory.co.uk/resources/ks4/medicine-health/th>

3

<https://www.youtube.com/watch?v=HPe>

Historical Skill

Students will develop their knowledge and understanding of this period and practise how to answer questions that will target key features and causation and may also target other second order concepts (change, continuity, consequence, similarity, difference, significance).

Part 1 Medicine in Britain, c.1250-present

C1700-1900: Medicine in 18th and 19th Century Britain: Ideas about the causes of disease

"If you believe you can achieve!"

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, ideas about the causes of disease and illness during 18th and 19th century Britain. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

- **SPONTANEOUS GENERATION:** A theory that said that microbes were created by decaying matter (e.g. rotting animals or food). It seemed logical because scientists were able to see microbes through microscopes. *For further information click link 1.*
- **GERM THEORY:** was published by French scientist Louis Pasteur in 1861. He proved that spontaneous generation was wrong, and that germs in the air must cause decay.
 - Pasteur realised that if germs caused decay, then they might also cause disease. However, germ theory had almost no impact initially, for several reasons:
 - Spontaneous generation was still promoted by influential doctors.
 - Pasteur was not a doctor, and his work mainly looked at decay and spoiled food.
 - Doctors observed bacteria all over the body, even in healthy people, so it seemed impossible that they could cause disease.
 - Because Pasteur hadn't been able to identify the specific germs that caused different diseases, germ theory seemed to have little practical use in treating disease. *For further information click link 2*
- Robert Koch, a German scientist, was the first to identify the different microbes that caused disease. He discovered the bacteria that caused anthrax (1876), tuberculosis (1882) and cholera (1883). Koch made it easier for other scientists to study bacteria, because his method - growing bacteria in jelly, colouring them with dye and photographing them under the microscope - was used by others. Koch had a big advantage - he received funding from the German government. *or further information click link 3.*
- **MIASMA:** Despite new discoveries such as germ theory, many still believed in miasma until the late 1800s. London's sewage was emptied straight into the Thames, and this caused the Great Stink in 1858 which seemed to support miasma theory.

Glossary

Germs: micro-organisms that grow/germinate to cause disease

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.youtube.com/watch?v=Dlbh6024R1c>

2

<https://www.bbc.co.uk/bitesize/guides/ztpw4j6/revision/2>

3

<https://www.youtube.com/watch?v=ZmaoHB5fKB4&list=PLJIGpHXYzYnauWk5VrschC4vi30IIAVaf8&index=>

Historical Skills

Students will develop skills in assessing how far they agree or disagree with a statement about a person or event's importance by selecting relevant evidence, explaining its key features and arguing for and/or against the statement, evaluating and analysing the evidence to come to an overall justified judgement.

Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1700-1900: Medicine in 18th & 19th Century Britain: Approaches to prevention & treatment1

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, the approaches to prevention and treatment of disease and illness during 18th and 19th century Britain. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

HOSPITALS: By 1700 there were only 5 in England. Hospitals focused more on treating people. Doctors visited patients regularly and apothecaries mixed treatments on site. Working-class people now had access to trained doctors. However, hospitals became less sanitary (less clean). There were separate wards for infectious patients, but doctors would often go between wards and patients without washing or changing clothes.

•**Florence Nightingale** helped to transform hospital care in Britain after her experience in the Crimean War in 1854. Nightingale was an effective organiser and administrator. She focused on thoroughly cleaning the hospital, providing clean clothes and bedding, improving sanitation and providing good ventilation (she believed in Miasma). The death rate at Scutari fell from 40% to 2%. Nightingale wrote books about her methods and founded the Nightingale School for Nurses in 1860. *For further information, click link 1.*

SURGERY: There were 3 problems: bleeding, pain and infection.

•**Anaesthetics** (Pain): Ether had been used as an anaesthetic in US, but it made patients vomit and cough. In 1847, James Simpson discovered Chloroform. However, there were some problems: An overdose could kill the patient; It sometimes affected the heart; With such an effective anaesthetic, doctors began to attempt more complex operations but patients died from blood loss and infection. *For more information click link 3.*

•**Antiseptics** (Infection): Patients would survive operations but die from infections like gangrene and sepsis. Joseph Lister believed germ theory and used carbolic acid (an antiseptic) to keep a wound clean in 1865. Lister also sprayed the acid during operations, to disinfect the air in the theatre. However, antiseptics were slow to catch on because: Germ Theory not widely accepted yet and Carbolic spray made surgeon's hand sore. However, by 1900, aseptic surgery was commonplace. *For further information click link 2 and 3.*

Glossary

aseptic surgery: removing all germs from operating theatres before surgery

Anaesthetics: A chemical that would send the patient to sleep for pain free surgery

Antiseptic: chemical that would clean germs to prevent infection.

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

[https://
www.bb
c.co.uk/b
itesize/g
uides/z2
7nqhv/re
vision/3](https://www.bbc.co.uk/bitesize/guides/z27nqhv/revision/3)

2

[https://
www.yo
tube.co
m/watch
?v=C8W
brS0O5F
F](https://www.youtube.com/watch?v=C8WbrS0O5FF)

3

[https://ww
w.youtube.
com/watch
?v=Vg1hqZ
anDa0&list
=PLIJGpHXY
zYnauWk5V
rschC4vi30L
IAYaf&inde](https://www.youtube.com/watch?v=Vg1hqZanDa0&list=PLIJGpHXYzYnauWk5VrschC4vi30LIAYaf&index=1)

Historical Skill

Students will develop their knowledge and understanding of this period and practise how to answer questions that will target key features and causation and may also target other second order concepts (change, continuity, consequence, similarity, difference, significance).

C1700-1900: Medicine in 18th & 19th Century Britain: Approaches to prevention & treatment2

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, the approaches to prevention and treatment of disease and illness during 18th and 19th century Britain. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

- **INOCULATION:** Smallpox was a major killer disease. Inoculation involved spreading pus from a smallpox scab into a cut in a healthy person and hopefully they would only catch a mild case of smallpox and become resistant to it. Some still died or passed the disease on.
- **THE DEVELOPMENT OF VACCINATIONS:** In 1796 Edward Jenner made a discovery that the mild illness cowpox could be used to vaccinate and prevent catching the deadly smallpox. However, there was opposition as he could not explain why it worked (see case study for more details). In 1852 smallpox vaccination was made compulsory, though it wasn't properly enforced until 1872. Louis Pasteur developed the next vaccines, for chicken cholera, anthrax and rabies, in the 1870s. He published his germ theory of infection in 1878. Pasteur, in turn, inspired Emil von Behring to develop vaccines for tetanus and diphtheria in 1890. *For further information click link 1.*
- **PUBLIC HEALTH:** Before the 1800s, the government had a laissez-faire ("leave alone") attitude towards public health. In 1842, Edwin Chadwick published his Report on the Sanitary Conditions of the Labouring Classes. It showed that poor people in cities had a much lower life expectancy. Chadwick suggested that local governments should be responsible for public health. The First Public Health Act (1848): encouraged local councils to set up a local board of health and provide clean water supplies. However, most councils didn't act because it was not compulsory. From the 1860s, the government began to take more action. Following the Great Stink of 1858, a modern sewer system was built in London. The Second Public Health Act (1875): It was compulsory for city authorities to: Provide clean water, Dispose of sewage safely, build public toilets, employ a public health officer to monitor disease, etc. *For further information click link 2*

Glossary

Vaccination: To be given a 'safe' substance to build up the body's immunity to a disease.

Inoculation: To be given a potentially 'unsafe' amount of a disease (e.g. smallpox scab rubbed into a cut) in the hope that it will only give a mild case of the disease so that immunity can be achieved.

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.youtube.com/watch?v=yqUFy-t4MIQ>

2

<https://www.bbc.co.uk/bitesize/guides/zq9s6fr/revision/5>

Historical Skills

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Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1700-1900: Medicine in 18th and 19th Century Britain: Case studies

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, the discoveries of Snow and Jenner during 18th and 19th century Britain. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

EDWARD JENNER: Discovery: In the 1790s, Edward Jenner noticed that dairy maids who had already had the mild illness cowpox did not catch smallpox.

Jenner experimented by infecting a boy with cowpox, then waiting a few weeks and then giving him smallpox. The boy didn't catch smallpox. Jenner called this process vaccination (vacca = Latin for cow). Vaccination was safer than inoculation as it was a controlled dose, and the vaccinated person couldn't spread the disease. He published his theory in 1798. **Opposition:** However, Jenner's discovery was a one-off – he couldn't explain exactly why it worked, so he couldn't use it to prevent other diseases. Many did not believe him. The Royal Society refused to publish his ideas. Those who made a living from Inoculation were unhappy because vaccination lost them money. The Church felt that using animal infection in human trials was unnatural. *For further information, click link 1.*

JON SNOW: Discovery: There was serious Cholera epidemic in 1854. John Snow thought it was spread by drinking dirty water. Snow created a map showing all the cholera deaths in the area. The deaths seemed to be centred around the Broad Street water pump. He removed the handle of the pump so that people couldn't use it, and the deaths stopped. This proved that the pump caused the disease. It was later found that the pump had been contaminated by a nearby leaky cesspit. Snow presented his findings to Parliament in 1855. **Opposition:** Many rejected John Snow's work because he had no scientific proof. Overall, Snow had an immediate impact on the Broad Street area, but his impact outside of this area was limited. The importance of clean water was not truly accepted until later when Snow's ideas were backed up by Pasteur's germ theory in 1861 – but Snow was dead by this time. *For further information click link 2 & 3*

Glossary

Smallpox: A killer disease causing fever and pustules that left permanent scars on survivors.

Cholera: A killer water-born disease causing sickness and diarrhoea.

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.youtube.com/watch?v=sJRJeOxX6no>

2

http://www.bbc.co.uk/history/historic_figures/snow_john.shtml

3

<https://www.youtube.com/watch?v=TT4Z1Ikf36w&list=PLJIGpHXyZynauWk5VrschC4vi30IIAVgf&index=15>

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Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1900-present: Medicine in 20th & 21st Century Britain: ideas about the causes of disease

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, people's ideas about the causes of disease and illness during 20th and 21st century Britain. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

- **Genetics** : some people are born with illnesses or conditions which were hereditary. By 1900, German scientist, Mendel believed that genes came in pairs, but microscopes weren't powerful enough to identify gene pairs. Scientists thought that a substance in human cells passed on information from each parent to their child. In 1953, Cambridge scientists James Watson and Francis Crick identified this substance as DNA. They found that DNA is shaped as a double helix after close-up x-ray images were produced by Rosalind Franklin and Maurice Wilkins. In 1990, scientists led by James Watson launched the Human Genome Project to identify the complete set of DNA which makes up human beings. It took 100s of scientists from 18 countries over 10 years to complete. Scientists now use this 'blueprint' to look for mistakes or mismatches in the DNA of people with hereditary diseases. *For further information, click link 1 and 2*
- **Lifestyle and health**: Smoking became more popular from the 1920s, especially amongst young people. Doctors now know that smoking can cause conditions such as cancer, high blood pressure, heart disease and tooth decay. People are now strongly advised not to smoke. Diet is also important. Sugar and fat should be eaten in moderation, because they can lead to diabetes and heart disease, and too much alcohol can damage the liver. Other lifestyle factors which influence health include unprotected sex, drug taking and tanning (can result in skin cancer).
- **Modern technology** means that doctors no longer have to use surgery to diagnose all diseases. Please see the table for some of the common technologies used to make a diagnosis: *For further information click link 3.*

Glossary

Hereditary: passed on from parents

Human Genome Project: set up to identify all 3 billion pairs of human DNA

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.teachithistory.co.uk/?resource=34930>

2

<https://www.youtube.com/watch?v=3dozVXh7hi8>

3

<https://www.bbc.co.uk/bitesize/guides/zchw4j6/revision/2>

Technology	First used	Used for
Blood pressure monitors	1880s	Diagnosing high and low blood pressure.
X-rays	1890s	Help to see inside the human body without surgery.
ECGs	1900s	Uses electrical impulses to track heart activity.
Endoscopes	1900s	A camera on the end of a thin, flexible tube, often used to investigate digestive symptoms.
Blood tests	1930s	Testing for conditions without the need for invasive surgery.
Ultrasound scans (sonograms)	1940s	Diagnosing things like gall and kidney stones, by using sound waves to create a picture.
Blood sugar monitoring	1960s	Allows diabetes sufferers to monitor blood sugar levels regularly.
CT scans	1970s	A more advanced form of x-rays, used to diagnose tumour and growths.
MRI scans	1970s	Diagnosing soft tissue injuries by using radio waves and magnets to create an internal image of the body.

Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1900-present: Medicine in 20th & 21st Century Britain: Approaches to prevention & treatment 1

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, approaches to prevention and treatment of disease and illness during 20th and 21st century Britain. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

- **The NHS:** Launched in 1948 to provide free medical care to everybody, paid for by everybody with National Insurance contributions. It was overseen by Minister of Health Aneurin Bevan after The Beveridge Report was published. The NHS took over existing hospitals and surgeries. The government made changes in the 1960s, including building more hospitals. Increased life expectancy and a larger population has resulted in longer waiting times and increasing costs. *For further information, click link 1.*
- **Magic bullets:** These were chemical cures which attacked disease causing microbes. Paul Ehrlich developed the first magic bullet in 1909. He tested arsenic compounds and found a cure for syphilis called Salvarsan 606 but it could also kill the patient. In 1932, Gerhard Domagk discovered that Prontosil cured blood poisoning in mice and then in humans after he used it on his ill daughter.
- **Antibiotics:** these were treatments that kill/limits the growth of bacteria in the body. The first antibiotic was penicillin. This was discovered by Fleming, Florey and Chain (see case study). Scientists have since been able to develop versions of penicillin to treat specific diseases. However, some penicillin-resistant bacteria has appeared. *For further information, click link 2.*
- **Modern drugs:** Scientists have developed medicines which treat specific diseases. Drugs trials now take several years - this slows progress but makes them safer. Mass production, the development of capsule tablets and the hypodermic needle have all made drugs more easily available.
- **Surgery:** Blood transfusions were possible after Karl Landsteiner identified the first blood groups in 1900. Blood banks were first used in the First World War. Successful organ transplants were first carried out in the 20th century, including the first kidney (1956), lung (1963), liver (1967) and heart (1967) transplants using keyhole surgery and robotic surgery. Since the 1930s, anaesthetics have been injected rather than inhaled to be safer. *For further information click link 3.*

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.teachhistory.co.uk/resource/s/ks4/medicine-1>

2

<https://app.senecalearning.com/course/67b0ecb0-38be-11e8-977a-0db134efd493/section/1>

3

<https://www.bbc.co.uk/bitesize/guides/zchw4j6/revision/>

Historical Skills

Students will develop skills in assessing how far they agree or disagree with an statement about a person or event's importance by selecting relevant evidence, explaining it's key features and arguing for and/or against the statement, evaluating and analysing the evidence to come to an overall justified judgement.

Glossary

Anti-biotics: treatment to kill/limit growth of bacteria using microorganisms

Magic Bullet: Treatment to kill disease causing microbes using chemicals

Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1900-present: Medicine in 20th & 21st Century Britain: Approaches to prevention & treatment 2

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, approaches to prevention and treatment of disease and illness during 20th and 21st century Britain. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

Mass vaccinations: The first government vaccination campaign was for diphtheria in 1942. This was introduced because it was feared the cramped conditions in air-raid shelters during the war could lead to an epidemic. As a result, diphtheria cases plummeted. Another significant vaccination was for polio in the 1950s. Take-up for the vaccination was slow at first, until England footballer Jeff Hall died of polio in 1959. Because he was young, fit and famous, it showed that anyone could die from the disease. Demand became so high that extra supplies had to be flown in from America. *For further information, click link 1..*

Government legislation: The Liberal government of 1906-14 passed a series of social reforms to improving public health, including free school meals (1906), medical checks in schools (1907) and the National Insurance Act (1911), which gave assistance to ill workers. These measures went some way to improving access to medical care, although there were still many who couldn't afford to see a doctor.

Some other laws passed by government to make the country healthier are: The Clean Air Acts of 1956 and 1968, introduced after bad episodes of smog in London, dietary information must be displayed on food packaging, in 2007, smoking was made illegal in all enclosed workplaces, cigarettes cannot be advertised, and their packaging must be plain. *For further information, click link 2.*

Government lifestyle campaigns: As well as direct legal intervention, the government also tries to prevent disease through promoting a healthier lifestyle: Advertising campaigns, which warn about the dangers of smoking, drugs, alcohol and unprotected sex, events such as Stoptober, which encourages people to stop smoking and initiatives which encourage healthier eating, e.g. Change4Life. *For further information click link 3.*

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.bbc.co.uk/bitesize/guides/zch/w4j6/revision/5>

2

https://www.youtube.com/watch?time_continue=81&v=my14ZuzjH5I&feature

3

<https://www.bbc.co.uk/bitesize/guides/z99/24qt/revision/5>

Historical Skills

Students will develop skills in assessing how far they agree or disagree with an statement about a person or event's importance by selecting relevant evidence, explaining it's key features and arguing for and/or against the statement, evaluating and analysing the evidence to come to an overall justified judgement.

Glossary

Diphtheria: A contagious bacterial disease which hinders breathing and swallowing, and potentially fatal heart and nerve damage by a bacterial toxin in the blood

Polio: An infectious disease of the nerves of the spine that can cause paralysis

Part 1 Medicine in Britain, c.1250-present

"If you believe you can achieve!"

C1900-present: Medicine in 20th & 21st Century Britain: Case studies

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of Medicine in England c.1250-present day, in particular, the work of Fleming, Florey and Chain in the development of antibiotics and the diagnosis, treatment and prevention of Lung Cancer during 20th and 21st century Britain. Furthermore, pupils will have the opportunity to develop the following historical skills; explaining and analysing reasons, explaining key features and comparing and evaluating the significance of events and people.

Pupils should know:

- **The development of Antibiotics:** British doctor Alexander Fleming discovered penicillin by chance in 1928. Penicillin spores landed on a petri dish of bacteria and the penicillin mould killed off the harmful bacteria. However, Fleming did not pursue it. In 1940, Howard Florey and Ernst Chain found that penicillin killed bacteria in infected mice, but it took a long time for them to grow penicillin. By 1941 they thought they had enough and experimented on a policeman with septicaemia. It seemed to work until they ran out and the patient died. Florey and Chain needed to produce it on an industrial scale, but British companies were busy with the war. In 1941 some American firms agreed to start production and the US government gave funding to 21 companies. In 1943, British companies also started to make penicillin. In 1944, there was enough penicillin to treat all the Allied soldiers wounded in D-Day. *For further information, click link 1 and 3.*
- **Lung Cancer** is the UK's 2nd most common cancer due to smoking. *Diagnosing lung cancer:* It was diagnosed using x-rays, but these were inaccurate. New technology has made diagnosis easier and more reliable: CT scans give a detailed image of inside the body, patients are injected with a dye to make the lungs show up on the scan, a bronchoscope (like an endoscope) is put into the lungs to collect a sample of the cells for testing. *Treating lung cancer:* There are many treatments available using modern technology: Removing all or part of the lung, lung transplant, radiotherapy, chemotherapy and investigations into genetic treatment. *Preventing lung cancer:* In 1985, the government got £4bn from tobacco tax so did not act. Since then, the government has taken action: In 2005, cigarette advertising was banned, in 2007, smoking was banned in public, the legal age to buy tobacco was raised to 18, in 2015, smoking was banned in cars carrying children, all cigarette products must be removed from display in shops, anti-smoking advertising campaigns are produced, the dangers of smoking taught in schools and the increased taxation of tobacco products, to make them more expensive. *For further information click link 2 & 3.*

Opportunities for deeper learning can be accessed by scanning or clicking the following links for topic-specific websites or YouTube clips:

1

<https://www.bbc.co.uk/bitesize/guides/zchww4j6/revisions/5>

2

<http://www.walto.ac.org.uk/wp-content/uploads/2015/07/12>

3

<https://www.youtube.com/watch?v=bF6gMaCIR9g>

Historical Skills

Describing key features of the past involves identifying relevant features of that aspect of the past and developing a description of them with precise factual information and then comparing them to another time period and carrying out the same detail about how that time period did things similarly or differently.

Glossary

Radiotherapy: shrinking the tumour with radiation
Chemotherapy: shrinking the tumour with drugs

Key Topic 5: The British sector of the Western Front, 1914–18: injuries, treatment and the trenches

"If you believe you can achieve!"

The intended purpose of this unit of study is to develop pupils' knowledge and understanding of the following aspects of The British sector of the Western Front, 1914–18:

- Injuries
- Treatment
- The Trenches
- Knowledge, selection and use of sources for historical enquiries

Furthermore, pupils will have the opportunity to continue to develop the following historical skills that were embedded at Key Stage Three; description of key features, analysing utility, and planning a historical enquiry.

Glossary of topic-specific key terms

- **Trench** – A a long, narrow ditch designed to protect soldiers from enemy fire.
- **Somme** – An area of fierce fighting on the Western Front.
- **Shellshock** – The name given to describe the condition that we now know to be Post Traumatic Stress Disorder.
- **RAMC** – The Royal Auxiliary Medical Corps, the medical branch of the British Army
- **Trench foot** – A common medical condition affecting soldiers, which would lead to gangrene of the feet.
- **Thomas Splint** – A new treatment to safely heal broken legs
- **Blood Transfusion** – A treatment which involves transferring blood from a healthy individual to a patient suffering blood loss.
- **Chain of evacuation** – The system of hospitals which injured soldiers would visit, depending on the severity of their injuries.

Opportunities for deeper learning can be accessed by scanning or clicking the following QR codes for topic-specific websites:



Historical Skills

- Description of key features involves identifying important elements of a given topic, as well as showing understanding through the deployment of factually accurate detail.
- Analysis of the source usefulness involves effectively exploring how useful a given source is for a particular enquiry. This will involve examining the content, provenance, and historical context of the source
- Planning a historical enquiry involves examining a given source and developing a valid historical enquiry about the source. This will involve asking a question about the source and identifying how the question could be answered.

The British sector of the Western Front, 1914–18: injuries, treatment and the trenches

Topic	Pupils should know that:
The historical context of medicine in the Twentieth Century	<ul style="list-style-type: none">• By 1914 it was known that bacteria disease, so measures were taken to make operating theatres free from bacteria. However, these conditions were very difficult to recreate on the muddy and unhygienic battlefields of the Western Front.• By 1914, radiology (X-Ray) departments were opening in a number of hospitals. This had enormous potential in a war context; it would possible to see internal injuries and the remains of bullets and shrapnel using an X-ray.• By 1905 the existence of different blood groups had been identified but widespread blood transfusion wasn't yet possible because there was no way to store blood.
The context of the British sector of the Western Front	<ul style="list-style-type: none">• The Western Front was the main focus of fighting during the First World War. Both sides dug in along a meandering line of fortified trenches, stretching from the North Sea to the Swiss frontier with France, which changed little except during early 1917 and in 1918.• Front line trenches were usually about seven feet deep and six feet wide. The top of the trench would have a thick line of sandbags to absorb any bullets or shell fragments Behind the front-line trenches were support and reserve trenches.• The main areas of battle on the Western Front were at the Ypres salient, the Somme, Arras and Cambrai.• Much of the war on the Western Front was fought on muddy fields which were littered with craters and holes, as well as a constant barrage of bullets, shells, and shrapnel.
The apparatus of British healthcare on the Western Front	<ul style="list-style-type: none">• All medical officers and men in 1914 belonged to the RAMC - Royal Army Medical Corps - which organised and provided medical care at the Western Front. It consisted of all ranks - from doctors to ambulance drivers and stretcher-bearers.• Some women became members of the First Aid Nursing Yeomanry (FANY). In 1916, members of the FANY were officially recruited into the British Army.• Rapid treatment was key to the survival of an injured soldier, but this was met with the difficulty of transporting soldiers across the battlefield. This led to the development of the Chain of Evacuation – a four stage plan to move soldiers to a medical facility that could meet the needs of their treatment. It consisted of the Regimental Aid post, Dressing Stations, Casualty Clearing Stations, and finally a Base Hospital.

The British sector of the Western Front, 1914–18: injuries, treatment and the trenches

Topic	Pupils should know that:
The apparatus of British healthcare on the Western Front	<ul style="list-style-type: none">• The awful conditions in trenches contributed to considerable ill health amongst soldiers. The unsanitary conditions of trench life, especially the cold, persistent dampness, resulted in trench foot, a frost-bite-like infection that in extreme cases, led to gangrene and amputation.• Infection was extremely common, as were head injuries as a result of the lack of proper protective equipment from bullets and shrapnel.• Gas attacks were a new feature of warfare on the Western Front. The three main gas types - Phosgene, Chlorine, and Mustard – all affected the body differently and would require different courses of treatment.• Shellshock, or Post Traumatic Stress Disorder as it is now known, affected a huge number of soldiers. However, it was not well understood and therefore there was very little treatment for it..
The developments in medicine made on the Western Front	<ul style="list-style-type: none">• In the early stages of the war amputation was the most common method of dealing with an infected wound. By 1917 the Carrel- Dakin method had been developed and had become the most effective solution to infected tissue. This method involved putting sterilised salt solution in a wound through a tube.• In the early stages of the war soldiers with a broken leg would have a very small chance of survival (20%). Many who survived had to have their legs amputated. Hugh Thomas invented the Thomas Splint, which was tested on in a hospital in London. This increased survival rates from this type of wound from 20% to 80%.• Approximately 20% of all injuries in the Western front were head, neck and face. This was because these were the parts of the body which were least protected. This led to significant developments in plastic surgery and brain surgery.• X-rays were used from the start of the war. They were mainly used to show shrapnel and bullets, if they were removed this would help stop infection.• The use of blood transfusions was introduced from 1915 by Lawrence Bruce Robertson in the base at Boulogne. By 1917 blood transfusions were being carried out in the Casualty Cleaning Stations because they had been so successful at the base hospitals. The first blood depot was created before the Battle of Cambrai in 1917.