GCSE History
Revision Guide

Britain: Health and the People

Name _____

Teacher _____

Instructions for using the revision guide

This revision guide will be your homework throughout the year. You will be set one piece of revision per week, to be completed in this booklet.

QR Codes

Throughout the booklet there are a number of QR codes which will take you to other helpful sites/resources to aid your revision. You will need to download a QR scanner on your phone to make sure you can access the material.

Seneca

There are lots of resources available for our course on Seneca. These will be embedded with QR codes. You will need to create a Seneca account to access sources.

Quizlet

Quizlet is an excellent free resource that is available online. It is a form of online flashcard which allows you learn and memorise the information, test yourself and play revision games. I highly recommend setting up an account.

YouTube

There are lots of useful videos and revision clips on YouTube. Your teacher will, where possible link these with the QR codes.

Option – Health and the People

TOPIC	I can explain…	Red	Amber	Green
Part 1: Medieval medicine – Medicine stands still				
1. **Medieval causes and cures of disease**	• Importance of Hippocrates and Galen in medieval medicine			
	• Causes of illness in medieval England			
	• Treatments and cures in medieval England			
	• Where could you go to be treated?			
	• Medieval surgeons			
2. **Christianity and Medieval hospitals**	• How far did Christianity help medical knowledge?			
	• How did Islam contribute to medical knowledge?			
	• How were medieval hospitals run?			
3. **Public health and Black Death**	• Government intervention in medieval public health			
	• Causes and treatments of the Black Death			
	• Impact/consequences of the Black Death (religious, economic, social)			

TOPIC	I can explain…	Red	Amber	Green
Part 2: The Renaissance – the beginnings of change				
1. **Renaissance context**	• What was the renaissance? What characteristics/events occurred?			
	• How did the overall context of the renaissance affect medicine?			
2. **Renaissance medicine**	• Renaissance treatments; how scientific were they?			
	• Renaissance hospitals			
	• Significant renaissance surgeons; o Andreas Vesalius o Ambroise Pare o William Harvey o Thomas Sydenham			
	• Vaccination and inoculation; Edward Jenner			
3. **Renaissance public health**	• Changes to towns and cities since medieval			
	• Causes and treatments of Great Plague (1665)			
	• Significance and impact of Great Plague			

NAME:

TOPIC		I can explain...	Red	Amber	Green
Part 3: Health in industrial Britain					
1. The 3 big killers of surgery	Pain	• Anaesthetics used and their issues (cocaine, ether, nitrous oxide)			
		• James Simpson and the discovery of Chloroform			
	Infection	• Pasteur's Germ Theory (1861)			
		• Lister and antiseptic			
		• Koch & Ehrlich			
	Blood loss	• Blood groups and blood transfusion			
2. Public Health improvement		• Living conditions for working-classes			
		• Social reformers (Chadwick, Bernardo, Farr and SouthwoodSmith)			
		• Cholera outbreaks (1831, 1848)			
		• John Snow			
		• First Public Health Act (1848)			
		• Second Public Health Act (1875)			
		• Why did governments move away from Laissez-faire?			

TOPIC	I can explain...	Red	Amber	Green
Part 4: Health in modern Britain				
1. Medical developments in modern Britain	• The discovery and impact of Penicillin (Fleming, Florey and Chain)			
	• Impact of World War One on medical improvement			
	• Impact of World War Two on medical improvement			
	• Development of drugs in 20th century			
	• Growth of alternative medicines			
3. Public Health improvement	• The Liberal Reforms (need for it, elements of it, response to it)			
	• The creation of the Welfare State			
	• Creation of the NHS			

Part 1: Medieval medicine – medicine stands still

Key people

Ancient Greece and Rome

Hippocrates
Created the Theory of the Four Humours and believed in observing the body to get a diagnosis

Galen
Developed the theory of Four Humous. Dissected animals to understand the human body and proved the brain controlled the body. His ideas were favoured by the Medieval Church.

Medieval European

John Arderne
Battlefield surgeon. Believed in the importance of bedside manner and trusting judgement. Relied less on Galen and Hippocrates.. Developed cauterising ointment which improved surgical survival rate to 50%

Roger Bacon
Franciscan monk and lecturer at Oxford University. Arrested around 1277 for spreading anti-Church views after questioning the work of Galen.

Medieval Islamic

Al-Razi (Rhazes)
Stressed the need for careful observation of the patient and distinguished between Smallpox and measles. Followed Galen but believed the student should improve the work of the teacher.

Ibn Sina (Avicenna)
Wrote *Cannon on Medicine*, covered all ancient Greek and Islamic medicine at the time. Over 1 million words long. Contained chapters on anorexia and obesity. Standard medical text book in the west until the 17th century.

Key words

Amulet	A charm that brought protection from disease
Apothecary	A medieval pharmacist or chemist
Astrology	Study of the planets and their effect on humans
Autopsy/ Dissection	To cut open a human and examine the insides /look for the cause of death
Barber Surgeon	Untrained surgeon, but done apprenticeship, who practised basic surgery
Black Death	A term to describe the bubonic plague
Cauterise	To burn a wound with a heated instrument or caustic substance to stop bleeding or prevent infection
Cupping	Using glass cups to draw blood to the surface
Epidemic	A widespread outbreak of a disease
Fasting	To avoid eating or drinking
Leeching	The use of leeches for bloodletting
Medieval Church	Roman Catholic faith. Daily life and power was dominated by the Church, they controlled education and many people feared God.
Miasma	Bad air which was blamed for spreading disease
Mortality	Death rate-usually measured per 1,000 of the population
Physic garden	Garden used solely for growing herbs to treat illness
Physician	A male medically trained doctor
Pilgrimage	A journey to a religious shrine to cure an illness
Purging	To rid the body of an 'excess' like blood or vomit
Superstition	A belief, not based on knowledge, but on the supernatural. For example witchcraft or astrology
Trepanning	Cutting a hole in the skull to release pressure
Urine Chart	Used to examine urine to define an illness
Vademecum	A medieval medical book carried by doctors
Wise Woman	A female healer, who used folk medicine and herbal remedies

Key events

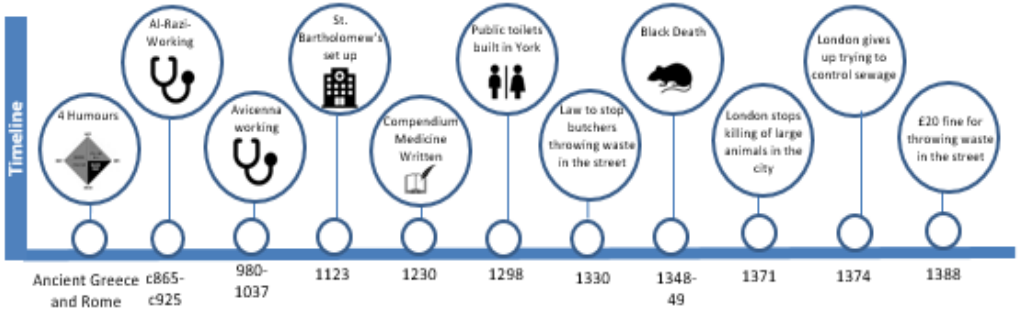
Influence of Hippocrates and Galen
Nearly a thousand years after the fall of Rome, medicine in Europe had regressed and returned to a more primitive outlook. Treatments continued to be a mixture of herbal remedies, bleeding and purging, and supernatural ideas. Most doctors still believed the Greek theory from Galen, a doctor during the Roman Empire, that you became ill when the 'Four Humours' - phlegm, black bile, yellow bile, blood - became unbalanced. During the medieval era dissection of human bodies was banned so doctors didn't properly understand what went on inside the body

Causes of disease
- Medieval doctors ideas about disease were governed by superstition and religion. For example, the will of God, the stars, demons, sin, bad smells, charms and luck, witchcraft or astrology.
- During epidemics, people would blame witches, nobility or groups who were culturally different such as Jewish people, and attack them

The Black Death
- Doctors were powerless to stop it killing half the population. There were both supernatural and natural explanations for it, for example, some people said that God had sent it as a punishment, others that the planets were in the wrong conjunction, or that it was caused by 'foul air'.
- The impact of this epidemic was long lasting. Crops rotted in fields, village animals escaped, the economy crashed. Laws were passed to try and restore order. The Statute of Labourers (1351) put limits on wages to keep the feudal system in order.
- Land owners switched to sheep farming, further increasing food shortages and reducing the number of jobs available.

Treatments
- Treatments were varied. Some are now seen as successful, those that relied on herbal remedies have now been prove successful. Others were less so, for example;
  - bleeding, applying leeches, smelling strong posies or causing purging or vomiting
  - cutting open buboes, draining the pus and making the patient hot or cold, eg by taking hot baths
  - trepanning - cutting a hole in the skull
  - praying, or whipping themselves to try to earn God's forgiveness
  - lighting fires in rooms and spreading the smoke, tidying rubbish from the streets and banning new visitors to towns and villages

Surgery
- There was some progress in the area of surgery. The Middle Ages was a time of constant warfare, so surgeons got lots of practice and:
  - realised that wine was a mild **antiseptic**
  - developed a range of painkillers, including opium
  - Medieval surgeons were very good at practical first aid and even attempted some internal surgery. They could:
  - heal wounds with honey and vinegar and mend broken bones
  - carry out external surgery on problems like ulcers and eye cataracts
  - carry out internal surgery such as bladder stones



Public Health

Governments and Kings took no responsibility for public health. It was left largely to the local governments to make laws and intervene. It used to be thought that medieval towns were filthy, without drains, sewers or rubbish collections. Some of this was true as it was a struggle to keep town clean. However, modern historians have found out that:
- Parliament passed the first law requiring people to keep the streets and rivers clean in 1388.
- Medieval people washed and exercised. Many towns had bath houses.
- Towns paid 'gong farmers' to clear out human waste from cesspits.
- Many towns had quarantine laws, boarded up the houses of plague victims, and isolated people with leprosy in 'lazar houses'.
- Monasteries had running water and good toilet facilities.
- Hospitals were built e.g. St Bartholomew's in London in 1123.

Nowadays, historians think that medieval towns were not as dirty as Early Modern towns – but the sights and smells of a medieval town would still probably have made you feel sick.

Use the QR codes to access Seneca

Hippocrates

Galen

Hippocrates and Galen

1. Research and create small profiles on Hippocrates and Galen. This should include;
   - Their contribution to medicine
   - Their beliefs about medicine
   - Who they were supported by

Hippocrates	Galen

2. Annotate the drawing of the four humours. This should include what each area represents, which element that matches with and how this influences treatment.

The Four Humours

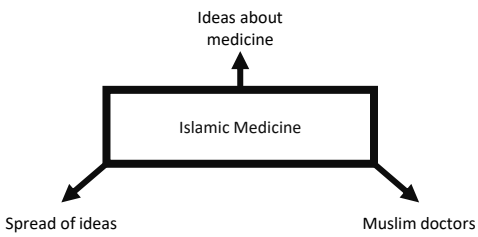
Medieval Surgeons

3. Match the medieval surgeon with the correct information about him.

Name	Key information
John of Arderne	Led the interest in anatomy; his book Anathomia became dissection manual
Al Rashid	Wrote the influential surgical textbook Great Surgery which quoted Galen 890 times
Hugh of Lucca and his son Theodoric	Wrote a medical encyclopaedia
Mondino de Luzzi	Founder of the 'Guild of Surgeons' and produced a book Practica; specialised in removing anal absesses
Abulcasis	Set up a new hospital in Baghdad with a medical school and library
Avicenna	Created a 30-volume medical textbook, invented 26 medical instruments and popularised cauterising
Guy De Chauliac	Argued that pus wasn't needed to heal wound; used wine to reduce infection rate

Islamic Medicine

4. Complete the spider diagram about the influence and growth of Islamic medicine.



Exam practise

Explain the significance of Islam on the development of medicine

(8 marks)

Use the QR codes for further information

Seneca

BBC Bitesize

Use the QR codes for further information

YouTube

Seneca

Christianity and Medicine

5. Complete the table with information on both how Christianity helped advance medicine, and hindered medical progress.

Helped	Hindered

Medieval Treatments

6. Write your own definition of these key words

Cauterising _____
_____

Trepanning _____
_____

Herbal medicine _____
_____

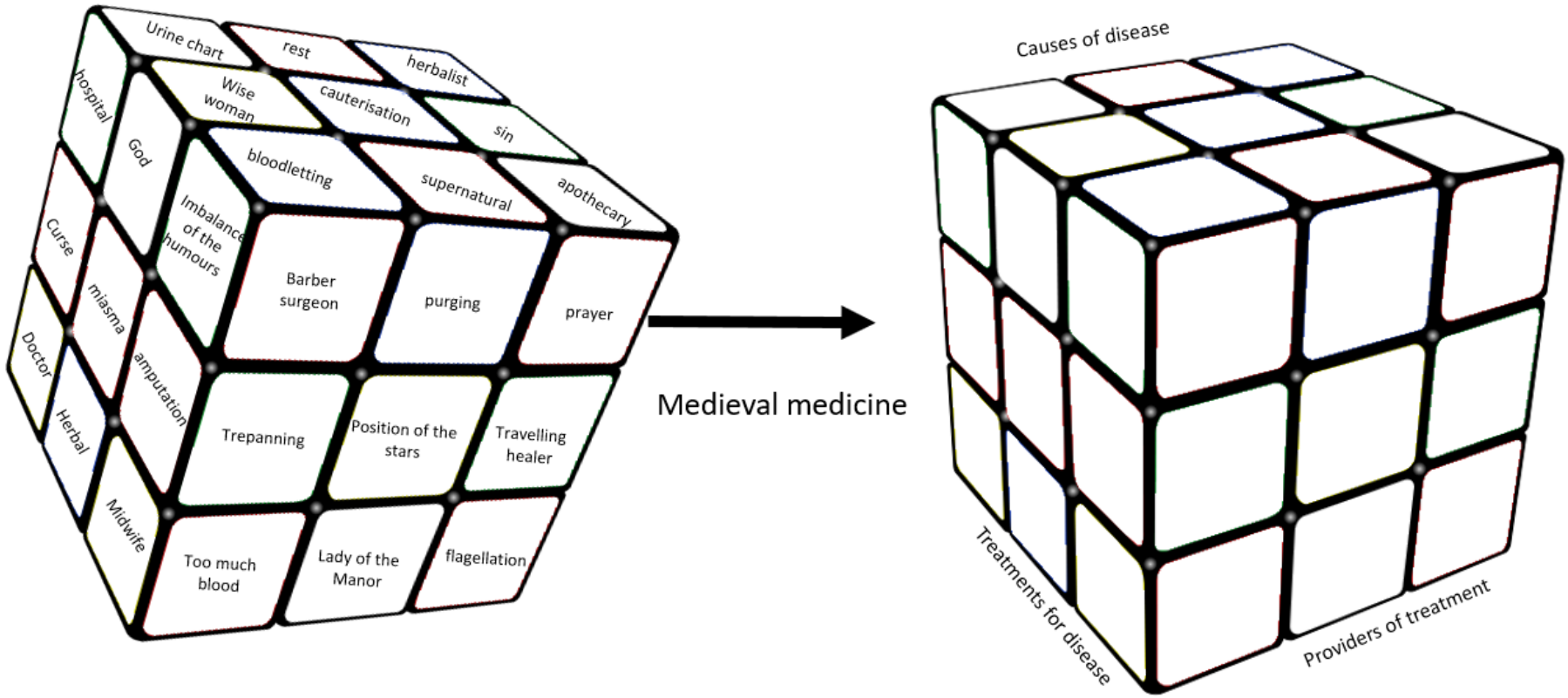
Blood letting _____
_____

Purging _____
_____

7. For each person who provided medical assistance, write a description of their job, a positive and a negative.

Person	Description	Positive	Negative
Doctor			
Wise woman			
Barber surgeon			
Midwife			

1. Look at the Rubik's Cube. Make sure you know what all the words mean.
2. Work out which words answer the three questions and colour code them on the left hand cube. On the right hand cube, right the words in the correct section.
3. Write a paragraph about any of the three areas, using **all** the keywords.

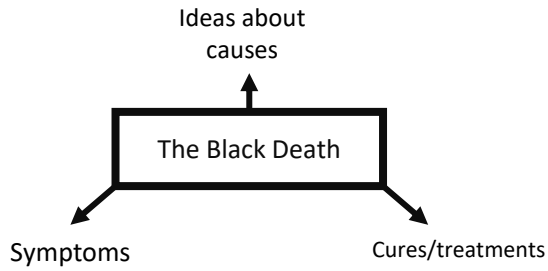


Write your paragraph including **all** keywords here

8. Summarise each source in your own words.

Source A Almost all the floors are of clay and rushes from the marshes, so carelessly renewed that the foundation sometimes remains for twenty years, harbouring there below, spittle and vomit and urine of dogs and men, beer that hath been cast forth, remnants of fishes and filth unnamable. *Taken from a letter by Erasmus, a Dutch visitor to England, in 1524, describing the floors inside houses.*	
Source B Item, that so much dung and filth of the garbage and entrails be cast and put into ditches, rivers, and other waters... so that the air there is grown greatly corrupt and infected, and many maladies and other intolerable diseases do daily happen... it is accorded and assented, that the proclamation be made as well in the city of London, as in other cities, boroughs, and towns through the realm of England, where it shall be needful tha all they who do cast and lay all such annoyances, dung, garbages, entrails, and other ordure, in ditches, rivers, waters, and other places aforesaid, shall cause them utterly to be removed, avoided, and carried away, every one upon pain to lose and forfeit to our Lord the King [the sum of 20 pounds... *Parliamentary statute of 1388.*	

9. Complete the spider diagram.



Impact of the Black Death

About 33% of Wales and England's population died. It took 250 years for the population to recover.	New medical discoveries and artistic ideas would later bring about a rebirth of culture.	Less tax meant Kings had to think twice before going to war as it was too expensive. So, tax increased a lot.
New religious groups were set up, e.g. the Lollards who criticised the Catholic Church.	Creative works (paintings, murals etc) became morbid, with the image of death everywhere.	Many Churches closed down. It was hard to find enough people to take over the jobs of priests.
The feudal system collapsed. Peasants could leave their village to find work' land and freedom elsewhere.	Wages increased by 400% after the disease. Workers could demand more as fewer of them were alive.	Some villages, like Wharram Percy, never recovered from the disease, and were left abandoned.
Women had new job opportunities.	Poor people's clothing improved.	Poor people's diets improved.
Peasants' attitude towards authority changed. They believed they could stand up to authority as God had spared them.	Some people thought the disease could return any day, so they lived a wild life. They drank, threw parties and lived carelessly.	Medical knowledge improved as doctors were allowed study corpses. People began to understand how the human body worked.
Lords saw the value of their land decrease. They lost a lot of money.	Harsh laws tried to stop the freedom and improvements of peasants' lives.	Officials slowly realised that towns and cities had to be cleaner in future.

- ☐ - Political consequence (involving laws and government)
- ☐ - Social consequence (regarding people and society)
- ☐ - Religious consequence (involving the Church and faith)
- ☐ - Economic consequence (involving money and the economy)

Exam practise

How useful is source A to a historian studying the Black Death?

(8 marks)

Cornell Notes: Medieval Medicine

Use this Cornell Notes page to summarise your learning on medicine in Medieval England. Use your notes and activities from the previous pages. Use the titles for each section to help you organise your ideas.

Key words and questions Write them out here and test yourself	**Note taking** Make notes/diagrams on the key features of medicine in Medieval England

Summary

Summarise your key points into essential bullet points

Need a hand?

YouTube

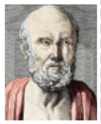
BBC Teach: Medieval medicine overview

Seneca: Medieval medicine course

Quizlet: Medieval medicine flashcards

Britain: Health and the People c1000 to the present day. Part 1: Medicine Stands Still

Hippocrates



Time Period:

What did he do?

What was his impact on medicine?

460-370BC

129-210AD

Galen

Time Period:

What did he do?

What was his impact on medicine?

Dark Ages 450AD – 1066AD
Loss of knowledge after the fall of the Roman Empire

Al Razi (Rhazes)

Religion:
What did he do?

What was his impact on medicine?

865-925

980-1037

Ibn Sina (Avicenna)

Religion:
What did he do?

What was his impact on medicine?

Impact of Christianity

Impact of Islam

The Black Death 1348

Beliefs about causes:

Real causes:

Treatments:

1000

1100

1200

1300

1400

Medieval Period

What did a medieval doctor know?

Medieval Public Health	
Towns	Monasteries

Impact of the Black Death

Short Term:

Long Term:

1351 – Statute of Labourers

Key features of medieval surgery:

Factors for change in medicine:		
Role of individuals.	**Luck/Chance**	**Warfare**
Religion	**Government**	**Technology**

Branches of medicine		
Treatment of disease. (ToD)	**Surgery (S)**	**Public Health (PH)**

Part 2: The Renaissance – the beginnings of change

Key people

Surgeons

Ambroise Pare
Army surgeon. Made a new mixture to cauterise wounds and found it to be much more effective than hot oil. Also used Galen's methods with ligatures to tie-off wound after amputation rather than cauterise. Later helped to develop artificial limbs.

Andreas Vesalius
Trained at Paris and Padua. Carried out his own dissections and believed anatomy was key to understanding how the human body works.

John Hunter
Most famous as a teacher of anatomy and strong belief that deep wounds should be left as much as possible for nature to heal.

William Harvey
Discovered circulation and wrote *An anatomical account of the motion of the Heart and Blood.*

Physicians

Edward Jenner
Developed vaccination for Smallpox from the Cowpox virus

James Lind
Discovered a cure for Scurvy (killed more sailors than war). Used Vitamin C form lime juice

Nicholas Culpepper
Published his *Complete Herbal*(Which is still in print today) to help ordinary people. It was written in English, not Latin.

Thomas Sydenham
Known as the English Hippocrates. Based his treatments on observation of the whole person and minimal intervention.

Other notable people

Lady Johanna St. John
Lady of the manor who looked after local people and compiled recipes for herbal cures.

Leonardo Da Vinci
Artist who studied the human body and corpses to help him draw accurately. He also used dissection to see how muscles worked.

Key words

Anatomy	The study of the human body and how it works
An Essay on Health and Long Life	George Cheyene published in 1724 and argued that people should take responsibility for their own health.
Continuity	Things or ideas that stayed the same over time
Inoculation	Introducing a mild form of disease through a small scratch on the body to make the person immune to that disease.
Laissez-Faire	Style of government. To not interfere in peoples lives
London Treacle	A medicine that was solve to cure the Plague. It contained herbs, spices, honey and opium
Mortality Bill	A document in each parish in London which recorded who had died and what had killed them.
Pesthouse	A hospital for people suffering from infectious diseases, e.g. the Plague.
Physiology	The workings of the body
Quack	Sold medicines fully understanding they did not do what they said they would.
Renaissance	– this was a time of change (re-birth) when people became interested in all things Greek and Roman.
Royal College of surgeons	Had to have a licence to practise surgery, you couldn't practise within 7 miles of London without one. Marks the start of the regulation of surgeons.
Royal Society	A group of people interested in science who met weekly. They had a laboratory with microscopes. King Charles II was a patron.
The King	People still believed that the King could cure diseases such as **scrofula** (a skin disease). Being touched by the King was as close as you could get to being touched by God.
The Midwives Book	Written by Jane Sharp Combined medical knowledge with an argument that only women should be midwives
The Printing Press	Introduced to England by William Caxton enabled the more rapid spread of ideas across Britain.
Vaccination	Injection of a mild form of disease to give immunity to that disease

Key events

Causes of disease

There were some connections being made between dirt and disease. This was seen in the way the Plague was responded to. The keeping of large animals in London was banned, as was the assembly of large crowds at events such as plays.

Treatments

During this time, there were significant scientific discoveries such as William Harvey's discovery of the circulation of the blood in 1628, and Anton van Leeuwenhoek's observation of bacteria in 1683. However, despite these discoveries:

- doctors still did not know that germs caused disease – until the middle of the 19th century, they blamed a 'miasma' (a bad smell)
- doctors were too expensive for most people

Many people resorted to using quack doctors (someone without real medical knowledge or qualifications.
New drugs/herbs came from newly discovered lands like America. For example, Tobacco. It was prescribed for everything from wind to snake bites. A lot of treatment was about making the room and the patient smell nice. They also continued odd superstitions like touching the King to cure Scrofula.

Surgery

There was some progress in surgery on a 'trial-and-error' basis.
Ambroise Paré's *Treatise on Surgery* (1564) published his ideas on how surgeons should treat wounds and amputations. Paré also invented surgical instruments and the first artificial limbs. The discovery of circulation by Harvey and the increased accuracy of anatomical drawings pioneered by Vesalius increased understanding of what was inside the body. The problem was that there was no anesthetic or antiseptic. As such, death rate was still high.

Public health

In the area of public health, however, many historians believe that conditions in Early Modern times were worse than medieval times as towns were larger.

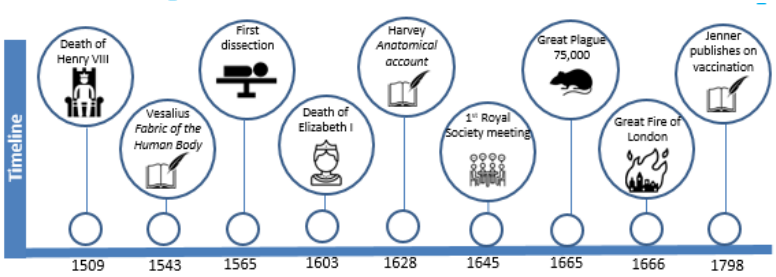
- People did not take much care of their personal cleanliness – **Queen Elizabeth I** bathed four times a year, whether she needed it or not.
- Towns were filthy and rubbish and human waste was thrown into the streets.

However, it would be wrong to think that people did not care about dirt and disease:

- Henry VIII insisted that everyone at court was healthy, and courtiers were sent away even if they had a cold.
- Although people thought bad smells caused disease, this led them to do things which improved health – eg cesspits were cleared regularly, and housewives spent a lot of time boiling underclothes, to keep them smelling nice.
- The Government provided funding for the work of Edward Jenner. This funding pushed forward the work on vaccination. It was also the first time the government passed direct laws about people's health.

Hospitals

There was a boom in hospital building. Five new hospitals were added to the existing 2 in London and nine more were built throughout the country. Most of these hospitals had a religious or charitable supporter behind them. It was about getting into heaven rather than actually driving medicine forward.
There was also a move towards specializing hospitals. Some focused on women and children for example. There were those who started to use hospitals as centres of learning.



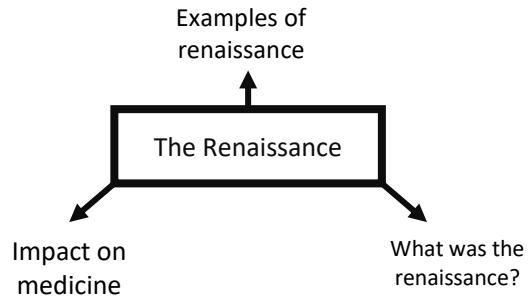
Use the QR codes for further information

Seneca

YouTube

12. Complete the spider diagram.

The Renaissance

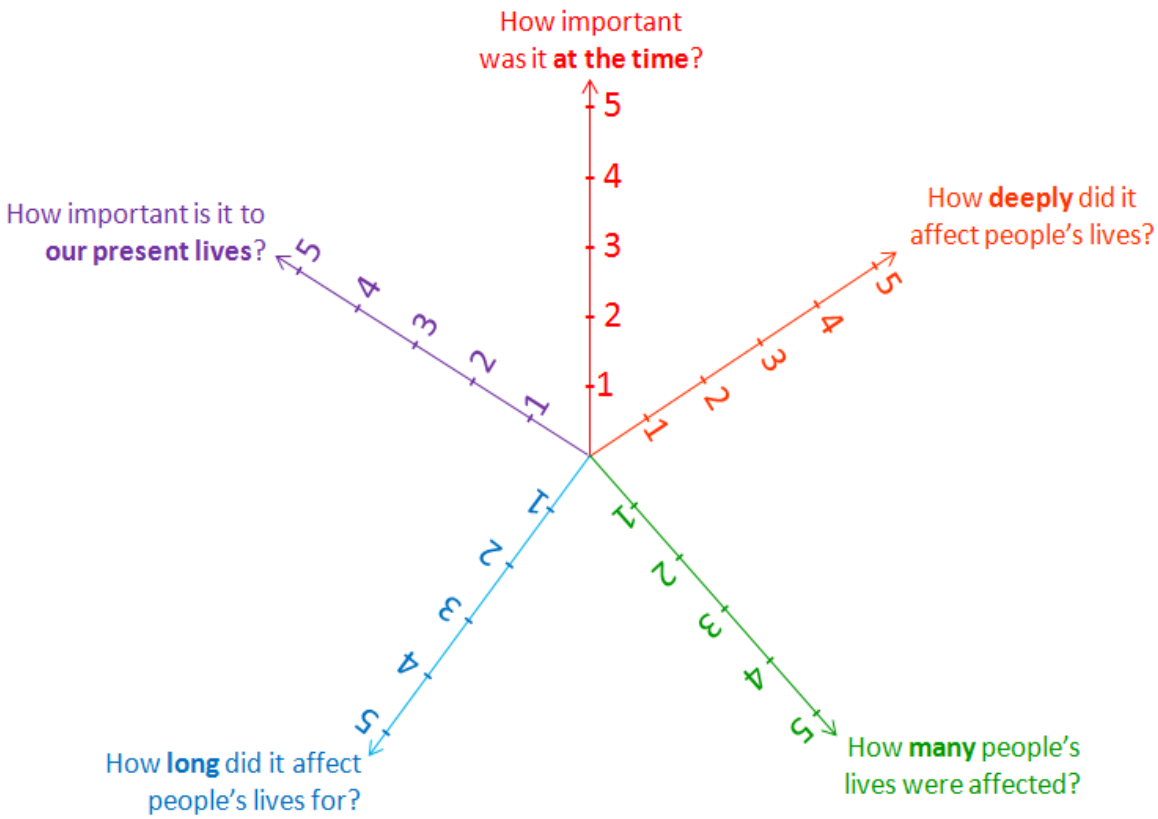


13. Complete the table about each of the 4 renaissance surgeons..

Renaissance Surgeons

Name	Impact on medicine	Influence of other people	Draw a symbol to represent
Andreas Vesalius			
Ambroise Pare			
William Harvey			
Thomas Sydenham			

14. Complete the significance radar for each of the renaissance surgeons.



Significance of Renaissance Surgeons

15. Rank the Renaissance surgeons in terms of impact. Who had the biggest impact on medicine? Why?

Most important

Least important

Importance	Name	Why?
1		
2		
3		
4		

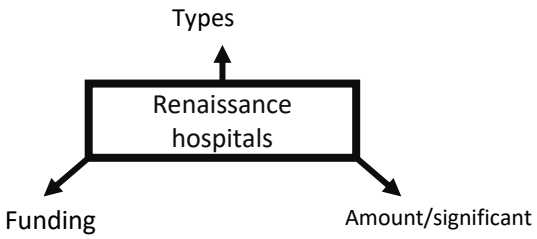
16. Write your own definition of these key words

Quakery_____
_____

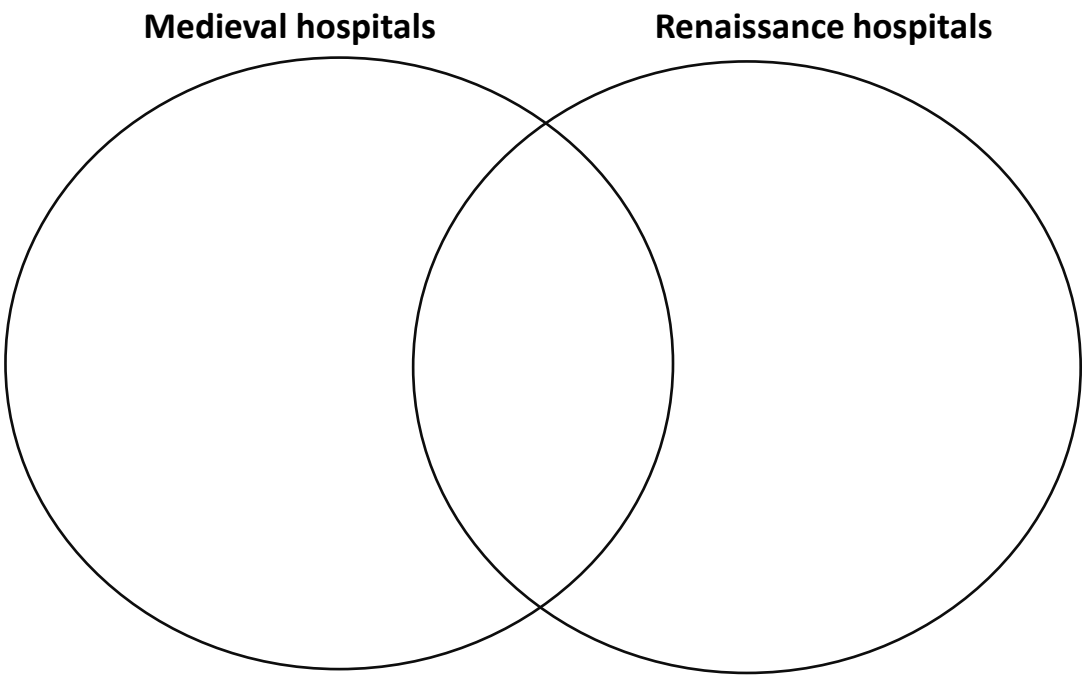
Foundling hospital_____
_____

Herbal medicine _____
_____

17. Complete the spider diagram



18. Complete the similarity Venn diagram



Exam practise

Compare hospitals during the Renaissance and Medieval era. How are they similar?
(8 marks)

Use the QR codes for further information
Seneca
BBC Bitesize

Use the QR codes for further information

Seneca

YouTube

19. Complete the gaps in the text using the bank of words at the bottom.

The Great Plague, 1665

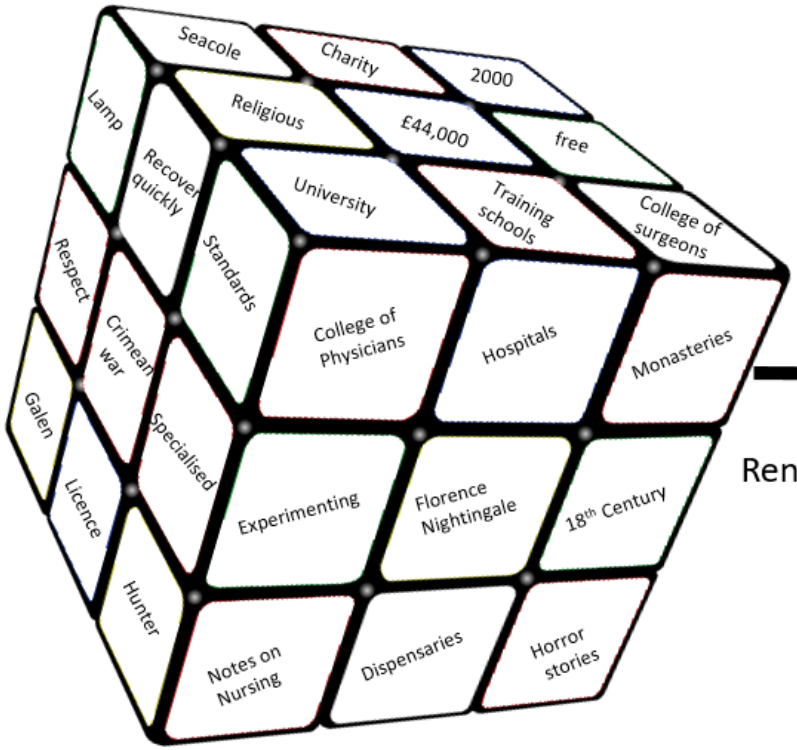
In _____, around _____ people died of the Plague in _____ - nearly _____ of the population. Most doctors _____ as they feared for their lives. _____ people left the city and went to the _____. People had lots of theories about its causes, and noticed the _____ and _____ parts of London were more affected. The _____ and the _____ introduced measures to try to prevent the spread of the disease, including _____ dogs and cats, lighting _____ to get rid of 'bad' air, and saying public _____ twice a week.

country 25% dirtier 100,000 fled Mayor fires 1665 London killing wealthy poorer King prayers

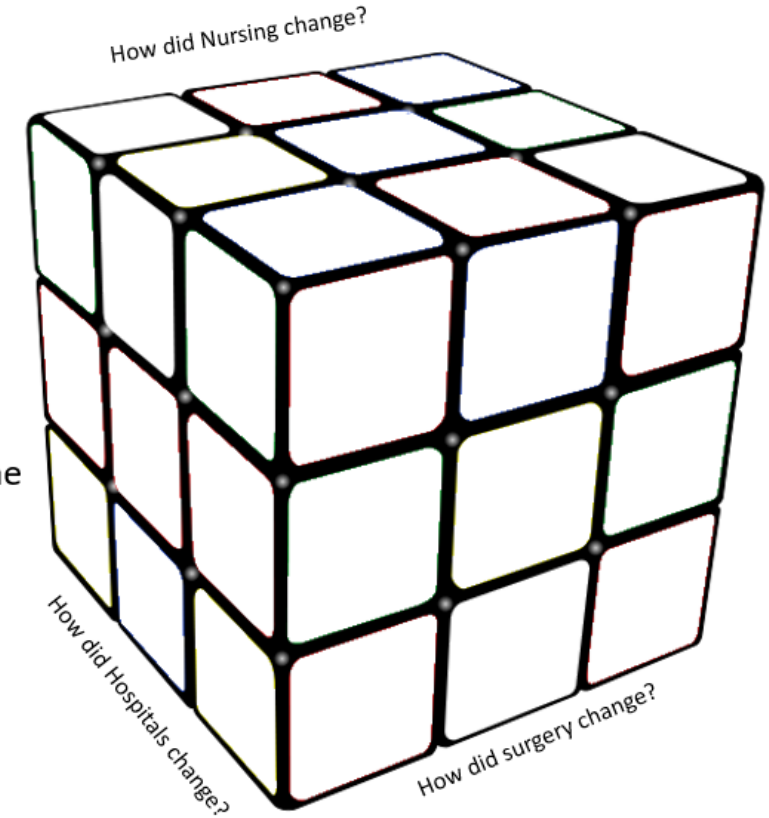
Great Plague (1665)

20. Annotate the source below about the Great Plague, 1665. In one colour, identify what you can see. In a second colour, add specific historical detail to your notes.

1. Look at the Rubik's Cube. Make sure you know what all the words mean.
2. Work out which words answer the three questions, colour code each category and write them on the correct side of the cube.
3. Answer the following questions a) How important were individuals in the Renaissance period b) How significant was the discovery of vaccination c) What is the renaissance?



Renaissance medicine



a)

b)

c)

Use the QR codes for further information

Seneca

YouTube

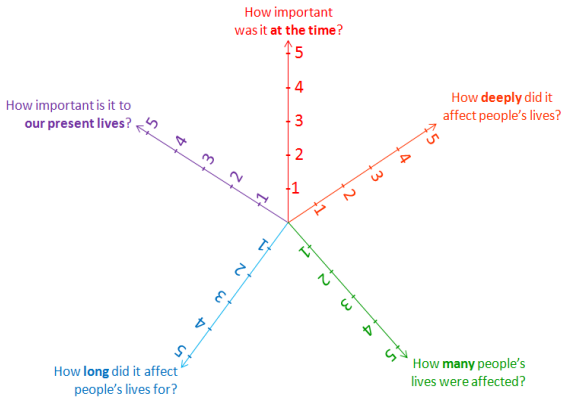
22. Create a storyboard telling the story of Edward Jenner's discovery of vaccination. It should include;

- How he discovered
- What he found
- How it impacted people
- Why people opposed it

Edward Jenner and the Smallpox Vaccination

Edward Jenner

23. Complete the significance radar for Edward Jenner



Exam practise

Explain the significance of Edward Jenner for the development in medicine.

(8 marks)

Cornell Notes: Renaissance Medicine

Use this Cornell Notes page to summarise your learning on medicine in Renaissance England. Use your notes and activities from the previous pages. Use the titles for each section to help you organise your ideas.

Key words and questions Write them out here and test yourself	**Note taking** Make notes/diagrams on the key features of medicine in Renaissance England

Summary

Summarise your key points into essential bullet points

Need a hand?

YouTube

BBC Teach: 16th and 17th century medicine overview

Seneca: Renaissance medicine course

Quizlet: Renaissance medicine flashcards

Britain: Health and the People c1000 to the present day. Part 2: The beginnings of change.

c.1400 – The Renaissance

Impact of the Renaissance on Britain

Name meaning:

This was a time of:

This meant that old ideas (Hippocrates and Galen) were...

Andreas Vesalius 1514-1564

What did he do?

What was his impact on medicine?

Ambroise Pare 1510-1590

What did he do?

What was his impact on medicine?

William Harvey 1578-1670

What did he do?

What was his impact on medicine?

Growth of Hospitals 1719-1779

Examples of new Hospitals.

Features of new Hospitals:

Hospital Boom:

John Hunter 1728-1793

What did he do?

What was his impact on medicine?









1400 1500 1600 1700









Invention of Printing Press 1451

The Dissolution of the Monasteries – 1530s

Key person:

What happened:

Impact on health:

The Great Plague 1665

Causes: Beliefs about causes:	**Treatments:** Superstitious:
Real causes:	Rational:
Why did the Great Plague end?	**Impact on public health**

Edward Jenner 1749-1823

What did he do?

What was his impact on medicine?

Renaissance – traditional and new treatments.

Traditional treatments:	New treatments:

Factors for change in medicine:

Role of individuals.	**Luck/Chance**	**Warfare**
Religion	**Government**	**Technology**

Branches of medicine

Treatment of disease. (ToD)	**Surgery (S)**	**Public Health (PH)**

Part 3: The 19th century – a revolution in medicine

Key people

Men

Edwin Chadwick
Used statistics to prove the link between ill health and poverty. 1842 published *Report on the Sanitary Conditions of the Labouring Population*. In which he argued that improvements in public health would be essential to the continued growth of the economy.

Dr Barnardo
Appalled by east end poverty, he set up a 'Ragged School' to train boys and girls to help them find work when they left school.

John Snow
Epidemiologist who focussed on battling Cholera. He is most famous for his work on the Broad Street Pump.

Louis Pasteur
Discovered Germ Theory. In 1861. His work took time to reach its potential but when it did, his ideas replaced miasma theory and led to much development in sanitation and surgery.

James Simpson
Credited with the discover of anaesthetics . His work led to the use of Chloroform in surgery.

Joseph Lister
Credited with the discover of antiseptic surgery using carbolic acid to clean the operating area.

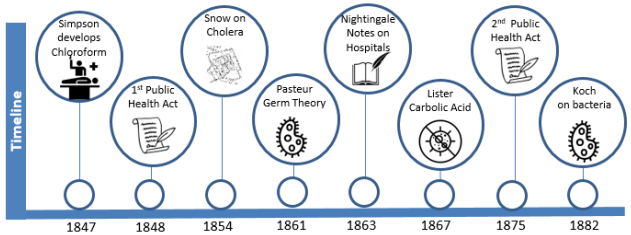
Women

Mary Seacole
British-Jamaican nurse who independently travelled and set up the "British Hotel" behind the lines during the Crimean War for sick and convalescent officers and servicemen. Historically, overshadowed by Florence Nightingale.

Florence Nightingale
British nurse who travelled to the Crimean War to provide care for wounded soldiers. She became a writer on medical issues and wrote two books. Notes on Nursing and Notes on Hospitals.

Elizabeth Garrett Anderson
Female medical pioneer. Faced adversity to become the first female medical doctor. Gained membership of the British Medical Association in 1873.

Sophia Jex-Blake
Managed to get in and train in Edinburgh as part of the 'Edinburgh Seven'. Marks a turning point in some male attitudes.



Key words

Anaesthetic	Drugs given to make someone unconscious
Antiseptic	Chemicals used to destroy bacteria and prevent infection
Aseptic surgery	prevent contamination from pathogens. strict rules to minimize the risk of infection
Bacillus	Bacteria that cause disease
Breakthrough	A scientific discovery that dramatically alters the way people understood disease – e.g. the discovery of bacteria. This then helps the problem to be solved.
Cholera	A bacterial infection caused by drinking water
Chloroform	A liquid whose vapour acts as an anaesthetic and produces unconsciousness
Contagion	The passing of disease from one person to another
Dispensary	A place where medicines are given out
Epidemic	A widespread outbreak of a disease
Germ Theory	The theory that germs cause disease rather than the prevalent belief that disease causes germs.
Industrial Revolution	A period of British history when industries (e.g. coal, steel) transformed societv
Medical Officer	A person appointed to look after the public health of an area
Public Health	When the government takes measures to prevent diseases spreading and to help the population become healthier.
Sanitation	Providing disposal of human waste and dispensing clean water to improve public health
Serum	Part of the blood that can be separated out and used to provide immunity from a specific disease
Sterile	Totally clean; free from bacteria or other living organisms
Voluntary hospital	Hospitals supported by charitable donation
Workhouses	Accommodation for poor people who could not afford to pay for rent and food.

Key events

Causes of disease

This was a turning point for knowledge in this area. In 1861, Germ Theory was developed by Pasteur. This was slow to take off but ultimately replaced miasma theory and led to significant developments in the understanding of infection and consequently increased the safety of surgery. This work also led on to an understanding that individual microbes cause individual diseases. Koch and Ehrlich were instrumental in this work.
Germ Theory was not accepted quickly. This did hold back progress but the idea did eventually catch on.

Treatments

Although understanding of disease was developing, treatment was not as fast. Many every day treatments remained the same as in the previous period. Work was being done to identify disease, but work to treat was several steps behind. Many Quack remedies continued to exist and the availability of money continued to determine what standard of medical care you could access. Vaccinations did continue to develop, smallpox vaccine was compulsory and anthrax and rabies vaccines were developed.

Surgery

From 1840 onwards surgery turned a corner as a result of two key discoveries.

- Anaesthetics were developed. Largely due to the work of Simpson. His work led to the discovery of Chloroform. This was after several other substances had been tried, for example Nitrous Oxide. The discovery of Anaesthetic allowed more complex surgery and slower surgery, resulting in more accurate surgery.
- Antiseptics were also developed in this period. Lister's work on Carbolic Acid led to the eventual use of sterile operating environments. It also led to the development of Aseptic surgery, still in use today.

These two combined greatly reduced the death rate in surgery and increased the ability of medicine to intervene.

Public health

- 1848 was the first time a Public Health Act was passed. This provided for all sorts of improvement including the appointment of medical officers, however, it was not compulsory.
- In the 1860s Bazlegette started the creation of London's first organized sewage system. Parts of this system are still in use today.
- 1875 Second Public Health Act consolidated all that 1848 had attempted and made it compulsory. Councils were made to take responsibility for local issues.
- Outbreaks of Cholera dominated this period. The work of John Snow led to the connection of water to the disease. However, his work was pre Germ Theory and as such his ideas centered around water miasma. Despite this, his methods of studying and tracking disease became much more popular. The Epidemiological society was formed as a result. His methods of mapping disease are still used today.

Communication

During this period there was wide reading of theories and idea. Reports were published and used by subsequent physicians and researchers. For example, Jenner's work was read and used by others to develop further vaccinations. Pasteur's work was read and developed by many. For example, Lister read the work that Pasteur had published and used it to create antiseptic methods for surgery.

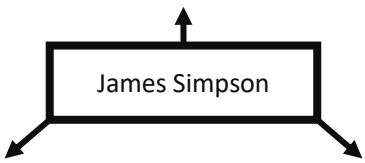
24a. Complete the table on different types of anaesthetic

Name	Positives	Negatives
Nitrous oxide		
Ether		
Cocaine		
Chloroform		

24b. Why did people question and doubt anaesthetic?

-
-
-

25. Complete the spider diagram



Exam practise

Explain the significance of anaesthetics in conquering pain during surgery.

(8 marks)

Use the QR codes for further information

Seneca

YouTube

Infection

26. Write your own definition of these key words

Germ theory_____
_____

Contagionsit_____
_____

Spontaneous generation_____
_____

Anti-sceptic _____
_____

27. For each of these events, give a short description of what happened.

Germ Theory

1861 – Pasteur's Germ theory

1876 – Koch and anthrax

1901 – Erlich and syphilis

Use the QR codes for further information

Seneca

YouTube

BBC Bitesize

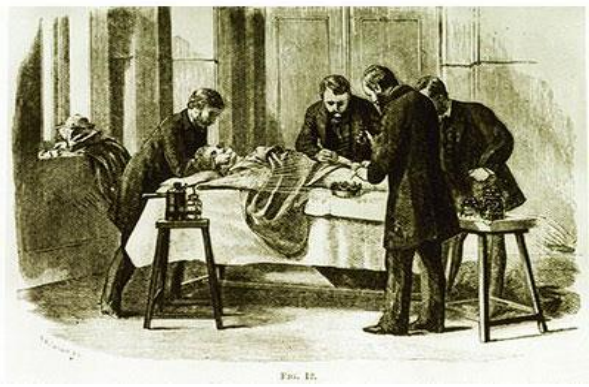
28. Complete the missing word.

The **magic bullet** was a scientific concept developed by a _____ Nobel laureate Paul Ehrlich in 1900. While working at the Institute of _____Therapy, Ehrlich formed an idea that it could be possible to kill specific microbes (such as _____) that cause diseases without harming the body itself. He named the hypothetical agent as the magic _____. He envisioned that just like a bullet fired from a gun to hit a specific _____, there could be a way to specifically target invading microbes. His continued research to discover the magic bullet resulted in further knowledge of the functions of the body's immune system, and in the development of Salvarsan, the first effective drug for _____, in 1909. His works were the foundation of immunology, and for his contributions he shared the 1908 Nobel Prize in Physiology or Medicine with Élie Metchnikoff.

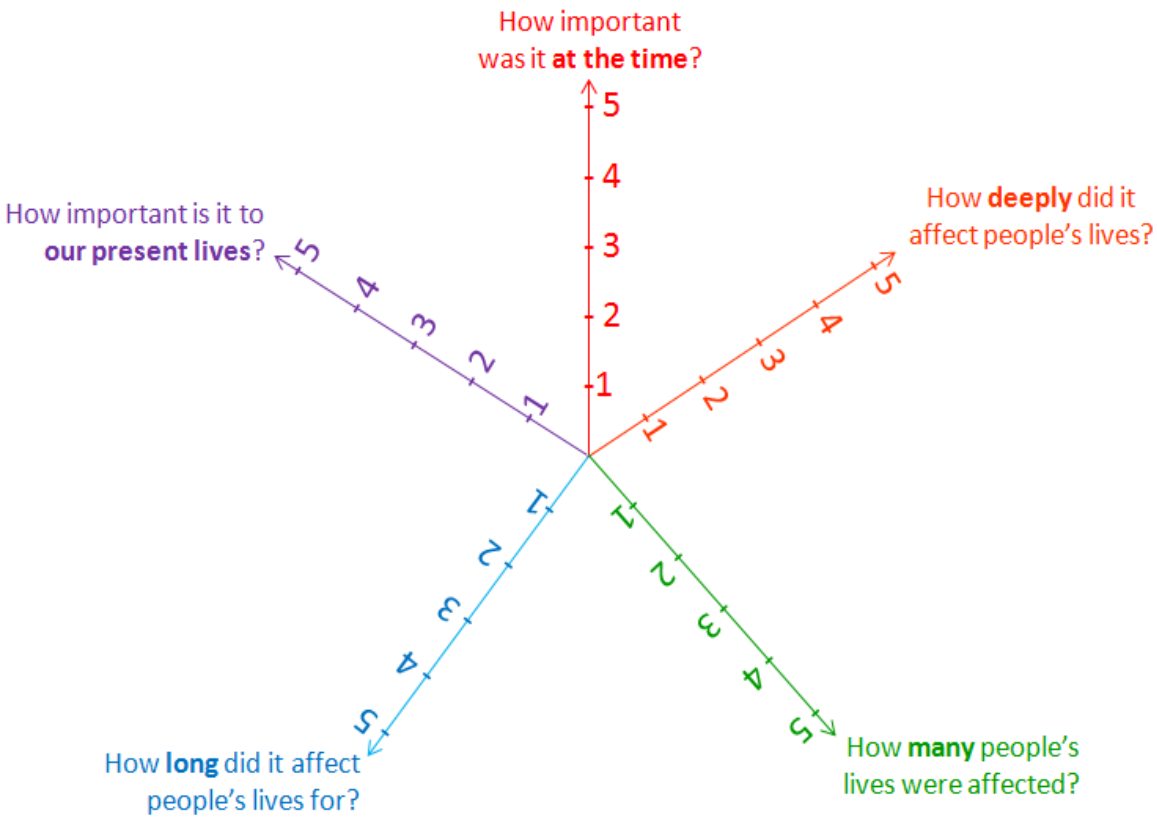
Word bank: Experimental , target, bacteria, German, bullet, syphylis

29.. Create a storyboard telling the story of how Joseph Lister discovered anti-sceptic

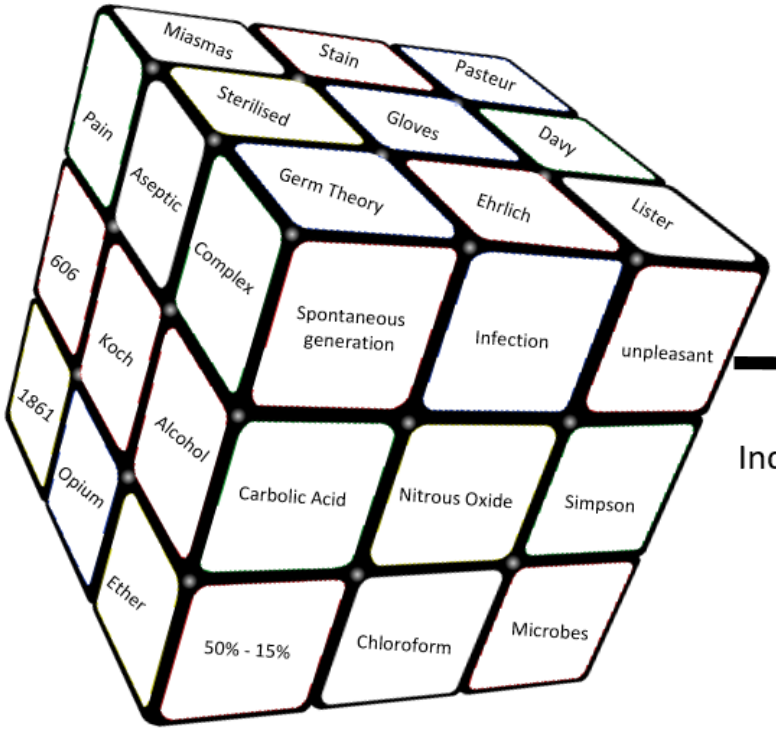
30. Annotate the image below to show how Lister used anti-sceptics in surgery.



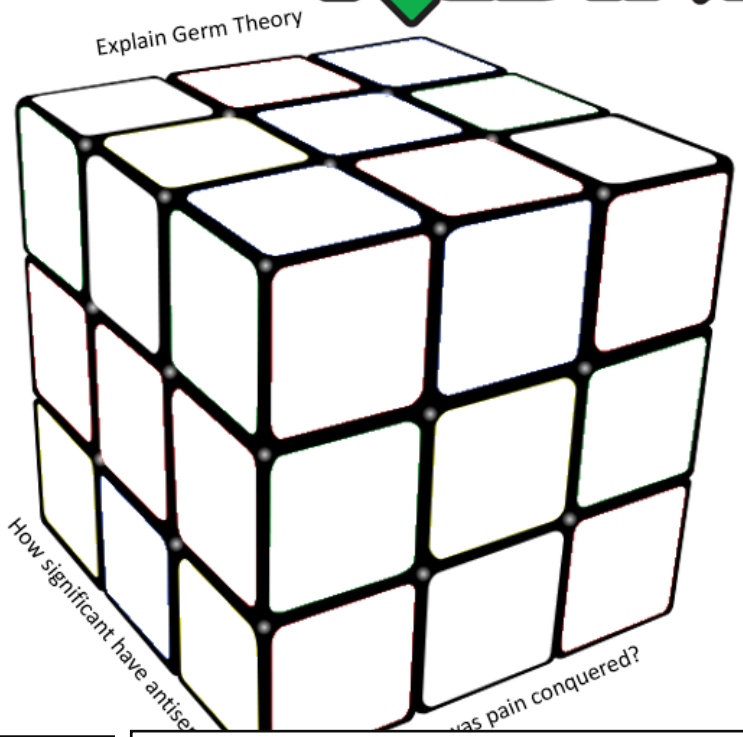
31. Complete the significance radar for each of the germ theorist. (Pasteur, Koch, Erlich, Lister)



1. Look at the Rubik's Cube. Make sure you know what all the words mean.
2. Work out which words answer the three questions, colour code the words and write them on the correct side of the cube.
3. Answer the 3 questions in detail on the back. Use as many of the keywords for each as you can.



Industrial medicine



Explain Germ Theory

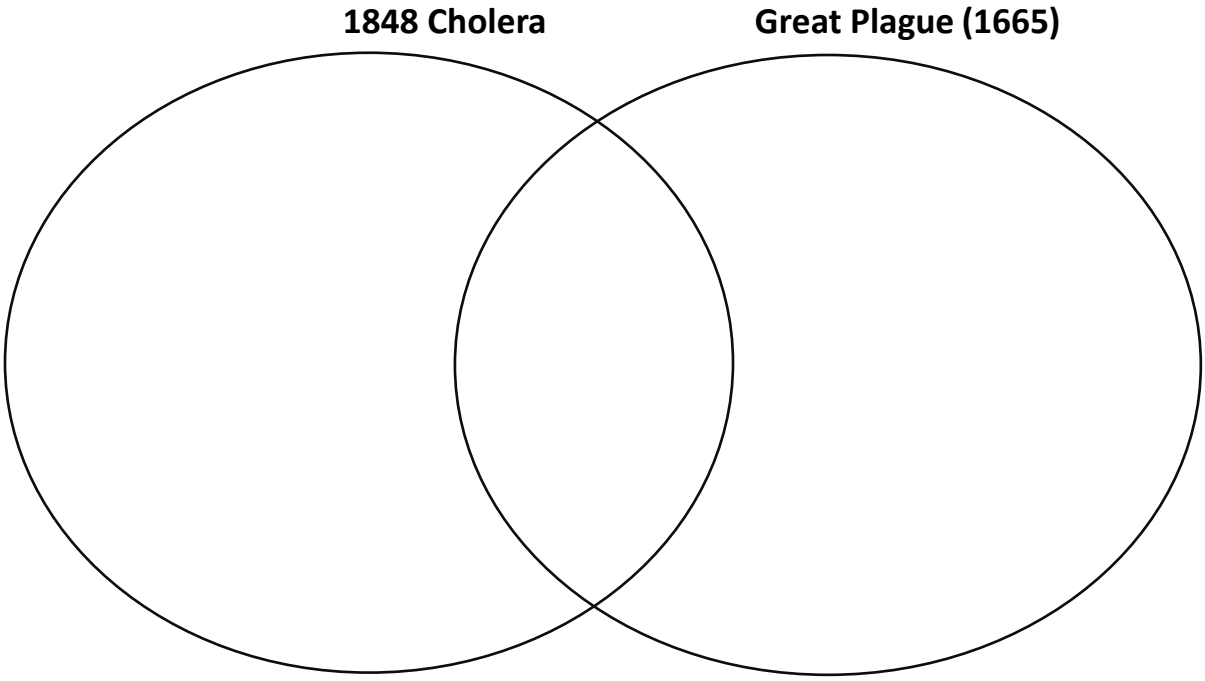
How significant have antiseptics been?

How was pain conquered?

33. Complete the table with specific accurate detail

Factor	Specific detail
1848 Cholera outbreak	
1848 Public Health Act	
John Snow	
1875 Public Health Act	

34. Complete the similarity Venn diagram



Exam practise

Compare the Cholera outbreak of 1848 and the Great Plague of 1665. How are they similar?

(8 marks)

Use the QR codes for further information

Seneca

YouTube

Cornell Notes: Industrial Medicine

Use this Cornell Notes page to summarise your learning on medicine in industrial England. Use your notes and activities from the previous pages. Use the titles for each section to help you organise your ideas.

Key words and questions Write them out here and test yourself	**Note taking** Make notes/diagrams on the key features of medicine in industrial England

Summary

Summarise your key points into essential bullet points

Need a hand?

YouTube

BBC Teach: 19th century medicine

Seneca: Industrial medicine course

Quizlet: industrial medicine flashcards

Britain: Health and the People c1000 to the present day. Part 3: A Revolution in Medicine

c.1800 – The Industrial Period

Developments in Anaesthetics.	
Nitrous Oxide	
Ether	
Chloroform	
Reasons for opposition to anaesthetics:	

James Simpson 1827-1912

What did he discover?

What was his impact on medicine?

Theories about

Spontaneous Generation	Contagionists

Understanding Germs and Disease

Germ Theory 1861

Factors in development of Germ Theory

Louis Pasteur

Impact on medicine:

Reasons for opposition:

Joseph Lister

Impact on medicine:

Reasons for opposition:

Robert Koch

Impact on medicine:

How did he build on Pasteur's work?

Reasons for opposition?

1800 1810 1820 1830 1840 1850 1860 1870 1880 1890


Industrial towns

Problems caused by:

Population growth:

Back to Back Housing:

Disease in slums:

Government action:


Cholera Epidemic: London - 1831-1839

Causes:

Beliefs about causes:

Real causes:

The Chadwick Report

The First Public Health Act 1848

John Snow

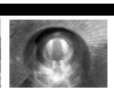
What did he do?

Impact on Medicine?

The Great Stink 1858

Joseph Bazalgette

Impact on public health:

"The death of Laissez-Faire Politics."

Conservative Party Public Health Reforms.	
1875 Housing Act	
1875 Second Public Health Act	
1875 Sale of Food and Drugs Act	

Factors for change in medicine:		
Role of individuals.	**Luck/Chance**	**Warfare**
Religion	**Government**	**Technology**

Branches of medicine		
Treatment of disease. (ToD)	**Surgery (S)**	**Public Health (PH)**

Part 4: The 20th century – modern medicine

Key people

Politicians

David Lloyd George
Prime Minister responsible for the Liberal Reforms 1906-1911

William Beveridge
Wrote the 1942 Beveridge Report that would become the starting point for the Welfare State. 600,000 copies of the report were sold.

Aneurin (Nye) Bevan
Appalled by east end poverty, he set up a 'Ragged School' to train boys and girls to help them find work when they left school.

Social reformers

Charles Booth
Surveyed London and published *Life and Labour of the People* in 1889. Found 35% of London's population was living in poverty. Findings reported to the Government.

Seebohm Rowntree
Did the same as Booth but in York. Published *Poverty, A study in Town Life* in 1901. 146,000 ctizens were interviewed. Found that half the working class people of York lived in Poverty.

Maud Pember-Reeves
Published *Round about a pound a week* in 1913. Wanted to prove the working class wasted money on drink. Instead she found workers struggled to survive on the average wage of £1 a week.

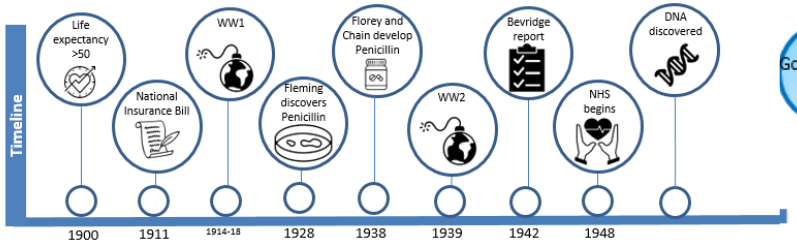
Scientists

Alexander Fleming
Accidentally discovered Penicillin in 1928 by leaving an experiment uncovered but did not realise the true potential of it.

Howard Florey
Developed the use of Penicillin as a mass produced antibiotic. This work was spurred on by the Second World War and used American industry to produce.

Ernst Chain
Developed the use of Penicillin as a mass produced antibiotic. This work was spurred on by the Second World War and used American industry to produce.

All three men mentioned above shared the Nobel Prize for their work. They started a movement that has since created countless antibiotics.



Key words

Alternative medicine	Yoga, homeopathy, acupuncture. No chemical intervention given. All about balance.
War	WW1 and WW2 had a huge impact on medical development e.g. plastic surgery and transfusions.
National Health Service	Government run healthcare for all people.
Skin graft	Taking skin from one area of the body to cover another.
X-Ray	Light rays used to locate items within the body e.g. bullets. Used in WW1
Transplant	Replacing a damaged organ with one from another body.
Radiotherapy	Treatment of disease, especially cancer, using radiation.
Chemotherapy	Treatment of disease by the use of chemical substances.
Superbugs	Antibiotic resistant bacteria e.g. MRSA
Gene therapy	Replace defective genes in DNA with normal ones
Dialysis	Technology that replaces the kidneys
Polio	Contagious disease. Causes paralysis or death. FDR had it. (See USA unit)
Penicillin	First mass produced antibiotic.
Magic bullets	Chemical that kills a particular bacteria, nothing else.
Electron microscope	Developed 1931. Allowed close examination of cells.
DNA	Deoxyribonucleic acid – molecule that genes are made of
Shell shock	Psychological condition caused by exposure to war. Today called PTSD
Transfusion	Transferring donated blood, blood products, or other fluid into the circulatory system of a person

Key events

Treatments

During the 20th Century British companies such as Beechams became worldwide businesses, manufacturing drugs. They:

- Invested in research and development and did careful research to look for better treatments
- Used industrial technologies to make huge quantities of each new remedy.

For example, Aspirin, from willow bark, had been used for centuries but nobody knew why it worked. Scientists were able to find out which chemical it was that actually worked and then manufacture it. In the 1970s it was discovered it thinned the blood and we now use i to reduce the risk of heart attack.
However, not all treatment was successful. For example. Thalidomid was a 'safe' sleeping tablet given to pregnant women to reduce morning sickness. It hadn't been tested and led to children being born without limbs. It was banned in 1961 but by then 10,000 children were already affected.

Alternative treatments

This was a growing areas. Some people think that medical drugs are damaging and would prefer to use more traditional medical ideas. Very similar to the Four Humors. A good example is Acupuncture tha has been used in China for 4000 years.

War

The twentieth century had two world wars. These created huge medical advancements.
World War One saw:

- Plastic Surgery pioneered by Harold Gillies
- Broken bones mended with the Army Leg Splint (traction)
- Blood transfusions led by Landsteiner who worked on blood types and then Hustin who discovered how to store blood by using Sodium Citrate making blood banks possible
- X-Rays were used to their full potential.

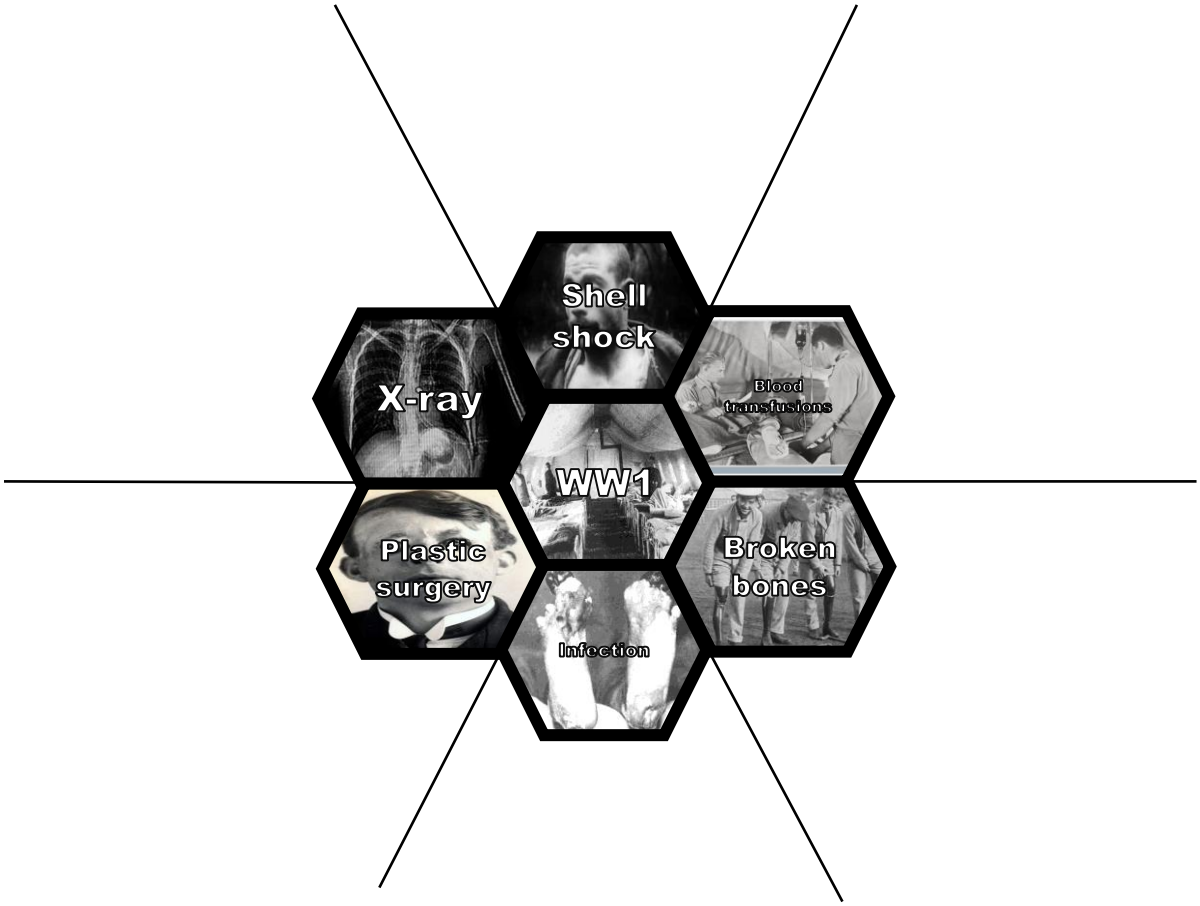
World War Two saw:

- Further plastic surgery developments led by McIndoe
- Heart surgery progressing led by Harken who was able to operate on a beating heart
- Blood banks ready to use in anticipation of injuries
- Government involvement in the nations food supply
- Drugs such as Penicillin mass produced

Public Health

The wars highlighted a need to intervene in the general health of the public. This was started with the Liberal Reforms (1906-11) but there was more to do. In 1942 the Beveridge report found that huge swathes of the population still lived in a condition that made Britain backward in comparison to other countries. By 1948 the largest scale government action was underway. The Welfare state catered for education, benefits and crucially a National Health Service. This all still exists today and is one of the mot comprehensive systems in the world. The downside to this is the spiraling government spending that is required. £129 billion was spent in 2018/19

38. Complete the hexagons with details from each category.



39. What impact did WW2 have on medicine?

WW2:

-
-
-

Explain how one of these helped to develop medicine

Use the QR codes for further information

Seneca

YouTube

36. Create a storyboard telling the story of penicillin, from discovery to mass production.

37. Who should receive the most credit for the development of penicillin?

Alexander Fleming	**Florey and Chain**
My final decision and reasons	

40. Write your own definition of these key words

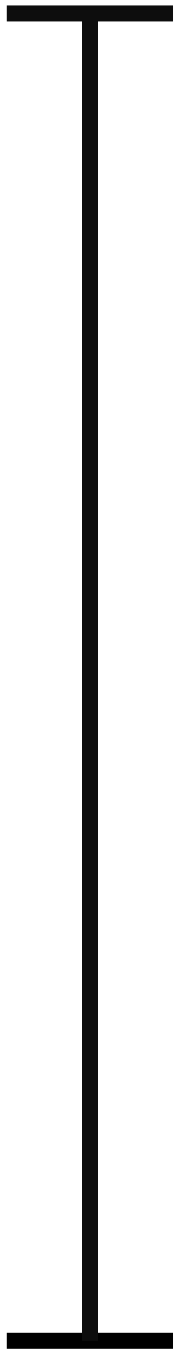
Laissez-faire_____
_____

Liberal Reform_____
_____

Welfare State_____
_____

Beveridge Report_____
_____

41. Create a timeline for the Liberal Reforms.



Use the QR codes for further information

Seneca

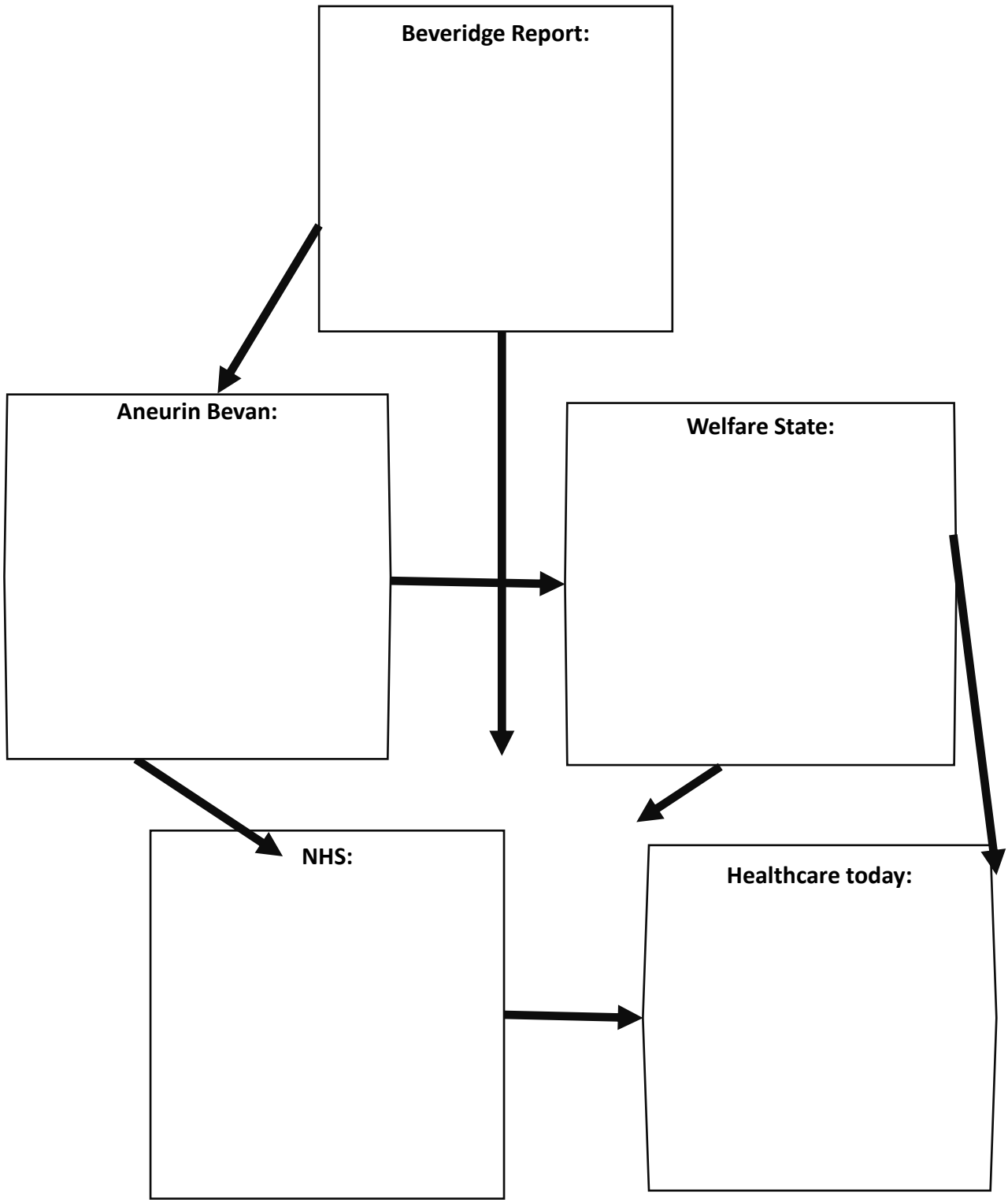
BBC Bitesize

Use the QR codes for further information

Seneca

YouTube

42. Complete the diagram below linking the boxes..



Public Health – The NHS

43. Annotate the cartoon below about the creation of the NHS. The 'woman' is Aneurin Bevan

DOTHEBOYS HALL

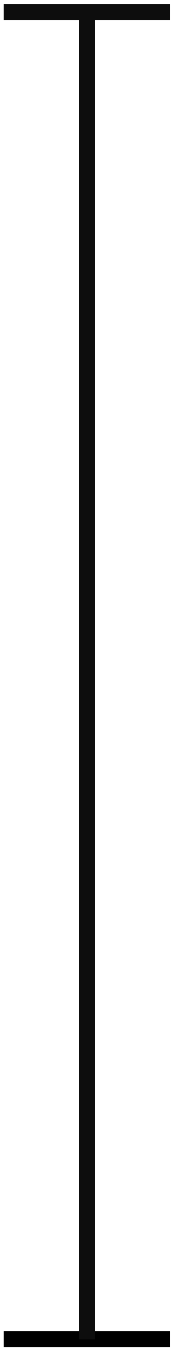
"It still tastes awful."

Alternative Medicine

44. Complete the table describing different alternative medicines..

Herbal remedies	Acupuncture	Hypnotherapy	Homeopathy

45. Create a timeline of the development in drugs since 1945. Pick out the ones you think are most important/significant.



Explain why antibiotic resistance is becoming a problem

Bullet point 5 facts about healthcare in the 21st century…

Cornell Notes: Modern Medicine

Use this Cornell Notes page to summarise your learning on medicine in modern Britain. Use your notes and activities from the previous pages. Use the titles for each section to help you organise your ideas.

Key words and questions Write them out here and test yourself	**Note taking** Make notes/diagrams on the key features of medicine in modern Britain

Summary

Summarise your key points into essential bullet points

Need a hand?

YouTube

BBC Teach: 20th century medicine

Seneca: 20th Century medicine course

Quizlet: Modern medicine flashcards

Britain: Health and the People c1000 to the present day. Part 4: Modern Medicine

c.1900 – The Modern Period

The Boer War 1899
What did the British army find when recruiting during the Boer War?

How did the government respond to this? What did they find?

Reports on lives of the poor

Seebohm Rowntree 1901

Charles Booth 1902

Impact of reports
How did these reports change the way people viewed the government?

Liberal Social Reforms
Key reforms
School meals:

Children's health:

Poverty and housing:

Impact of social reforms on public health:

William Beveridge
What did he do?

What was his impact on medicine?

The Welfare State
Key features:

Impact on public health:

NHS

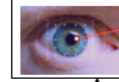
Development of the NHS

Costs of the NHS

21st Century Health Care

Modern treatments and surgical methods.
Examples of modern treatments and surgical methods:

Causes – why have these developed in late 20th Century?



1900 1910 1920 1930 1940 1950

Paul Ehrlich
What did he do?

What was his impact on medicine?

World War One 1914-1918
Key medical developments during WWI:

Impact on public health/surgery/disease?

Alexander Fleming
What did he do?

What was his impact on medicine?

World War Two 1939-1945
Key medical developments during WWI:

Impact on public health/surgery/disease?

Florey and Chain
What did they do?

What was their impact?

Growth of the Pharmaceutical Industry
Why did the discovery of penicillin cause this growth?

Examples of companies:

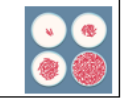
Impact:

gsk

Antibiotic resistance
Definition:

Why does this happen?

Examples:



Alternative medicine
Why has popularity increased?

Examples:

Factors for change in medicine:		
Role of individuals.	Luck/Chance	Warfare
Religion	Government	Technology

Branches of medicine		
Treatment of disease. (ToD)	Surgery (S)	Public Health (PH)

48. Below are the events we've studied in the course. In the table, identify which factor they go with – give an explanation of **how** that factor is shown

	Event	War	Religion	Chance	Government	Communication	Science and technology	individual
Part 1 – Medieval medicine –medicine stands still	Galenic and Hippocratic medicine		The Catholic Church supported Galen because he believed in one God					
	Causes of disease							
	Treatments for disease							
	Islamic medicine							
	Medieval hospitals							
	Public health							
	The Black Death							

	Event	War	Religion	Chance	Government	Communication	Science and technology	individual
Part 2 – Renaissance medicine – The beginnings of change	Renaissance surgeons							
	Renaissance treatments							
	Renaissance hospitals							
	Public health							
	Great Plague (1665)							
	Jenner and Smallpox							

	Event	War	Religion	Chance	Government	Communication	Science and technology	individual
Part 3 – industrial medicine – A revolution in medicine	Germ theory							
	"Magic bullet" treatments							
	Industrial hospitals							
	Lister and antiseptics							
	Simpson and anaesthetics							
	Public Health – Cholera and Snow							

	Event	War	Religion	Chance	Government	Communication	Science and technology	individual
Part 3 – industrial medicine – A revolution in medicine	Discovery of Penicillin							
	World War One							
	Chadwick, Booth and Rowntree							
	Liberal Reforms							
	World War Two							
	Welfare State							
	NHS							
	Development of drugs since 1945							

Name:

Medicine through time
Unit 1 – Medieval medicine

Total Mark /15

A.		**mark /5**
Question	**Answer**	**Y/N**
1 Much of the knowledge of a medieval doctor was based on the works of…..		
2 Which ancient Greek method did medieval doctors follow in order to diagnose a patient?		
3 Medieval doctors used the colour, smell and taste of what?		
4 Which theory did medieval doctors base their natural cures on?		
5 What treatment was given to a patient who was considered to have too much blood?		

B.		**mark /5**
Question	**Answer**	**Y/N**
1 What did the Church teach about the best way to deal with sick people?		
2 What did Galen believe that meant that his ideas were supported by the Church?		
3 Which encyclopaedia did Avicenna write that was used to train doctors until the 1600s?		
4 What is the name of the Islamic Doctor who worked out the difference between measles and smallpox? He tried to improve Galen's work.		
5 What was drilling a small hole in the head of a patient to release evil spirits known as?		

C.		**mark /5**
Question	**Answer**	**Y/N**
1 What was drilling a small hole in the head of a patient to release evil spirits known as?		
2 What is the medical term for a substance that removes pain?		
3 What was the procedure of using hot oil and a burning iron to seal a wound called?		
4 Which medieval surgeon had a success rate of 50%		
5 How many people were killed in Britain as a result of the Black Death?		

Name:

Medicine through time
Unit 2 – Renaissance medicine

Total Mark /15

D.		**mark /5**
Question	**Answer**	**Y/N**
1 What year was the printing press invented?		
2 Who's ancient work was questioned during the Renaissance?		
3 What is the name for the science of understanding the body and internal organs?		
4 Which medieval treatment did Pare discover a new more effective method?		
5 What is name of the silk chord used by Pare to tie off veins and arteries?		

E.		**mark /5**
Question	**Answer**	**Y/N**
1 Which Renaissance doctor discovered that blood circulates with the heart as a pump?		
2 What is a Quack?		
3 Which Galenic theory did Harvey disprove?		
4 Which substance, used as an anaesthetic, was brought back to Britain by explorers?		
5 What language did Pare translate Vesalius' work **from** and **to,** making it more widely accessible?		

F.		**mark /5**
Question	**Answer**	**Y/N**
1 What year was the Great Plague in London?		
2 How many people died during the Great Plague?		
3 Name two new hospitals set up during the Renaissance period.		
4 How many hospitals were built during the ***Hospital Boom*** (1729-1750)		
5 What couldn't Jenner do that made people not accept his discovery of vaccination?		

Name:

Medicine through time
Unit 3 – Industrial medicine

Total Mark /15

G.		**mark /5**
Question	**Answer**	**Y/N**
1 In the early 1800s, many people believed that germs could appear is if by magic. This was known as…?		
2 What did Louis Pasteur prove that heat could do to microbes?		
3 What did Robert Koch do with Pasteur's Germ Theory?		
4 Who discovered the anthrax germ?		
5 What did Paul Ehrlich develop that destroyed specific bacteria without harming the rest of the body? veins and arteries?		

H.		**mark /5**
Question	**Answer**	**Y/N**
1 What is the name for a substance that removes pain?		
2 What did James Simpson discover by accident in 1847?		
3 Who designed an inhaler, meaning anaesthetics could be more safely ingested?		
4 Carbolic Acid, used by Lister, is an example of a chemical that kills microbes. What are these chemicals known as?		
5 What is the difference between antiseptic and aseptic surgery?		

I		**mark /5**
Question	**Answer**	**Y/N**
1 How did doctors perform aseptic surgery?		
2 How many people died from Cholera in 1848?		
3 In 1845, what did Dr John Snow realise was causing the cholera epidemic in London?		
4 In 1858, what did Joseph Bazalgette build in London that brought an end to the 'Great Stink'?		
5 In what year was the second public health act signed that made it compulsory for councils to clean their streets and supply fresh water?		

Name:

Medicine through time
Unit 4 – modern medicine

Total Mark /15

J.		**mark /5**
Question	**Answer**	**Y/N**
1 At the start of which war in 1899 were 40% of British soldiers found unfit to fight?		
2 Whose report found that 30% of Londoners were too poor to eat?		
3 What types/classification of poverty did Rowntree discover?		
4 In 1906, which party won the general election?		
5 Name two Reforms passed in the early 20th century.		

K.		**mark /5**
Question	**Answer**	**Y/N**
1 The army doctor Gillies developed which type of surgery?		
2 What was developed that helped soldiers who had lost a lot of blood?		
3 What year was the first blood transfusion?		
4 What was opened in Britain as a result of WWII?		
5 What machines were made that helped find broken bones and shrapnel?		

L.		**mark /5**
Question	**Answer**	**Y/N**
1 Why didn't Fleming's discovery immediately help?		
2 During WWII, which two doctors developed Penicillin?		
3 In 1942, what did William Beveridge write a report about?		
4 What was set up in 1948 that gave free health care and by who?		
5 What happens to the effectiveness of antibiotics if they are overused?		