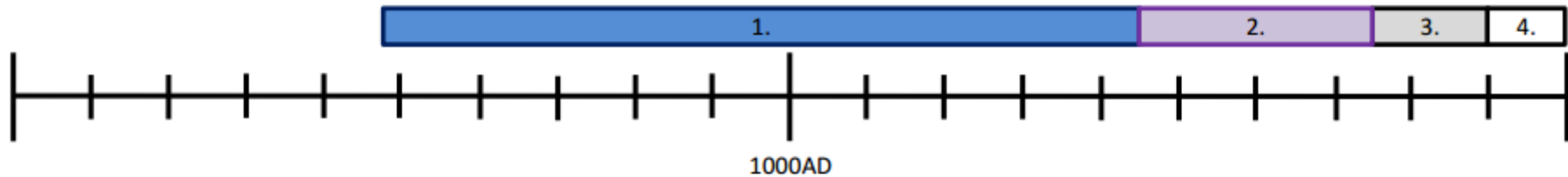# Term 1: Britain Health and the People Medieval Period 1000-1500
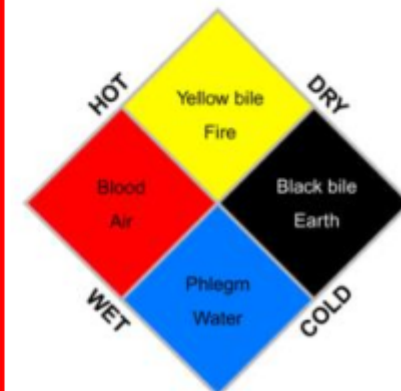
1. Britain: Health and the People Timeline:

1000AD

Period	Beliefs	Key developments and events		Individuals		
1. The Middle Ages 476-1445AD	A period of **turmoil and recovery** after the Fall of Rome. The rise of the Catholic Church.	Fall of the Roman Empire The Black Death	Islamic/Christian medicine	Bacon Rhazes Ibn-Sina	Ibn Nafis Galen (Ancient Greece)	
2. The Renaissance 1445-1750AD	An age of **discovery**, where people refocused on **education**, and **beauty**.	The Printing Press The Great Plague Challenging Galen	The 'New World' The Reformation Renaissance Art	Vesalius Harvey Paré	Paracelsus Gutenberg	
3. The Enlightment/ Industrial Revolution 1750-1900AD	A period with a huge boom in **population**, a focus on **science** and **eventual government help**.	Dissection Cholera outbreaks Germ theory	Public Health Acts Antiseptic/aseptic surgery Anaesthetics	Jenner Hunter Pasteur	Koch Simpson Lister	Halsted Snow Chadwick
4. Modern Day 1900AD-Today	A period of **governmental involvement** in public health and **science and technology**.	Magic Bullets World War One World War Two	The welfare state The NHS Antibiotics	Ehrlich Lloyd George Beveridge	Bevan Gillies McIndoe	Fleming Florey & Chain

2. Galen and Hippocrates:

- Before the Middle Ages, two doctors had been extremely important in the empires of **Ancient Greece and Ancient Rome**: **Hippocrates** and **Galen**.
- Before Hippocrates and Galen, most people believed that diseases were **supernatural punishments from the Gods**, which could be healed through **offerings and prayer**.
- Hippocrates is known as the "father of medicine": he argued that doctors should **observe patients** to find out what was wrong with them.
- Hippocrates believed that were **four fluids in the body**, called **humours**, which needed to be kept in balance to keep patients healthy. This could be achieved by controlling **exercise and diet**. Medicine was seen as a last resort.
- **Galen**, a Greek doctor in the Roman Empire, **built on Hippocrates' ideas** and made them **popular**.
- Both doctors wrote a huge number of **books**, many of which remained in use up to the 19th century.
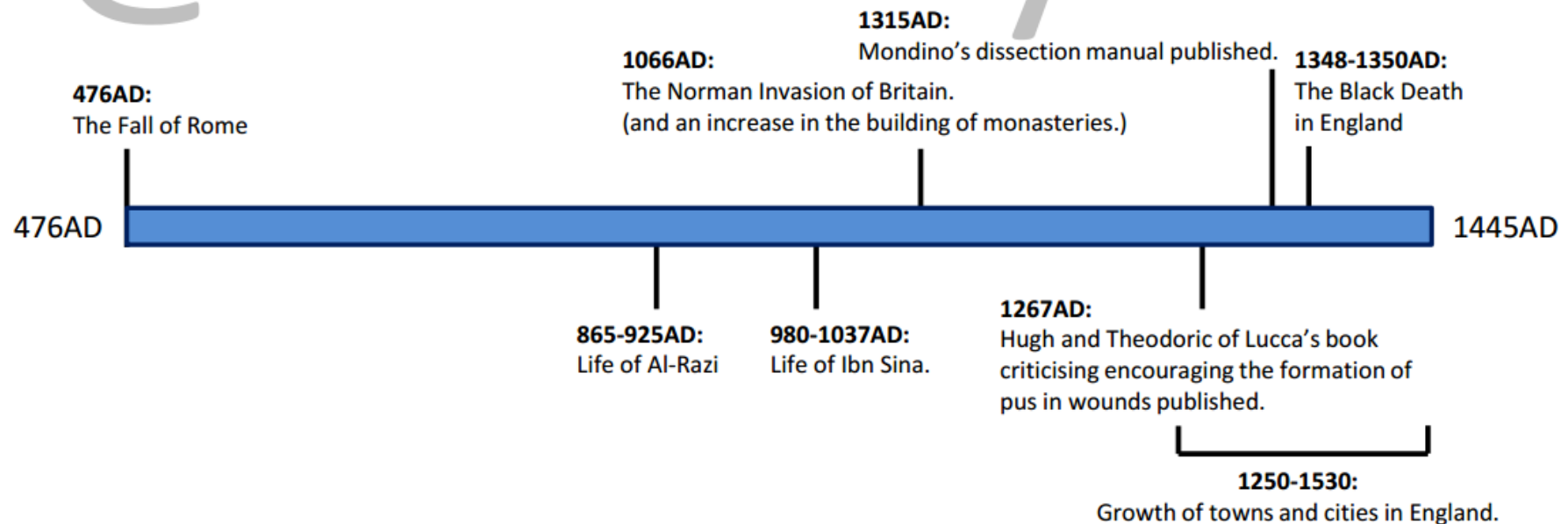
3. The Middle Ages:

- The Middle Ages was the period between the fall of Rome in 476AD and the **Renaissance**, which began in the 1300 and 1400s.
- At beginning of the Middle Ages, life was extremely difficult for most people, and survival became more important than literature, culture of art.
- However, as the Middle Ages progressed, living standards improved and people became more wealthy.

Key Event/Development:	Significance:
The Catholic Church became more important.	Many people looked to God and the supernatural to explain diseases. **Monasteries** were built, which served as the first hospitals in Europe. The Church passionately supported the works of **Galen**.
The large Roman Empire was replaced by multiple, smaller kingdoms.	It was more **difficult to travel** and spread new ideas. Many ancient texts were **destroyed**. **Wars** regularly broke out, giving surgeons the chance to practice.
The Islamic Empire developed in Africa and the Middle East.	**The Islamic Empire** preserved and translated many ancient texts from Greece and Rome. Individuals in the Islamic Empire, such as Ibn Sina, wrote books and did research.
The Black Death killed around 1/3 of Europe's population (14th century).	Living standards and freedoms for the poor improved.

1315AD:
Mondino's dissection manual published.

1066AD:
The Norman Invasion of Britain.
(and an increase in the building of monasteries.)

476AD:
The Fall of Rome

1348-1350AD:
The Black Death in England

476AD ———————————————————————— 1445AD

865-925AD:
Life of Al-Razi

980-1037AD:
Life of Ibn Sina.

1267AD:
Hugh and Theodoric of Lucca's book criticising encouraging the formation of pus in wounds published.

1250-1530:
Growth of towns and cities in England.

4. The Impact of Christianity on Medicine in the Middle Ages:

- After the **fall of the Roman Empire** in the 400s, Christianity began the dominant religion in Europe.
- Over time, the Church became extremely **wealthy and powerful**.
- The Church put emphasis on **tradition**, **its own authority** and a belief in **God**.
- However, the Church also believed that it should **follow Jesus' example** and help the poor, sick and those in need.

Patients at the Hôtel Dieu in Paris in the Middle Ages in 1482.

Area	Christian Medicine:
Disease	- The Church believed that **disease was sent by God as a punishment**. - The Church also had respect for the ideas of **Galen** as he believed in there only being one god.
Hospitals	- The church helped to set up hospitals throughout Europe during the Middle Ages. - **Monasteries** would also have small **infirmaries** which would offer beds to the poor and sick for free. - Many hospitals focused on providing **warm beds**, **prayer** and **food** for patients and people in need, rather than being places for treatment. - **Lazar houses** were up for people with **leprosy**, as it was seen as a highly **contagious** disease. - Many hospitals **did not have doctors**, but were run by monks or nuns.
Doctors	- Many doctors were **also members of the clergy**. Universities were often run by the Church. - Doctors were seen as people who would try to explain **why people had been punished by God**, to **predict symptoms** and then make people as **comfortable as possible** as they died. - Physicians who trained at university often did so without ever seeing a patient.
Mental illness	- Special hospitals were set up for the mentally ill, such as Bedlam in London. - Mental illness was seen as the same as other diseases: **punishment from God or possession**.
Attitude to Galen and ancient writers	- The Church **supported Galen's** ideas as Galen argued that there must only be one God. - The Church was willing to take steps to **silence people who challenged Galen**: Roger Bacon was imprisoned in the 1200s for suggesting that doctors should do their own research.
Preservation of knowledge	- Monks copied out the works of **Galen** and other ancient writers by hand. - By the **end** of the Middle Ages, some texts from the **Islamic Empire** were reaching Europe and being translated. However, the tension between the two religions meant that ideas from the Islamic Empire **travelled slowly**.

Keywords:

Galen:
A doctor during the Roman Empire who built on the work of Hippocrates to develop the four humours.

The four humours:
The belief that the body has four liquids (humours) which must be in balance to keep the body healthy.

Infirmary:
An area in a monastery where monks would care for the sick.

Leprosy:
A disease which can cause damage to the skin and limbs.

Contagious:
When a disease spreads easily.
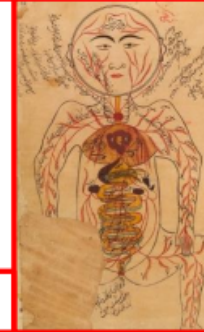
Clergy:
Members of the Church.

Symptom:
A physical or mental sign that something is wrong with the body or mind.

5. The Impact of Islam on Medicine in the Middle Ages:

- After the **fall of the Roman Empire** in the 400s, Islam became the dominant religion in the Middle East and North Africa.
- The Islamic Empire was a huge area of land which was ruled by a **Caliph**.
- The Islamic Empire placed huge emphasis on **science** and **education**.
- As a result, the Islamic Empire helped to **preserve knowledge** which would otherwise have been lost after the fall of the Roman Empire.

A page from Avicenna's "Canon of Medicine", a medical encyclopaedia completed in 1025.

Area	Islamic Medicine:
Disease	- Islamic doctors believed that disease was **natural**. - Doctors were supposed to **observe symptoms**, form a **diagnosis** and then prescribe the correct treatment for patients.
Hospitals	- Hospitals were designed to **treat disease**s. - Hospitals were **secular** and often contained **libraries** and **medical schools**. - Many hospitals had **separate wards** for different groups or conditions. - The first Islamic hospital was founded in Baghdad in 805 and by the 1100s every large town had a hospital. - Hospitals treated people from all different classes in society.
Doctors	- Doctors were **secular** and worked only as doctors. - Doctors trained by **working with a more experienced doctor** in a hospital.
Mental illness	- Mental illness was seen as a **natural** disease which could be treated. - Special hospitals were set up for people with mental illnesses.
Attitude to Galen and ancient writers	- Most Islamic doctors **accepted Galen and Hippocrates' theories**. - Some doctors, such as Al-Razi, challenged Galen's ideas but there was little support for this opposition.
Preservation of knowledge	- Islamic scholars **translated and copied** books into Arabic. - Many **Caliphs** advocated science and education, and put huge sums of money into the preservation of books and the building of **libraries**, such as the one in **Baghdad**. - Al-Razi and Ibn Sina (also known as Avicenna) wrote huge **medical encyclopaedias** which contained the work of ancient writers along with their own knowledge.

Keywords:

Caliph:
The name given to the leader of Sunni Islam.

Diagnosis:
When a doctor identifies the illness which a patient has.

Symptom:
A physical or mental sign that something is wrong with the body or mind.

Ward:
A separate ward in a hospital for a particular type of patient.

Secular:
Something which is not connected to religion.

Baghdad:
A city, which is now the capital of Iraq which was the largest city in the Islamic Empire during the Middle Ages.

6. Public Health in the Middle Ages:
- During the Middle Ages, public health was generally poor.
- **Epidemics** were common and some, like the **Black Death** wiped out a huge amount of Europe's population.
- Individuals like **De Chauliac** and **Alderotti** emphasised the need for a good diet and regular exercise but it was extremely difficult for people in the Middle Ages to avoid disease.

Factor:	Significance:
Taxes were unpopular and governments often had to spend a large amount of money fighting wars.	Any laws towns introduced were **difficult to enforce**. Poor areas of towns and cities were not cared for.
Many towns and cities did not have **paved streets** and had **open sewers**. These sewers would often overflow. Most human waste was collected in **cesspits** emptied by **gongfermers**.	Bacteria from waste would regularly come into contact with people and clothing.
Between 1250 and 1530 the population of towns grew.	Diseases spread more quickly due to overcrowding.
People did not know about germs and disease.	Methods to control or cure diseases rarely worked.
Trade increased throughout the Middle Ages.	Diseases spread between towns and countries quickly.
People lived close to animals.	Diseases quickly spread **from animals and parasites**, such as fleas and ticks, to humans.

7. Monasteries in the Middle Ages:
- Monasteries in the Middle Ages were often much cleaner than other areas in Britain.
- They also served as the first hospitals since the Roman Empire (see the page about Christian and Islamic Medicine).
- There are a number of reasons why monasteries were usually healthier than other places in the Middle Ages.

Factor:	Significance:
Monasteries were usually **isolated**.	Monks avoided major outbreaks of disease.
Monks have a religious duty to be clean.	Monks would unintentionally wash away germs.
Monasteries were **wealthy** as people gave them goods in return for prayers.	Monasteries could afford facilities such as running water, good drainage systems and communal lavatories.
Monasteries were usually near rivers, allowing them to have running water and good **drainage systems**.	Waste didn't build up and monks usually drank clean water (or beer which would kill germs).

Keywords:
Taxes:
A certain amount of money which people have to pay to a council or government.

Open sewers:
A channel, open to the air, which carries away waste.

Cesspit:
A pit where liquid waste and sewage would be stored.

Gongfermer:
A person who was hired to empty cesspits.

Drainage systems:
A system of pipes or sewers which allows waste to be carried away from an area.

Fountains Abbey, Yorkshire

8. Medical care in the Middle Ages:

- In the Middle Ages there were a range of options which people could use when they were unwell.
- Most options for treatment were **ineffective** and reflected the strong influence of the **Catholic Church** on medicine.
- Alongside medical **professionals**, many people relied on **folk medicine** from healers in their communities.

Option:	Medical care offered:
Physicians	- Paid professionals who trained at **universities** (usually run by the church). - Treatments focused on **balancing the humours** and explaining **why God may have punished a patient**.
Barber-surgeons	- Barbers who trained as **apprentices** but also offered basic surgeries and treatments. - Treatments usually focused on **blood-letting**.
Wise women/men	- Ordinary people who lived in communities and gained their knowledge through **tradition** and **word of mouth**. - Treatments focused on **herbal remedies** and **supernatural cures**, such as **amulets**.
The church/saints	- People could go to **monasteries** or **churches** to ask them to **pray for their healing**. - Specific **saints** would be prayed to in order to treat different conditions.

9. Physicians in the Middle Ages:

- Physicians in the Middle Ages were trained. However, their treatments were almost always **ineffective**, they were extremely **expensive** and they were only available in **cities** and **large towns**.

Area	Situation in the Middle Ages:
Training	- Physicians would train at **universities**, most of which were controlled by the **Church**. - They would spend 7 years attending lectures and discussing ancient texts. - Most of the time physicians would complete university **without any hands on experience with patients**.
Diagnosis	- Medieval physicians believed in the **ancient Greek** method of observing patients and using their symptoms to produce a **diagnosis**. - In reality, physicians would only concentrate on the **pulse** and examination of the **urine**.
Treatment	- Most treatments by physicians involved **balancing the humours** through **bloodletting**, vomiting or inducing diarrhoea. - Doctors would often use **astrology** to determine the best time to treat a patient. - Doctors sometimes combined treatments with **supernatural approaches**, like charms.

Keywords:

Professional:
Someone who does something for a living.

Folk medicine:
Herbal and spiritual medicine which is based down via word of mouth.

Apprenticeship:
When someone learns by working alongside someone who is already qualified.

Bloodletting:
Opening a vein to allow a patient to bleed.

Saint:
A person (usually dead) who is recognised as being particularly holy by the church.

Supernatural:
Something which cannot be explained by science.

Astrology:
The study of the movement and position of stars and planets.

10. The Black Death 1348-1350:
- The Black Death was an epidemic which killed 1.5 million people in Britain between 1348 and 1350.
- It is actually two diseases, the **pneumonic plague** and the **bubonic plague**.
- The pneumonic plague causes coughing and a fever and is spread coming into contact with the **breath** or **blood** of someone with it.
- The bubonic plague causes swellings, called **buboes**, in the armpit and groin and is spread by fleas which carry the bacteria.

Causes	Reaction	Significance
What actually caused it: - Poor disposal of rubbish in towns encouraged rats. - As **trade** increased during the Middle Ages, diseases could spread more widely. - Towns and ports were **crowded**, meaning the disease spread quickly. - People hat poor diets, meaning their immune systems were weak.	**Individual people:** 'Cures' for the Black Death were ineffective. They included: - Drinking mercury - Self-flagellation (not popular in England) - Popping buboes - Praying - Avoiding sin - Attacking Jews (not in Britain) - Fleeing to the countryside	**Short term:** - 1/3 of Europe's population died. - Towns and cities suffered from **food shortages** due to the lack of **labourers** in the countryside. - This made food more **expensive.** **Medium term:** - **Living conditions and wages** for **peasants** improved: as there were fewer of them they were more valuable.

What people thought caused it:
- People at the time were **completely wrong** about what caused the Black Death.
- Most of their explanations focused on **supernatural** causes.
- People thought causes included:
  - The position of stars and the planets (astrology).
  - Jews poisoning wells.
  - God punishing people for their sins.
  - Bad air (miasma)
	Government:
	- Local councils tried to **quarantine** infected areas.
	- King Edward III ordered **church services** and **prayers** every day where people would ask forgiveness from God.
	- King Edward III tried to have streets in London cleaned to **remove bad smells**.
		Long term:
		- People began to become **resentful** of the **Catholic Church** as their cures hadn't worked and some priests had fled their towns.

Keywords:
Bubo:
A swelling in the armpit or groin.

Epidemic:
A widespread outbreak of one disease.

Pneumonic:
Something which affects the lungs.

Astrology:
The study of the movement and position of stars and planets.

Miasma:
The belief that bad smells cause disease.

Supernatural:
Something which cannot be explained by science.

Resentful:
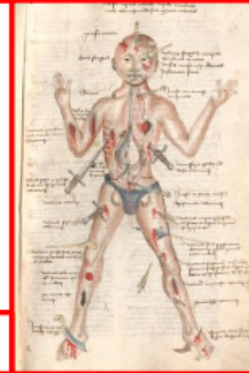When someone is angry because they feel they have been treated unfairly.

Self-flagellation:
When someone whips themselves.

11. Surgery in the Middle Ages:
- The Middle Ages was a period of **intense warfare.**
- This warfare gave **field surgeons** the opportunity to practice and to develop new theories and techniques.
- However, because of a lack of effective **antiseptics** and **anaesthetics**, surgery remained **basic and a last resort**.
- Most surgery for ordinary people would be carried out by **barber surgeons** and would focus on minor surgery or blood letting to balance the four humours.

A medieval wound man, which showed possible treatments for different injuries.

Area:	Situation in the Middle Ages:
Surgical training	- **Barber surgeons** were surgeons who learned through **apprenticeships** and who didn't go to university. - Many surgeons gained experience on the **battlefield** as **field surgeons**. - Individuals like **Frugardi** and **Mondino** wrote textbooks about surgery, but these were not widely available as books were expensive and time consuming to produce.
Available treatments	- **Barber surgeons** could perform **minor surgery**, such as **bloodletting**, remove small **tumours** or deal with **dislocated limbs**. **Trephination** was sometimes used as a treatment for epilepsy. - Most ordinary people avoided surgery as much as possible. - **Battlefield surgery** usually involved **amputation**. Battlefield surgery developed in some areas, such as Hugh and Theodoric of Lucca's methods for removing arrowheads.
Dissection and anatomy	- **Dissections** happened at universities. However, they were **rare** and did little to advance anatomy. - Influential individuals, such as **Mondino**, stated that dissections should be about proving Galen right, rather than trying to make new discoveries.
Dealing with pain	- Some herbal anaesthetics, such as **mandrake**, **opium** and **hemlock** were used. - However, dosages were difficult to get right, making their use dangerous. - Usually the patient was **held down** and operations were performed as **quickly as possible**.
Dealing with infection	- Most medieval surgeons, such as **De Chauliac**, believed that **pus was a sign of healing**. - **Hugh and Theodoric of Lucca** believed that pus was bad and used wine (a basic anti-septic) on wounds. Their ideas were generally unpopular.
Dealing with blood loss	- Most major wounds were closed using **cauterisation** which was extremely painful. - Islamic surgeon, **Abulcasis**, began using **ligatures** to tie blood vessels shut. However, knowledge from the Islamic Empire travelled to Europe extremely slowly.

Keywords:

Field surgeon:
A surgeon who works on the battlefield.

Antiseptic:
Something which destroys germs.

Anaesthetic:
Something which makes a patient unconscious or causes insensitivity to pain.

Apprenticeship:
When someone learns by working alongside someone who is already qualified.

Bloodletting:
Opening a vein to allow a patient to bleed.

Trephination:
Cutting a hole in the skull.

Amputation:
Cutting off a limb.

Cauterisation:
Burning a wound shut, often with a hot iron.

Ligature:
A thread which is used to tie blood vessels closed.