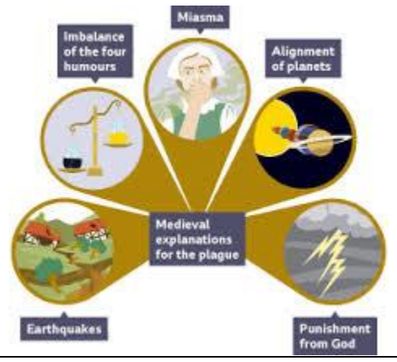
Year 11 Final revision notes

Yellow: Changes

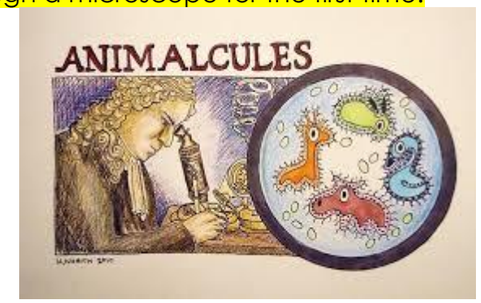
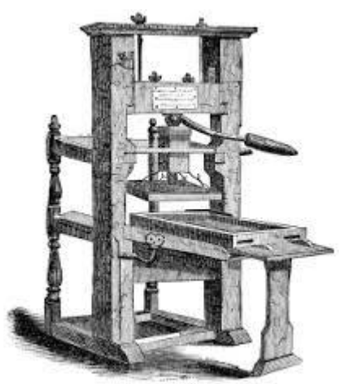
Green: Continuity- things that stayed the same

1250-1500- Medieval

Cause	Treatment	Prevention	Case Study
Religion- punishment from God Theory of the 4 Humours- Galen and Hippocrates An imbalance of the humours would case a patient to be ill. Astrology- alignment of the planets/stars Miasma- bad air causes disease Very few ideas aside from this were spread as the church controlled what was published as it was the monks who copied the books. The church also controlled the physicians training and they led the universities.  	Humoural treatments eg. Purging, bloodletting (and the use of leeches), hot baths Theory of Opposites (Galen) Religious: Prayer, visiting holy places, the King's touch Herbal remedies were used by most people and create by apothecaries and local wise women Superstitious: Carrying charms Hospitals were ran by the church- Care not cure. Ran by monks and nuns but focussed on religious treatments such as prayer. Barber surgeons would complete surgery which as removed lumps and teeth- this was often unclean (the bloodier the apron, the better) Most people couldn't afford a physician so relied on local women to offer care. Those with leprosy were sent to Lazar houses	Prayer Flagellants- whipping Going on pilgrimage to a holy shrine Regimen Sanitatis- exercise, bathing etc. Purifying the air- eg burning waste or carrying sweet smelling herbs and flowers Medieval towns tried to keep the streets clean and punished those who did not.  	**Black Death- 1348** Caused by the alignment of the planets and sent as punishment from God. Some even believed that the jews were poisoning the wells Strangers were not allowed to enter villages Streets were NOT cleaned- they believed the foul waste might drive the miasma away Prayer, fasting and confession were promoted by the church. 

1500-1700- Renaissance

Change Continuity

Cause	Treatment	Prevention	Case Study
Religion- punishment from God Theory of the 4 Humours- Galen and Hippocrates Astrology- alignment of the planets/stars Miasma- bad air Animalcules- small seeds in the air spread illness- idea linked to Miasma. This could be seen through a microscope for the first time.  	Humoural treatments eg. Purging, bloodletting, hot baths Religious treatments such as prayer and pilgrimage Herbal remedies eg. Theriaca. Herbs from around the new world were introduced (eg. Tobaccos) More alchemy was used eg. Chemical cures (metals) Thomas Sydenham (The English Hippocrates): illnesses can be categorised into species. We should observe symptoms and treat them as 1 illness, not individual symptoms. Hospitals: Care not cure!	Prayer Flagellants- whipping Going on pilgrimage to a holy shrine Regimen Sanitatis- exercise, bathing etc. Sweet smelling herbs: place strong-smelling herbs and flowers over doorways and windows to prevent bad air from entering their house Pest houses were set up to treat people with infectious disease, rather than hospitals. 	The Great Plague- councils ordered to clean the streets, kill stray cats and dogs and burn buckets of tar. Houses were marked with an X and people suspected of being infected were told to isolate. (40 days) Plague Doctors Sweet smelling herbs were used including posies as people walked through the streets. Plague Doctors Buckets of tar were burned in the street to remove the Miasma. Councils were ordered to do this, as well as clean the streets. People chewed tobacco to fight off the Miasma. Animals were banned inside the city as it was thought they could spread the illness. Events that attracted large crowds, such as plays and games, were banned to prevent the illness spreading through human contact
People: William Harvey- Heart pumps blood around the body like a pump. (disproved Galen and his belief that blood was created in he Liver). He discovered the use of arteries, veins and capillaries (use a microscope to prove this) Andreus Vesalius- Anatomist who drew detailed images of the human body. He disproved ideas of Galen and used human bodies to dissect which was previously banned by the church. Eg. The Jaw has 1 bone, not 2, Humanism- people now started to look at the world around them for answers rather than look to God. Sydenham was an example of a humanist. Doctors training still used text books however they were encouraged to do more observations including dissections.	Spread of ideas: Printing Press (1440)- took control away from the church Royal Society 1660- Scientists and Doctors working together to improve understanding (Had the Royal Charter given by the King) Dissolution of the Monasteries- Henry wanted a divorce so splits from the Catholic Church- this removes some of the influence of the church. Eg. The hospitals were now ran by charities and not the nuns. 		

1700-1900- Industrial or Early Modern

Cause	Treatment	Prevention	Case Study
More rational theories and religion is now considerably less important 1861- Louis Pasteur- Germ Theory Bacteria is in the air Bacteria causes decay Bacteria can be killed by sterilising or heating His theory applied to the beer industry. Robert Koch- applied the Germ theory to illness. He identified the bacteria which caused specific illnesses eg. Anthrax, TB, Blood Poisoning Disease can be spread in water- John Snow (1854). Cholera. He created a DOT MAP on a London outbreak and found the common cause was a water pump. He removed the handle and the outbreak stopped. It was discovered that there was a cesspit under the sewage system. This led to Joseph Bazelgette designing 1300 miles of new sewers in London. Some religious ideas continued and religious people opposed ideas including vaccination and the use of pain relief. 	Anaesthetic- James Simpson discovered Chloroform (he and his friends inhaled it and his wife later found them all unconscious!) However many people opposed as God intended people to feel pain and overdosing on chloroform can lead to death. Antiseptic- Joseph Lister discovered Carbolic Acid- this helped to prevent infection however it made patients itch and it could be highly flammable. More complex surgeries could now be done, however this led to surgery that was too risky and many died! Aseptic methods were used in surgery, for example sterilising equipment and hygiene is surgery. (gowns, masks, gloves) Early in the period, hospitals were overcrowded and often unclean. Florence Nightingale: Sent to the Crimean War (Scutari in Turkey). Here she cleaned the hospitals and over time the survival rate improved. She taught of the importance of pavilion hospitals that were light and airy. Surfaces should be white and cleaned regularly. She was known as the lady with the lamp. She made nursing a respectable profession and trained nurses, even writing a book 'Notes on nursing.' Mary Seacole also supported in Crimea, however as a black nurse she is less well known. Hospitals were also more specialised, for example hospitals were set up for infectious diseases. (Like pest houses previously)	Laissez faire attitude: the government thought that they should not get involved in the life of the people. Late 19th Century this attitude began to change and the government became more active in preventing illness. For example: 1848- The First public Health Act (Councils did not have to make the changes) 1854- The Great Stink- hot weather and sewage created a smell in London which drove the politicians out of Parliament. This put pressure on the government to create a new sewage system. (Joseph Bazelgette- 1300 miles) 1875- The Second Public Health Act (Compulsory) Streets had to be cleaned of waste, public parks must be created for exercise, public toilets should be built, improvement of sewers, clean drinking water. After his discovery of Germ, Pasteur worked on a vaccine to prevent rabies. Pasteur and Koch competed to create vaccines. They were rivals! Vaccinations- see Jenner -> 	Edward Jenner- 1796 Discovered that those who had cow pox (milk-maids) would not catch small pox, therefore cow pox could be used as a vaccination for small pox. This replaced the use of inoculations (Lady Montague who would give patients the same disease in the hope it would give them some immunity- however, this was dangerous and led to deaths.) Jenner tested his theory on James Phipps and it was successful! He tested this another 23 times and published his work in 1798. In 1852 the vaccine was made compulsory. By 1980, smallpox was completely irradicated. However, this was chance discovery and wasn't a method that could be replicated. 

1900-present day- Modern

Cause	Treatment	Prevention	Case Study
DNA is discovered: Rosalind Franklin- uses xray to photograph DNA Watson and Crick- Develop the idea of DNA- double Helix (receive the Nobel Peace Prize). Discover that some diseases are hereditary and chromosomal and can therefore be passed from parent to offspring. Eg. Down syndrome, Cystic Fibrosis, Diabetes 1990- The Human Genome Project maps the full human DNA- doctors can now identify which faulty genes cause specific illnesses eg. Breast cance BRACA gene. Development of technology to diagnose: CT scan MRI X-ray Blood Testing Blood pressure Use of cameras eg endoscopy 	Introduction of the NHS: Beveridge report said that poverty led to illness and the state needed to care for all. Previously only workers received medical treatment as they paid 'National Insurance.' In 1948 the NHS was introduced as free treatment at the point of access (funded for by the tax payer) - GP - Specialist Doctors - Dentists - Midwives - Health Visitors (early childhood) - Opticians Opposition: some tax payers believed that it would make people lazy- they would get health care regardless of whether they worked. Some doctors also opposed as they could no longer set prices and would be paid a standard rate. Paul Ehrlich- 1909 Magic Bullets- discovered that chemicals could be used to target and kill specific bacteria, leaving the rest of the body unharmed. To cure syphilis he and Hata tested 606 different compounds. Eventually he found that the cure was Salvarsan 606. Domagk also discovered Prontosil which could be used to cure blood poisoning. NHS	Lifestyle and illness linked publically by the government The Government Act on this for example Lifestyle campaigns: - 5 a day - Couch to 5K - Stop smoking campaigns **Mass vaccination programmes** A series of mass vaccination programmes have been launched by the government since c1900. These include: • diphtheria, 1942 • polio, 1950 • tetanus, 1961 • measles, 1968 • Covid-19, 2020 	Penicillin- Alexander Flemming attempts to find treatment for staphylococcus bacteria. In 1928 He goes on holiday and discovers that some food has gone mouldy and the mould has killed the bacteria in the petri dish. He discovers Penicillin by chance-pure luck! He experimented successfully but could not produce enough to treat patients effectively. Florey and Chain read about the discovery and want to investigate further. The UK government offer them £25 to research. This was not enough so they go to the USA. Meanwhile they try to produce it on mass but more funding was needed. The US government fund it was $80 million! By 1944, 2.3 million doses were used on soldiers who were suffering from infection. This was a major turning point. Smoking: 1948- link between smoking and cancer is discovered and proven Treatments: Chemotherapy, immunotherapy, and radiotherapy Prevention: • **Anti-smoking campaigns** warn people of the dangers of smoking. Eg. graphic warnings and photographs of damage and disease caused by smoking on cigarette packaging. • **Advertising campaigns** highlight the symptoms of lung cancer. There are regularly adverts on television • **Advertisements for cigarettes have been banned.** Previously, tobacco companies even sponsored sporting events and childrens TV • **Laws have been passed** that have raised the legal age of buying tobacco from 16 to 18. Smoking has been banned in public places. (2008)

Factors which led to change:

Science and technology: eg Germ theory and DNA

Government action: eg Public Health Act and Stop smoking campaigns

Individuals: Eg Harvey, Vesalius, Pasteur, Nightingale etc.

Communication: Spread of Ideas eg. Printing press and

Factors which limited change (caused things to stay the same- continuity)

Influence of religion: Eg. They continued to promote Galen's ideas

Lack of education: ordinary people couldn't access new research

Lack of technology: eg it took time for technology such as the microscope

Government Attitude: Laissez faire- the government shouldn't get involved in the life of the people