



Autumn Term
Term 1
History
Year 11

Name: _____

Tutor: _____

Care to Learn
Learn to Care

Year 11 Homework Timetable

Monday	English Task 1	Option A Task 1	Option C Task 1
Tuesday	Sparx Science	Option B Task 1	Sparx Maths
Wednesday	Sparx Maths	Science Task 1	Option C Task 2
Thursday	Option A Task 2	Sparx Catch Up	Option B Task 2
Friday	Science Task 2	English Task 2	

Sparx Science

- Complete 100% of their assigned homework each week

Sparx Maths

- Complete 100% of their assigned homework each week

Option A
Geography
History
Spanish

Option B
Geography
Psychology
Health and Social Care

Option C
Childcare
Drama
Psychology
Sport

Half Term 1 (8 weeks) - Year 11

Week / Date	Homework task 1 Cornell Notes	Homework task 2 Exam Question
Week 1 2nd September 2024	Cornell Notes on: Ideas around illness	Question: Describe one key feature of Ideas about causes of Disease. [2] Describe one key feature of the Theory of the Four Humours.[2]
Week 2 9th September 2024	Revision Cards on: Ideas about the cause of illness 1500-1700 /1700-1900	Question: Explain one way in which ideas about illness in the period 1500-1700 was different to ideas about illness in the period 1700-1900.
Week 3 16th September 2024	Cornell Notes on: Ideas about the cause of illness Modern Day	Question: Explain why ideas about the causes of illness changed 1250-present.
Week 4 23rd September 2024	Revision Cards on: Approaches to treatment and prevention 1250-1500	Question: Describe one key feature of prevention of disease 1250 to 1500. Describe one key feature of medics 1250-1500.
Week 5 30th September 2024	Cornell Notes on: Approaches to treatment and prevention 1500-1700	Question: Explain one similarity between people who carried out treatment 1250-1500 and people who carried out treatment 1500-1700
Week 6 7th October 2024	Revision Cards on: Approaches to treatment and prevention 1700-1900	Question: Explain why there were improvements in surgery 1700 -1900 [4]
Week 7 14th October 2024	Cornell Notes on: Approaches to treatment and prevention 1900-present	Question: Explain one difference between medical treatment/care 1700-1900 and medical care 1900-present [4]
Week 8 21st October 2024	Revision Cards on: Case Studies 1250-present	Question: Describe one key feature of the work of William Harvey. Describe one key feature of the work of Florey and Chain.

Half Term 2 (7 weeks) - Year 11

Week / Date	Homework task 1 Cornell Notes	Homework task 2 Exam Question
Week 9 4th November 2024	Cornell Notes on: Medicine on the Western Front. Part 1	Question: Describe one key feature of the Western Front Describe one key feature of casualties at the Battle of the Somme
Week 10 11th November 2024	Revision Cards on: Medicine on the Western Front.	Question: Describe one key feature of the RAMC Describe one key feature of Blood Transfusions
Week 11 18th November 2024	Cornell Notes on: Medicine on the Western Front. Part 2	Question: Describe one key feature of Gas attacks on the Western Front Describe one key feature of other wounds on the Western Front
Week 12 25th November 2024	Mock Exams	Mock Exams
Week 13 2nd December 2024	Mock Exams	Mock Exams
Week 14 9th December 2024	Cornell Notes on: Henry and Wolsey	Question: Wolsey's domestic politics were a total failure. How far do you agree? Write a paragraph with your opinion
Week 15 16th December 2024	Revision Cards on: Henry and Wolsey	Question: Describe one key feature of Wolsey's foreign policies Describe one key feature of the annulment crisis

Knowledge Organiser

History Year 11 - Medicine through time

Week 1 - Ideas about Causes of Illness 1250-1500

Key Information;

Ideas about the cause of disease and illness

God

- People were very religious - following the teachings of the Catholic church
- People paid money to the church called the tithes and the church provided basic medical care.
- Lots of illness due to malnutrition - religion was used to explain illness and there was little education. Those who committed sin would be punished. Illnesses were used to prove God existed
- Disease was sent by God to cleanse the soul and test your faith - eg leprosy (skin disease which caused paralysis - fingers and toes would drop off) sufferers were isolated and helped by Leper colonies (Leper colony) because people believed it was passed on by breathe

Astrology

- A physician would consult star charts - the church did not really approve (supernatural) . The Black Death was caused by bad alignment

Miasma theory

- Miasma or bad air theory - the air was filled with harmful fumes. Both Hippocrates and Galen both wrote about swamps, crosses and rotting matter and how it could transmit disease
- Smells and vapours were also associated with God - clean and sweet smelling homes were a sign of spiritual cleanliness
- Dirty and unwashed people were feared - spread disease

Urine charts

- Physicians examined urine to diagnose illness - the best way to check the humours was by comparing it to a urine chart(colour, smell, thickness and even taste)of the planets
-

The Theory of the 4 Humours

-- the idea that the universe was made up of 4 elements (fire, water, earth, air) so the body must be made up of 4 humours

Blood

Phlegm (Cold and wet)

Black bile (clotted blood)

Choler (yellow bile) - pus and vomit

Hippocrates created the idea but it was developed by Galen (physician to the Gladiators)

He believed the humours needed to be balanced - the Theory of opposites to cure a cold you should eat hot peppers. It was popular because it could explain all illnesses

Hippocrates and Galen

Remained popular because :-

Influence of the church - Galen believed in the soul so it fitted well for the church and the church produced all books so his ideas were transmitted

Book learning - physicians read books and only Galen was available

Lack of alternatives - no science . dissections were against the church so only criminals were dissected and anything to disagree with the 4 humours was blamed on the fact they are criminals

Week 2 - Cause of illness 1500-1700

- **Ideas on illness and disease**
- People still believed the same things - little had changed . However religion and social changes did impact on mediaeval knowledge and people's attitudes

New ideas and discoveries

- Some Physicians now rejected the 4 Humours in favour of alchemy (chemical treatments) influenced by work of swiss scientist - Paracelsus but ordinary people still believed
- New ideas on the cause of disease for example animalcules - tiny things scrapped from teeth - later this will be known as bacteria
- Had little impact because of limited medical instruments, little scientific proof and limited knowledge of anatomy

So practice of medicine changed little but ideas did

- Galileo and Copernicus were challenging the authority of the church encouraging people to search for new ideas about the cause of illness
- The idea that urine was not directly related to health
- Physicians observed patients more

Scientific diagnosis

- Humanism - the love of learning and belief that humans can make up their own mind
- It was a break with mediaeval traditions as they rejected the idea that God was responsible for everything but did not know what was **Thomas Sydenham**

In the 17th century there was more experimentation from scientists like Thomas Sydenham (English Hippocrates)

- Doctor in London
- Refused to rely on medical books instead he observed
- He believed diseases could be organised into different groups
- Diseases not symptoms should be treated
- He was not able to identify microorganisms
- But he did identify that measles and scarlet fever were different diseases

Why did ideas change?

Better communications

1440 - Printing press , first developed in Gutenberg. This allowed for information to spread quickly and accurately and took books out of the hands of the church

Royal Society

1660 set up at Gresham College London. Set up so new ideas could be shared and more experiments could be carried out. They received the royal charter in 1662 from Charles II- this made more people listen to their ideas

1665 - the society published - Philosophical Transactions (letters , books, reviews and summaries of experiments). It was written in English not Latin so was accessible to everyone. New ideas like those of Robert Hooke and Leeuwenhoek work on animalcules

1700-1900

Enlightenment

People could think for themselves and Science could find the answer. Rational explanations were needed. This became the Age of Enlightenment and the Scientific Revolution. These changed how people thought and lived. This coincided with the growth of towns. New cities were not well planned or hygienic - diseases like TB, typhus and smallpox were a great threat Scientists were now rejecting the 4 Humours and miasma and instead developed the theory of spontaneous generation - scientists could now see microbes which were a product of decay not the cause of it.

Germ Theory- Louis Pasteur

1860 - French Academy of Science challenged Scientists to either prove or disprove spontaneous generation . Microscopes improved enough to see more . Pasteur observed unwanted microbes in wine and vinegar and produced germ theory. He disproved spontaneous generation instead germs were causing decay so may well cause disease in humans. He looked at a microorganism that was killing the French silkworm. He waited until 1878 to publish his germ theory of infection.

At first this had no impact on Britain; instead spontaneous generation continued to be important until 1870 when scientists began to look for a link between microbes and disease.

Joseph Lister and John Tyndall - found airborne small organic particles - he said these dust particles could cause disease

Tyndall was not a doctor so was discredited therefore Pasteur's theory had limited impact in Britain because of the attitude of doctors

Robert Koch - successfully identified different germs caused common diseases. He discovered the bacteria that caused TB. he published ideas on the methods to identify diseases. He identified cholera and proved it was spread in water. He made it easier for future scientists - he developed the use of the jelly in petri dish. He won the nobel peace

Week 3 - Modern Day beliefs about illness

Ideas about disease and illness

- No longer any belief in miasma or the 4 Humours. Diagnosis was between doctor and patient and there was a move towards laboratory medicine with more examination of samples using a procedure called biopsy. So the biggest change was diagnosis based on medical testing.

The science of genetics

- 1900 scientists began to realise not all illnesses were caused by germs as some babies were born ill - they developed the idea of hereditary diseases. The German scientist Mendel believed genes came in pairs one inherited from each parent known as fundamental laws of inheritance but he had limited proof
- 1951 scientists had proved characteristics were passed down to children from parents - they believed this substance in the human cells caused this to happen and sometimes resulted in defects. In 1953 this was called DNA

Watson , Crick and the human gene

Watson an American biologist and Crick an English physicist who were working at Cambridge University- they weren't researching DNA but both were interested in human biology. They built their own model of DNA and shared it with Rosalind Franklin who was creating images of DNA - between them they solved the puzzle of the structure of DNA - shaped like a double helix.

Once this was understood, mapping the DNA Code helped scientists understand hereditary diseases like haemophilia. The Human Genome Project launched in 1990 led by James Watson was not completed until 2000. They found in humans there are more than 3 billion DNA pairs . Scientists have a blueprint of DNA so they can look for mistakes or mismatches to look for hereditary diseases. They found a gene that can cause breast cancer so can help prevent it by having a mastectomy

Genetics was helped by the advances in microscopes like electron microscopes which beams electrons

Week 4 - Approaches to treatment /Prevention

1250-1500

Religious Actions

- Healing prayers and incantations - special mass -fasting - pilgrimage.
- Touching holy relics

Astrology

- Treatment people received varied depending on their horoscope - alignment of planets to decide which herbs to gather / bleeding / purging/ hair or nail cutting

Symptoms were treated separately - not the disease

Bloodletting - Phlebotomy - most common treatment because bad humours could be removed. Monks were not allowed to do it so it was done by barber surgeons and wise women. They did it by:-

- Cutting a vein near the elbow
- Leeches - used mostly for older people
- Cupping - piercing the skin with a knife - heating a cup and placing it over it to draw out the blood

Purging - humours were created by food so treatment was purging (vomit / laxative) using strong bitter herbs (aniseed and parsley)

Remedies - herbal infusions

Different foods to balance the herbs

Bathing - warm baths to dissolve blockages - steam out impurities - plants added to water (paralysis - advised to boil a fox in the water and bathe in it

Preventing Disease

Church - live a good life - free from sin - regular prayers

Hygiene - regimen sanitatis - set of instructions - Hippocrates - used by the rich because it involves hot baths. Washed hands - cleanliness was next to |godliness - homes smelled sweet - rushes changed

Diet - eating too much was discouraged- some mediaeval kings died from overeating - Edward 1st (dysentery)

Purifying the air - sweet herbs in a posy

Mediaeval medics

Most people were treated at home by females - asking for medical help cost money

Physicians

- New universities (including Oxford and Cambridge) - medicine became more professional - a medical degree took 7-10 years
- Called Physicians not doctors until the 17th century - their main role was to diagnose illness and recommend treatment . they followed 3 stages
- * look at urine , faeces and blood
- * consult astrological charts
- * consider the humoral tendencies of a patient

Others then carried out the treatment - many Physicians were churchmen so could not do blood letting.

Physicians were expensive - royalty and wealthy had one of their own

Apothecaries

- Used Mixed herbal remedies using herbal manuals like Materia Medica and information was passed down the generations. Considered not as skilled as Physicians but more affordable
- Apothecaries were also not subjected to the Hippocratic oath so they dabbled in the supernatural with amulets and charms

Surgeons or barber surgeons

- Pulled teeth / bleed patients - some were highly trained but most relied on experience

Hospitals

Most did not treat sickness but offered hospitality to travellers . 30% owned and run by the church often monks and nuns. Funded by wills

Mostly places to rest and recover - clothes and bedding changed which is why they recovered.

Patients shared beds. Recovery showed God's forgiveness

Infectious patients rejected

Home

Most people were treated at home by women making herbal remedies and restorative food.

Women were expected to grow herbs for medicine

They may also carry out minor surgeries and bleeding

Week 5 - Approaches to treatment/prevention

1500-1700

Treatment

Bleeding, purging and sweating still continued

New popular idea was transference - a disease or illness could be transferred to something else (rubbing something on a boil would remove it to the object)

Herbal remedies also continued - colour coded - red rash treated with red food

New remedies arrived from new places e.g. sarsaparilla for pox / ipecac for dysentery.

Sydenham popularised using cinchona bark for malaria

Chemical

New science called iatrochemistry (medical) inspired by Paracelsus - experimented with metals as cure for common ailments - antimony - promotes sweating which cools the body down - this was said to have cured Louis XIV's typhoid fever

- Syphilis (Great Pox) - sore / spots, tiredness, headaches and tumours no cure

Prevention

- Avoid disease by moderation, avoid drafts and exhaustion or being too lazy
- Cleanliness still important - free of bad smells but bathing was less popular because people feared bathhouses spread syphilis
- They still practised regimen sanitatis
- English towns were fined for not clearing streets. Criminals were given the job of removing sewage from the streets

Apothecaries and surgeons

- Apothecaries continued to mix remedies and surgeons did simple operations.
- They were organised into Guilds where apprenticeships allowed journeymen (learning on the jobs)

Physicians

- Trained by universities - still traditional but some new subjects iatrochemistry and anatomy mostly learnt from books - very little practical hands-on but dissection was now allowed but it was hard to get fresh corpses.
- More access to books including being able to get hold of individual pages called fugitive sheets
- Andreas Vesalius - anatomist - studied medicine in Paris 1533 - He was a lecturer of surgery at Padua - He published Six Anatomical Tables showing different parts of the body which were labelled in Greek, Latin, Arabic and Hebrew. He continued his work using bodies of executed criminals and found 300 mistakes in Galen's original work including the human jaw being only one piece not two. He encouraged doctors to do dissections and follow his lead. His book had lots of pictures.

Caring for the sick

Hospitals

- Were less a place to stay and more a place for medical care (wounds and curable diseases)
- Patients could expect - a good diet, visit from a physician, medication
- Much of the care was still done by monks and nuns
- Hospitals were often funded by charities

Pest Houses

- Lazar houses for leprosy had always existed - now there were also houses for plague and pox

Most sick were still cared for at home looked after by women but they could get in trouble if they did not have a licence

Week 6 - Treatment/prevent 1700-1900

Approaches to prevention and treatment

The biggest change was the willingness of the government to take steps to prevent disease

Hospitals - Florence Nightingale

- There were few hospitals and those were funded by wealthy people . there were changes in how to treat the sick but they were very particular on who they treated
- The more people who attended hospitals the dirtier they became. Doctors spread disease from patient to patient
- Nightingale was from a wealthy family who had to convince her parents that God wanted her to be a nurse. She travelled to Germany and Paris and finally King's College Hospital London to be a nurse
- Crimean War 1854 - Nightingale persuaded the British government to let her and 38 other nurses to go and treat the soldiers

Improvement in surgical treatment

3 big problems - bleeding , pain and infection

Pain - opium had been used for sometime but without anaesthetic there was no way of controlling pain which sometimes sent the body into shock. Surgery had to be done quickly

Bleeding – problem so the quicker the surgery the better. Infection was a major problem as no germ free environment (surgeons wore their own clothes). Amputation was the main form of surgery

Tackling pain (Anaesthetic)

Early experiments had included laughing gas but often this caused vomiting or coughing - it was also flammable - dangerous in candle lit operating theatres

James Simpson (Scottish surgeon) gathered friends and inhaled various chemicals after sniffing chloroform they all passed out= effective anaesthetic but an overdose could kill.

It began to be used more often Queen Victoria used it in 1853

It allowed surgery to be longer but bleeding was still a problem

Antiseptic

- A lack of understanding of germs meant surgery was not clean - clothes / instruments/ theatre not cleaned between operations. This resulted in deaths from gangrene / sepsis
- Joseph Lister (English surgeon) studied infected wounds and found flesh was rotting. Having studied Pasteur he theorised microbes could cause flesh to rot - so he began to look for a chemical that would remove bacteria from the wound. In 1865 he added carbolic acid to the bandage of a patient with a broken leg - the wound healed
- Lister sprayed carbolic acid in the air in operating theatres and published his findings in the Lancet. However it dried out the hands of the surgeon and smelt very strong
- By 1900 instruments were steamed , operating theatres scrubbed, rubber gloves and gowns worn

Opposition

- Pain relief was interfering in God's work
- Surgeons wanted patients awake
- Took a long time for people to accept germ theory

Week 7 - Prevention/Treatment 1900-present

lifestyle and health

Smoking became more popular in the 1920s - it was associated with being young and free but by the 1950s there was a noticeable rise in lung cancer. Scientists made the link and also the idea it causes other cancers, heart problems - it is the biggest cause of preventable diseases

Diet - sugar and fat can cause problems - too much sugar can cause diabetes - when the body can't process the sugar in the bloodstream

Alcohol causes kidney and liver disease

Improvements in diagnosis

The development of machines and computers help doctors to diagnose

Blood tests and pressure monitors help identify potential problems

X rays / MIR / ultrasound all make things better

Medical treatments

Chemical cures - magic bullets a chemical cure that attacks microbes in the body that cause disease leaving the body unharmed. These replicated antibodies produced by the body to fight disease. This was the first big breakthrough when it was found that syphilis could be cured partly by an arsenic compound but this sometimes killed the patient. Then a Japanese scientist Hata found compound number 606 cured syphilis - he called it Salvarsan - this was the first magic bullet

Development of antibiotics

Antibiotics

Antibiotics destroys or limits the growth of bacteria - the first antibiotic was penicillin - created from microorganisms not chemicals. Penicillin was isolated from mould by Alexander Fleming in 1928 and was developed as a usable treatment by Florey and Chain in 1940

Other scientists also investigated mould and fungi for more antibiotics .

streptomycin was discovered by Seiman Wakston - so powerful it worked against TB.

Scientists have now developed medicines that pinpoint and treat specific diseases.

Even if they can cure them they can manage their illness

New technology made it easier to :-

- Mass produce
- Develop capsules that are easier to swallow
- Hypodermic needles that give the correct dose
- Insulin pumps to help control diabetes

Medical Care - Impact of the NHS

Phase 1 - improved medical care

The NHS was launched in 1948 with an aim to provide medical care to the entire population - paid for by National Insurance contributions, taken from wages. It took over all hospitals and services. To begin with, hospitals changed little but they needed updating and they were limited in many areas.

GP surgeries needed modernisation and GPs needed better training to keep up to date with medical developments. So access improved but provision did not

Phase 2 - Improve hospitals

The development of new machinery allowed improvement in hospitals especially surgery:-

- Advanced xrays allowed radiation treatment for cancer
- Smaller machines allowed dialysis
- Robotics allowed for better prosthetic limbs
- Microsurgery allowed for organ transplants - (Kidney 1956) and keyhole surgery which allowed for quicker healing

Treatment

1900 - 25% of deaths was caused by infection by 1990 it was less than 1% - still some problems:-

-difficult to find vaccines against viruses like flu because they mutate

- new diseases kept appearing

- lifestyle factors increased heart disease and cancer

Microbes develop that resist antibiotics like MRSA

Improved access to care

1900 the government set up ministry of health to determine level of care but did not really improve until it was free after 1948

This was because:-

- Increased understanding of the causes of disease
- Better understanding of how to stop the spread
- 1912 - National Vaccination Programme against diphtheria was the first of its kind
- Similar one for Polio eradicated these diseases in England

Methods to improve

- Compulsory vaccinations
- Laws to improve the environment like the Clean Air acts
- Adding fluoride to the water supply
- Communicating health risks

However there remained some controversy over vaccinations like MMR

Promoting a healthy environment

Clean Air Acts 1956 and 1968

- Heavy fog caused by pollution resulted in smog which caused breathing problems - the clean air acts removed this as an issue
- Governments also ran lifestyle campaigns to promote healthier lifestyles - advertising against smoking events like Stoptober and the Change 4 Life campaign

Week 8 - Case Studies 1250-present

Case Study - Black death 1348-9 (Bubonic Plague)

Spread along the Trade routes. It was unfamiliar with the people in Europe so they did not know how to treat it . now it can easily be treated with antibiotics

Spread by bacteria in the digestive system of the fleas who are on the black rats which came on the trade ships. It can also be carried in the air
The main symptoms included pus filled buboes - it usually killed within 3-5 days .

1/3 of the population died and it returned every 10-20 years

Causes

God punishing them

Breathing in impure air- miasma caused by corruption of the body's humours or poisonous air released by an earthquake

Some people blamed the Jewish population but they had been expelled from England

Treatment

It was difficult because they did not know what caused it

- Confess your sins / ask God's forgiveness
- Bleeding and purging - caused people to die quicker
- Strong smelling herbs - aloe and myrrh - boiling vinegar
- Lance the boils - some people whose buboes burst lived

Preventing

Main advice was to go on a pilgrimage, pray and fast

Self flagellation (whipping)

Escape - Pope's physician told people to go to the countryside

Created posies

Stay away from infected houses

Avoid anything sad be happy - sing and dance

Government introduced new quarantine laws - if you were new to an area you had to stay indoors for 40 days

Left rubbish to rot because this might stop the miasma

Smallpox

- Regular epidemics - 11 in the 18th century the worst in 1796 killed 3,548 people- it spread quickly
- There was no cure but realisation if you got a mild form of disease you were immune - some people attempted to inoculate themselves (ous from smallpox scab rubbed into a cut). It did not always work and many died. It was also expensive and only the rich could afford it
- Jenner (Gloucestershire doctor) was interested in inoculations and began gathering information on over 1000 cases where it failed.
- He also noted that he regularly treated milkmaids for cowpox, a disease similar to smallpox. Those milkmaids did not get smallpox. He needed to test his theory so he infected a local boy with cowpox (James Phipps) and then smallpox - he did not get smallpox. Jenner did further tests and wrote up his findings
- Jenner could not explain why it worked which made some reluctant to accept it. However Parliament did accept, funded it and set up the Royal Jennerian Society - to promote vaccinations. In 1840 the government paid for children to be vaccinated - this was compulsory from 1850. The number of deaths from smallpox dropped dramatically

New approaches to prevention

Pasteur showed need to identify the germ that causes the disease so a vaccine can be developed

First attempt was with chicken cholera - he proved a weakened form of the disease worked as a vaccine. He also managed to develop a vaccine against anthrax and rabies. He focused on animals but this inspired others to work on human vaccinations eg Emil von Behring - vaccine for tetanus and diphtheria

Smallpox

William Harvey - book - An Anatomical Account of the Motion of the Heart and Blood

- Born in 1575 , he studied at Cambridge and Padua and became royal doctor to James 1st
- He was interested in dissection and observing the human body
- He was particularly interested in blood and he used it to prove Vesalius theory that veins pumped blood towards the heart
- He cut open animals while they were still alive to see how blood moved - he proved arteries and veins were part of the same system. He also proved blood passed between veins and arteries through invisible passages (capillaries)
- He proved the heart not the liver pumped the blood
- As he was a royal doctor he had credibility and people were more open to new ideas

The Great Plague 1665

Causes

Astrology - unusual alignment between Jupiter and Saturn

Punishment from God

Miasma - created by stinking rubbish and dung hills especially in warm weather

Spread from person to person - hence the 'shut in policy'

Treatment

- Sweating, transference, use of herbs
- Quack doctor no medical training
- Advice from physicians - pray / quarantine/ carry posy
- Smoking tobacco / catch syphilis
- Plague doctors wore special clothes

Government

- Public events were cancelled
- Streets and alleys swept
- Cats, dogs and pigeons killed (40,000 dogs)
- Collection of dead bodies
- Rish left the city

Case study Fleming, Florey and Chain

Penicillin

Fleming was a British doctor working in St Mary's Hospital in London. He had been among the first to use the magic bullet to treat syphilis . In WW1 he had worked in battlefield hospitals- he was shocked by the number who died of infection. He began researching this and discovered his dirty petri dish developed mould which seemed to have killed off the harmful staphylococcus bacteria he had been growing. He tested the mould and found it was penicillin (in the Middle Ages people had found mouldy bread cured). Fleming did not think penicillin would work on humans because it did not work when he mixed it with blood in a test tube

Florey and Chain (Florey was an Australian pathologist and Chain a biochemist

They were researching antibiotics and revisiting abandoned research - they came across Fleming's work. They tested penicillin on infected mice with some encouraging results. The problem was it was hard to produce penicillin on a large scale- they grew it on everything they could find including the bathtub. In 1941 they used it on a policeman suffering from blood poisoning - he showed signs of improving but they did not have enough to cure him and he died

To be successful they needed to mass produce it. British companies were busy with the war so they went to the USA and began producing it in beer vats - still slow only enough in one year for 10 people.

From 1944 the US government got involved and synthetic versions were produced

New antibiotics are needed because diseases become immune

Case Study - The Fight Against Lung Cancer

Second most common cancer in the UK

Linked to external factors - 85% of victims smoked

1950 British Medical Council published a study which showed conclusively lung cancer was linked to smoking.

Deaths peaked in 1973 at 26,000- mostly men but now many sufferers are female

It's hard to treat because by the time symptoms are obvious the disease has taken hold but this has improved with the x-ray machine. Now patients are likely to get a CT scan by infecting patients with dye so things show up on the screen

If the scan shows something then one of the following will be used:-

- PET scan - small amount of radiation material to the infected area
- bronchoscope into the lungs to collect cells

Science and technology

Operations can now be done to remove the tumour and the infected part of the lung

Transplants

Radiotherapy - waves of radiation to shrink the tumour

Chemotherapy - drugs injected to shrink the tumour

Genetic research to discover genetic mutations and why it happens in some people but not others

The government also ran campaigns to reduce the number of people who smoked - changing behaviours by banning smoking in public places (2007) , raising the legal age at which you can buy tobacco (2005), banning advertising and health warnings on all packets

Comparison with Cholera

Slow response initially John Snow presented his findings in 1855 but 20 years before sewage system was completed

More direct approach with Public Health Act 1875 forced cities to be cleaner

Lung cancer

Slow response at first 1920 first evidence of a link more direct approach from 2000 to force people to stop smoking

Week 9 - Medicine on the Western Front

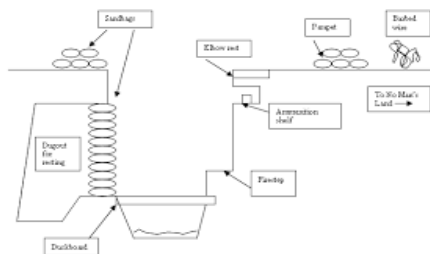
Western Front - area in France and Belgium where most of the fighting took place

In July 1916 at the Battle of the Somme the British tried to break through the German line. They had huge casualties, 60,000 of which 20,000 were fatalities. There were only 174 medics to treat all those casualties- so many died before they were seen

In April 1917 at the battles of Ypres and Arras mines were used to make things easy for the infantry but this created even more casualties so the army intended to improve medical care. They set up more medical posts before the offensive. At this battle 379 medics treated 200,000 casualties

In April 1917 the Germans retreated behind the Hindenburg Line and the allies used tanks to break through at the Battle of Cambrai. A blood bank was set up before this battle by Captain Robertson so there were a lot less casualties (Still 45,000)

The Trenches



The aim of the trenches was to protect soldiers so it needed to be 6-7 feet deep.

They were built by tunnelling (sapping)

They were built in three parallel lines

Front line - had two trenches one to move the troops the other to fire on the enemy

Support trench - 60-90 m behind

Reserve trench – where reinforcements waited. All were connected by communication trenches

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Week 10 - Western Front

The Royal Army Medical Corps

They ran the Field ambulances. This was not easy in the mud. They were units not vehicles. RAMC set up mobile medical stations . the field ambulance transport included:-

- Stretcher bearers
- Horses, wagons, carts
- Motor ambulances

The stretcher bearer normally carried casualties to relay posts until they reached road or railway points

RAMC and the chain of evacuation

Men were more likely to survive if they could be treated quickly. So they developed a system to move wounded men = chain of evacuation

1. Regimental Aid Post (RAP) gave initial first aid and moved casualty on
2. Advanced Dressing Station - tents, dugouts -received next stage of care
3. Main dressing station collected people from Advanced Dressing station in a horse cart
4. Seriously injured men were taken by motor ambulance to Casualty Station - these were wooden huts with x ray machines and nursing staff
5. Base hospitals looked after 400 patients until they could be moved home

FANY

Women of the First Aid Nursing Yeomanry Corps - were trained in first aid, signalling and driving. They mainly drove ambulances and supplies

They staffed two key ambulance convoys

1. Calais convoy
2. St omer convoy

They picked up wounded men from the base hospitals and took them back to Britain. Sometimes they used canal boats because they were smoother for most injured men

FANY also ran soup kitchens, mobile bathing units, hospitals and convalescent homes

Developments in Surgery

Reducing infection

Belgian Doctor - Antoine Depage developed a better way to treat wounds in 2 steps

1. The wound explored, objects like shrapnel removed, remove all damaged tissue to reduce infection - then wash with antiseptic
2. Leave the wound open to the air for 24-48 hours - then swab it for bacteria . only close it up if its bacteria free. This would reduce amputations

In 1915 Dakin created an antiseptic solution which could be used to flush out the wound before it was closed this was called irrigation

Fracture improvement

Roentgen had discovered x-rays in 1895 and it could be used to find broken bones and shrapnel. The British had 528 x ray machines , fourteen of which were mobile which could be used in the field. This made aseptic surgery most effective as the surgeon did not have to touch the wound.

80% of men who suffered a fractured femur (thigh bone) died. Surgeon Robert Jones decided to treat this injury using the Thomas Splint (strapping a splint around the broken leg before the patient was moved). This stopped the injury moving so protecting the patient from greater injury. This reduced the death rate to 20%. Splints were then used for all broken bones.

Blood transfusion

Blood loss caused lots of deaths, blood transfusions were possible but they were very slow. The method called syringe-cannula technique took the blood from the donor using a needle and syringe and transferred it into the patient. However there were clots which often prevented this. In 1914 they found sodium citrate stopped the clotting. Then they added citrate glucose to the blood so it would be able to be used after 10 days as long as it was iced. This meant they could create blood bank before major battles like Cambrai in 1917

Week 11 - Western Front

Conditions which caused illness:-

- Soldiers were exposed to all weathers so they suffered heatstroke, frostbite and trench foot
- Trench foot came from standing in water for extended periods of time . it caused the skin on the feet to break down. This could lead to gangrene. The only solution was amputation. The army introduced a rule that said you had to change your socks regularly
- Dysentery was another problem It caused diarrhoea and dehydration which came from the dirty water in the trenches and the latrines
- The trenches were also full of vermin that spread disease rats, lice, maggots and flies. They would spread trench fever and typhus. Lice were a major problem so they set up delousing stations , but it was hard to remove the lice eggs

Gas Attacks

Gas was used by both sides and there were 4 main types. Each caused health problems

1. Lachrymatory used from 1914 . it was also called tear gas and it caused inflammation of nose, throat and lungs. It was used to force soldiers to retreat
2. Chlorine used from April 1915. It was the first deadly gas , it slowly suffocated men.
3. Phosgene from December 1915 . This caused suffocation but took over 24 hours to work. It had only a mild scent and was colourless.
4. Mustard from July 1917 . It was a blistering agent , it burnt and caused breathing difficulties caused blindness and lung infections and could exist on the clothes for several hours meaning medics were often also hurt by it

Emotional Trauma

Men were exposed to lots of death and destruction which caused a psychological illness called shell shock. (symptoms were tiredness, blindness , shaking and mental breakdown)

Wounds and injuries

Machine guns caused bruising, fractured bones and organ damage. The head was often exposed in the trenches leading to skull fractures and brain damage. In 1915 Brodie metal helmets were introduced to help with this .

Dr Harvey Cushing treated head injuries using a new surgical technique which halved the number of deaths. He used x -rays to locate the shrapnell and magnets to draw it out.

Shrapnel caused horrific facial injuries as the bombs fell and exploded they sent bullets and metal balls flying in all directions. Dr Harold Giles a British surgeon developed plastic surgery called tube pedicle which made skin grafting and facial reconstruction possible .

Wound infections

Many of the trenches were in farmland - lots of bacteria from fertilizers, latrines and decomposing bodies. Injured men often laid in No Man's Land for ages before being rescued. This caused them to get tetanus and gas gangrene. Infection also cause sepsis. Even though doctors knew this it was hard to avoid Anti Tetanus serum was given to soldiers and wounds were washed with carbolic lotion and then wrapped in bandages soaked in Carbolic acid . a new paraffin paste called Bipp was also used to cover wounds. Before antibiotics amputation was the only solution to an infected wound

Week 14 - Henry and His Ministers

Rise of Wolsey

Key Facts

1. Wolsey's dad was a butcher. 2. Wolsey studied Theology at Oxford University when he was 15 years old. His uncle, a wealthy merchant, paid for him to go.
3. Wolsey was a chaplain to Henry VII; he now had a place in the Royal Court and he carried out diplomatic missions to several countries for Henry VII.
4. Wolsey was the brains behind the army during Henry's invasion of France in 1513. He organised the equipment and transport. At the battle Henry's allies backed out so it didn't achieve much. However he did win at 'The Battle of the Spurs', which Henry described as thrilling, but was really own pursuit of French cavalry.
5. Henry appointed Wolsey as Bishop of Lincoln and Archbishop of York, which was the second most powerful position in the English Church.
6. The Pope appointed Wolsey a cardinal. This is the highest rank in the Catholic Church.
7. Henry appointed Wolsey as Lord Chancellor. This was the highest role in He
l. ened

Key Facts

Domestic Policies

2. Enclosures were a cause of the poor's problem as they could not use the common land. Wolsey set up a commission to look into enclosures and this commission said it was wrong. It said fences should be taken down. From 1517 held 260 cases against **Enclosures** but the nobility did it anyway.
3. **Star Chamber** - it was a court which made it easier for the poor to bring cases against the rich to justice. Wolsey sat over this court. It failed because there were too many cases for them to hear
4. **Subsidy** – reformed taxes made them based on income. Wolsey raised over £800,000 for the King between 1509 and 1520 but government spending was £1.700, 000.
5. **Amicable Grant** – Tax to pay for the French war. It was meant to be a friendly gift It was a tax of a third on the property of priests and of a sixth on the property of ordinary people. They had 10 weeks to pay it. The **Amicable Grant** tax led to a rebellion of 4,000 men (Suffolk). Henry sided with the nobility over Wolsey and the tax was scrapped.
6. **Eltham Ordinances** – got rid of sick and old servants. It cut spending on food. It reduced the privy chamber from 12 to 6. It was Wolsey's attempt to reduce spending and the power of the nobility Henry didn't accept it so it never happ

Week 15 - Henry and His Ministers

Wolsey's Foreign Policies

1. **Battle of Spurs** (France – captured Tournai and Therouanne) Opponents Francis 1st (France) Charles V (Spain) Papal States , Scotland.This was a minor victory for Henry but while this was happening Catherine of Aragon had a much bigger victory against James IV of Scotland at the Battle of Flodden
2. **Treaty of London, 1518**- Henry and Wolsey were seen as the peacemakers for creating a treaty in which the Catholic European powers pledged peace in order to focus on the potential Muslim invasion from the East.
3. **Field of Cloth of Gold** -Henry and Francis trying to outdo each other – prevent war with France – gain status. Wolsey played France and Spain off against each other.
4. Charles V took Francis I hostage at the Battle of Pavia in 1525 but released him before Henry could take advantage of France being without a leader.
5. The English involvement in the French/Habsburg war (1522-25)had cost £430,000 but had achieved nothing.The failure of the Amicable grant prevented any further involvement for England in wars with France
6. England signed the **Treaty of More (1525)**with France.Henry agreeing not to invade France and give up his claim to be king of France in return for the French pension.
7. **In 1527 The Treaty of Westminster was signed between** France and England. They both agreed to threaten Charles V with armed intervention if he did not seek to improve relations with France and England.
8. **In 1527** the Habsburg (Holy Roman Empire) troops captured Rome and the Pope became a virtual prisoner of Charles V.
9. When Francis and Charles sign the Treaty of Cambrai , England is left isolated

Annulment Crisis

In 1509, Henry VIII married Catherine of Aragon.However, they had to request permission from the Pope to get married as the church forbade a man to marry his brother's wife and Catherine had previously been married to Arthur..Catherine of Aragon testified that she and Arthur had never consummated their marriage.Catherine and Henry were quite happy to start with. They conceived at least six times before 1518.Catherine of Aragon only had one daughter, Mary, who was born in 1516. She miscarried at least two boys.She couldn't give Henry a male heir.

By 1524 Henry stopped sleeping with Catherine as she was getting older (she was 39 years old)Henry blamed it all on Catherine. He said she had failed to do her duty by not having a son.Henry believed that by marrying his brother's wife he had broken Christian law and this was God's way of punishing him (leviticus). Catherine denied that Arthur and her had ever consummated their marriage.At this time Henry had also fallen in love with another woman, Anne Boleyn.

In 1522, Anne Boleyn became maid of honour to Catherine of Aragon.Henry instructed Wolsey to approach Pope Clement VII in 1527 to annul his marriage to Catherine of Aragon so he could marry Anne instead.He claimed that the previous Pope, Julius II, should not have let Catherine of Aragon marry Henry after she was married to his brother. The Pope sent a man called Cardinal Campeggio to lead an enquiry into Henry and Catherine's marriage.

There were various factors that made the annulment difficult to get. One factor was Charles V he controlled the Pope and Catherine was his aunt.**July 1529**- The Pope recalled the annulment case to Rome, so the case would not be decided in England and therefore Henry would probably not get the annulment. A group of nobles tried and failed to bring about Wolsey's downfall.

Key Knowledge - the reasons Wolsey fell from power

EnemiesWolsey made some powerful enemies during his time in power. The nobility resented Wolsey's position as Alter Rex believing they were the king's natural advisors. Wolsey's low birth and extreme wealth annoyed them. His domestic policies did not help the relationship. Wolsey's Background and riseWolsey was from a poor background. His dad was a butcher.He attended Oxford University aged 15 which was funded by his uncle. He studied theology (the study of religion) so he could rise up the social hierarchy.He was intelligent, ambitious and motivatedHe worked his way up the Catholic hierarchy starting as a chaplain to the Archbishop of Canterbury then Henry VII who made him Royal Almoner. He had become a Cardinal by 1515. His organisational skills and talents were recognised by Henry when he organised the french campaign.He set up the Treaty of London in 1518 and the Field of Cloth of Gold in 1520 which helped establish Henry as an important figure in European politics.Wolsey's main enemy was the Duke of Norfolk , uncle to Anne Boylen. Norfolk wanted to be Henry's chief advisor and he spread rumours that Wolsey was delaying the annulment.

Domestic Policies -the things that happen in England Wolsey tried to raise money to go to war against France in 1525 through the introduction of the **Amicable Grant**. This was a tax introduced without the permission of parliament that the nobility had 10 weeks to pay. Many disliked this and there was an uprising in East Anglia in which 4,000 rebels led by the Duke of Suffolk tried to protest about it. The King was forced to side with the nobility, cancel the grant which meant he could not go to France and he blamed what happened on Wolsey. Wolsey used the **Court of Star Chamber** to deal with court cases brought by poor people. He wanted to end corruption from the rich. Wolsey didn't have time to deal with this properly but it annoyed the rich who could not bribe their way out of court. He tried to stop the rich **enclosing** land. Although Wolsey stopped enclosures and brought 233 cases to court as soon as the commissioners left the rich enclosed the land again. He tried to reduce the number of people in Henry's royal court in 1526 through the **Eltham Ordinances**. The aim had been to reduce costs and the influence of the nobility (the number of nobles in the bedchamber would be reduced from 12 to 6). He never made any changes in the end. Wolsey was successful in reforming the tax -his new **subsidy** based on income worked

Alliances (Foreign policy)- aim had been to raise Henry's Status, avoid war and avoid England being left out in alliances. Wolsey set up the **Treaty of London in 1518** (countries came together and agreed they would not go to war against them. They would help the Pope against the Turks) and the **Field of Cloth of Gold** in 1520 which helped establish Henry as an important figure in European politics. (Henry and Francis 1st meet and engaged in days of feasting and tournaments). Both worked but were only short lived. Wolsey agreed an alliance with Charles V in 1521. In 1525 Francis and Charles fought at the **Battle of Pavia** (Northern Italy). The French army was destroyed and Francis I was taken prisoner. Henry and Wolsey asked Charles to stage a joint invasion of the now leaderless France. Wolsey proposed that France be split into two and Henry would be known as the King of France. Charles did not agree to this. Instead he released Francis. The English involvement in the French/Habsburg war had cost £430,000 but had achieved nothing. In 1525 Wolsey agreed an alliance with Francis I. The **Treaty of More was signed in 1525**. This was a peace treaty between England and France.

Henry agreed to give up his claims to France in return for an annual payment from the French.

In 1528 France and England declared war on Charles and Francis invaded the Italian Peninsula.

No English troops were ever sent to fight, which made the English seem like they were not a serious international player.

By 1529, Charles V and Francis I had signed the Treaty of Cambrai. This was a treaty that agreed they would not fight each other. Wolsey was only told about it at the last minute which showed Henry had been excluded from European politics.

STEP 2: CREATE CUES

What: Reduce your notes to just the essentials.

What: Immediately after class, discussion, or reading session.

How:

- Jot down key ideas, important words and phrases
- Create questions that might appear on an exam
- Reducing your notes to the most important ideas and concepts improves recall. Creating questions that may appear on an exam gets you thinking about how the information might be applied and improves your performance on the exam.

Why: Spend at least ten minutes every week reviewing all of your previous notes. Reflect on the material and ask yourself questions based on what you've recorded in the Cue area. Cover the note-taking area with a piece of paper. Can you answer them?

STEP 1: RECORD YOUR NOTES

What: Record all keywords, ideas, important dates, people, places, diagrams and formulas from the lesson. Create a new page for each topic discussed.

When: During class lecture, discussion, or reading session.

How:

- Use bullet points, abbreviated phrases, and pictures
- Avoid full sentences and paragraphs
- Leave space between points to add more information later

Why: Important ideas must be recorded in a way that is meaningful to you.

STEP 3: SUMMARISE & REVIEW

What: Summarise the main ideas from the lesson.

What: At the end of the class lecture, discussion, or reading session.

How: In complete sentences, write down the conclusions that can be made from the information in your notes.

Why: Summarising the information after it's learned improves long-term retention.

WEEK 1: Cornell Notes (Homework task 1)

Date: 2nd September 2024	Topic: Ideas around Illness 1250-1500	Revision guide page:
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links	Notes
Questions	

Summary

WEEK 1: Exam Question (Homework task 2)

Date: 2nd September 2024

Question: Describe one key feature of Ideas about causes of Disease. [2]

Describe one key feature of the Theory of the Four Humours.[2]

Answer:

WEEK 1: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 2: Exam Question (Homework task 2)

Date: 9th September 2024

Question: Explain one way in which ideas about illness in the period 1500-1700 was different to ideas about illness in the period 1700-1900

Answer:

WEEK 2: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 3: Cornell Notes (Homework task 1)

Date: 16th September 2024	Topic: Ideas about the cause of illness Modern Day	Revision guide page
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links	Notes
Questions	

Summary

WEEK 4: Exam Question (Homework task 2)

Date: 23rd September 2024

Question: Describe one key feature of prevention of disease 1250 to 1500
Describe one key feature of medics 1250-1500

Answer:

WEEK 4: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 5: Cornell Notes (Homework task 1)

Date: 30th September 2024	Topic: Approaches to treatment and prevention 1500-1700	Revision guide page
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links	Notes
Questions	

Summary

WEEK 7: Cornell Notes (Homework task 1)

Date: 14th October 2024	Topic: Approaches to treatment and prevention 1900-present	Revision guide page
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links	Notes
Questions	

Summary

WEEK 9: Cornell Notes (Homework task 1)

Date: 4th November 2024	Topic: Medicine on the western front.Part 1	Revision guide page
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Questions	

Summary

WEEK 11: Cornell Notes (Homework task 1)

Date: 18th November 2024	Topic: Medicine on the Western Front Part 2	Revision guide page:
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links	Notes
Questions	

Summary

WEEK 11: Exam Question (Homework task 2)

Date: 18th November 2024

Question: Describe one key feature of Gas attacks on the Western Front
Describe one key feature of other wounds on the Western Front

Answer:

WEEK 11: Exam Question review and improvement (Classwork)

Question:

Answer:

WEEK 12: Assessment Week Revision (Homework task 1)

Date: 25th November 2024	Topic
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WEEK 12: Assessment Week Revision (Homework task 2)

Date: 25th November 2024	Topic
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WEEK 14: Cornell Notes (Homework task 1)

Date: 9th December 2024	Topic: Henry and Wolsey	Revision guide page
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links	Notes
Questions	

Summary

Week 2 1500-1900 Illness

Revision Card on	Answers
<ol style="list-style-type: none">1. What was Humanism?2. What was the Enlightenment?3. Who was Thomas Sydenham?4. What did he discover?5. When was the printing press invented?6. whose theory was the germ theory?7. Who discovered particles were airborne?8. What did Robert Knoch do?	



Week 4 Treatment and prevention

Revision Card on	Answers
<ol style="list-style-type: none">1. What was Phlebotomy?2. What were the three ways of doing Phlebotomy?3. What was purging?4. How did the church think disease should be cured?5. Who were apothecaries?6. What were hospitals used for?7. Who ran the hospitals?	

Week 6 Treatment and prevention

Revision Card on	Answers
<ol style="list-style-type: none">1. Where did Florence Nightingale train?2. Why were her family against her being a nurse?3. What war did Nightingale nurse in?4. What had been used as pain relief before laughing gas?5. What did Simpson discover?6. Which monarch used Lister's discovery?7. What did Lister discover?	



Week 8 Case Studies

Revision Card on	Answers
<ol style="list-style-type: none">1. What spread the Black Death?2. How many people died from the Black Death in England?3. Name one treatment for the Black death4. How many people died of smallpox in 1796?5. What did Jenner discover?6. When did the government pay for a vaccine for children?7. Who invented a vaccine for tetanus and diphtheria?	

Week 10 Medicine on the Western front

Revision Card on	Answers
<ol style="list-style-type: none">1. What was RAMC?2. What did field ambulance transport include?3. How many patients could a Base hospital hold?4. What did Antoine Deoage find?5. Who created a new antiseptic solution in 1915?6. Who discovered x-rays?7. What did Thomas Splint do to reduce the death rate from broken bones?	



Week 15 Henry VIII

Revision Card on	Answers
<ol style="list-style-type: none">1. When was the Treaty of London?2. What did the Treaty of London decide?3. What happened at the Field of the Cloth of Gold?4. Who was Henry VIII's first wife?5. Why did he want to annul his marriage to her?6. Why was the annulment difficult to get?7. Give two reasons why Wolsey fell from power	