

Alf Wilkinson



AQA
GCSE
History

HEALTH AND THE PEOPLE



CONTENTS

Health and the People

How this book will help you in AQA GCSE History	v
Introduction: The big story of health and the people	1
1 Medicine stands still	9
1.1 Context: Medieval Britain	10
1.2 Where did medieval ideas about health come from?	12
1.3 Medieval medicine	14
1.4 Medical progress	18
1.5 Public health in the Middle Ages	22
1.6 Pulling it all together: Medieval Britain	26
2 The beginnings of change	30
2.1 Context: Early modern Britain	31
2.2 The impact of the Renaissance on Britain	33
2.3 Dealing with disease	37
2.4 Prevention of disease – a global success story?	44
2.5 Pulling it all together: Early modern Britain	47
3 A revolution in medicine, c1800–c1900	51
3.1 Context: Nineteenth-century Britain	52
3.2 The development of germ theory and its impact on the treatment of disease	54
3.3 A revolution in surgery	59
3.4 Improvements in public health	64
3.5 Pulling it all together: Nineteenth-century Britain	70
4 Modern medicine	74
4.1 Context: Twentieth-century Britain	75
4.2 Modern treatment of disease	77
4.3 The impact of war and technology on surgery	81
4.4 Modern public health	86
4.5 Pulling it all together: Modern-day Britain	95
Conclusion and review	99
Assessment Focus	106
Glossary	111
Index	113

Thinking about Health and the People

ACTIVITY

Below you can see some of the events that help us to tell the story of Health and the People over the last 3,000 years or so. Can you put these events in the appropriate place on the timeline?

- 1 Draw your own version of the timeline below and pencil in each of the events in the appropriate place.
- 2 You will find the correct dates for each of these events at the bottom of page 4. Plot the correct dates onto your timeline.
- 3 Which of these answers do you find surprising?
- 4 What does your timeline tell us about Health and the People?

You will be coming back to this timeline after you have finished the topic and will then have the opportunity to amend your thinking.

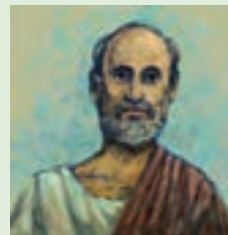
Event A: Treatments – penicillin, the first antibiotic

'We had an enormous number of wounded with infections, terrible burn cases among the crews of armoured cars. The usual medicines had absolutely no effect. The last thing I tried was penicillin. The first man was a young man called Newton. He had been in bed for six months with fractures of both legs. His sheets were soaked with pus. Normally he would have died in a short time. I gave three injections of penicillin a day and studied the effects under a microscope. The thing seemed like a miracle. In ten days' time the leg was cured and in a month's time the young fellow was back on his feet. I had enough penicillin for ten cases. Nine were complete cures.'

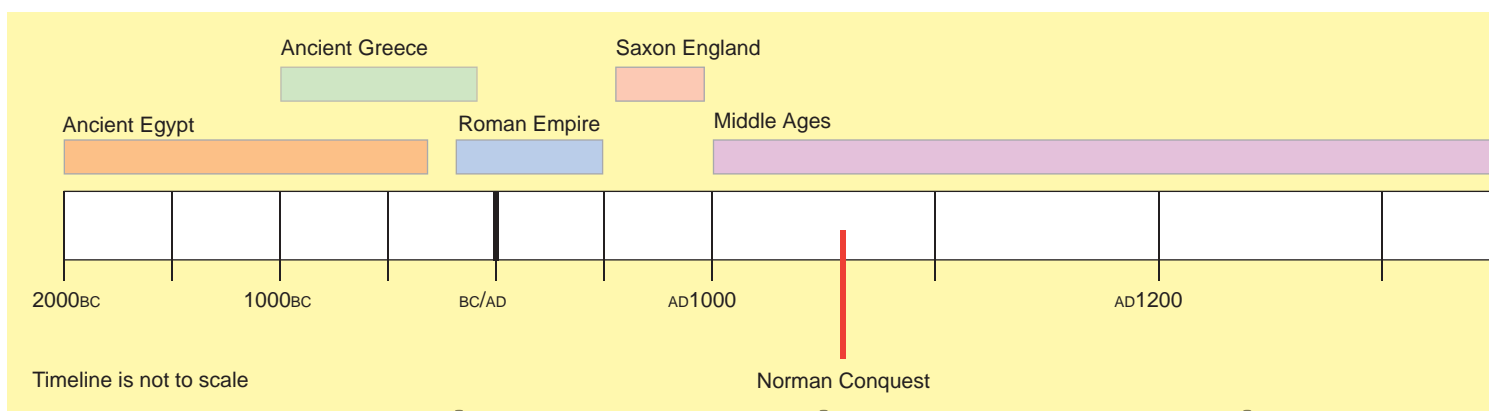
Event B: Treatments – herbal medicine

'Medicine for dimness of the eyes: take the juice of the celandine plant, mix with bumblebees' honey, put in a brass container then warm until it is cooked and apply to the eyes.'

Event C: Explaining disease – the Four Humours



Hippocrates wrote: 'Man's body contains Four Humours – blood, phlegm, yellow bile and melancholy (black) bile. When all these humours are truly balanced, he feels the most perfect health. Illness occurs when there is too much or too little of one of these humours or one is entirely thrown out of the body.'



Event D: Explaining disease – God sends disease



'Terrible is God towards men. He sends plagues of disease and uses them to terrify and torment men and drive out their sins. That is why the realm of England is struck by plagues – because of the sins of the people.'

Event F: Explaining disease – Pasteur and germ theory

Louis Pasteur, a French scientist, published his 'germ theory' suggesting that bacteria or 'germs' were the true causes of diseases. His germ theory replaced all previous ideas about the causes of disease.



Event H: Treatments – wash, exercise, diet

'Every day wash face and eyes with the purest water and clean the teeth using fine peppermint powder. Begin the day with a walk. Long walks between meals clear out the body, prepare it for receiving food and give it more power for digesting.'

Event J: Public health – fresh water, baths and sewers



Sextus Julius Frontinus wrote: 'There was a great increase in the number of reservoirs, fountains and water-basins. As a result the air is purer. Water is now carried through the city to LATRINES, baths and houses.'

Event E: Public health – the NHS begins



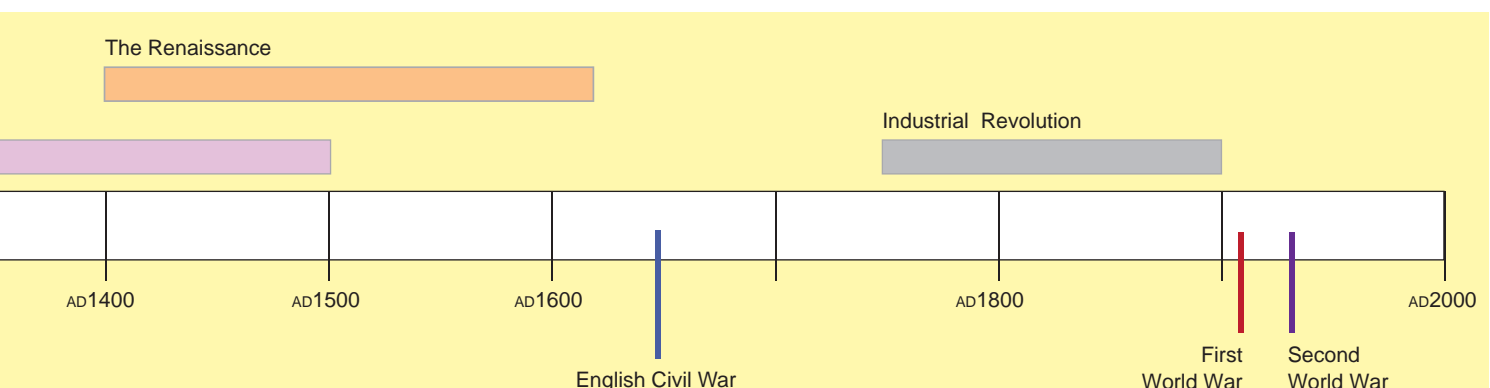
'On the first day of free treatment on the NHS, Mother went and got tested for new glasses. Then she went further down the road to the chiropodist and had her feet done. Then she went back to the doctor's because she'd been having trouble with her ears and the doctor said he would fix her up with a hearing aid.'

Event G: Treatments – the black cat remedy

'The sty on my right eyelid was still swollen and inflamed very much. It is commonly said that rubbing the eyelid with the tail of a black cat will do it much good so, having a black cat, a little before dinner I tried it and very soon after dinner the swelling on my eyelid was much reduced and almost free of pain.'

Event I: Surgery – without anaesthetics

Robert Liston, a famous London surgeon, once amputated a man's leg in two and a half minutes but worked so fast he accidentally cut off his patient's testicles as well. During another high-speed operation Liston amputated the fingers of his assistant and slashed the coat of a spectator who, fearing he had been stabbed, dropped dead with fright. Both the assistant and the patient then died of infection caught during the operation or on the hospital ward. Liston worked really fast because there were no ANAESTHETICS.



Treating the sick

Deciding what is wrong with you is only half the battle. How do you put it right? What *cure* should the doctor use to put right any illness? There are plenty of potential cures to choose from. Whole industries have grown up producing medicines, tablets and technology to treat patients, and to make money out of it. How is the doctor or specialist to decide which is the best treatment to use? What works for one person might not work for another. And how do they decide the right level of dose in each particular case? In other words, how do they get the 'cure' right?



Feeling poorly in the seventeenth century

In early 1685 King Charles II felt poorly. He called in his doctors. According to some accounts there were fourteen of them, who were often arguing over cause and potential cure. They were, of course, supposed to be the best doctors in the country! On 2 February Charles fainted, so the doctors had to decide what to do. First, they bled him, taking over 400ml of blood from his right arm. He did not respond, so they took another 200ml of blood, and gave him an **EMETIC**, to make him vomit. This was a mixture of antimony, sacred bitters, rock salt, mallow leaves, violet, beet root, camomile flowers, fennel seed, linseed, cinnamon, cardamom seed, saffron, cochineal and aloes. This would, in theory, clear any impurities out of his system. The next day they took more blood (300ml this time), and gave him a mixture of barley water and syrup to gargle. He was also given more laxatives to clear out his bowels. His treatment seemed to consist of continuous blood-letting, laxatives and emetics. Not surprisingly he became weaker and weaker. He didn't respond to the treatments and on the morning of 6 February Charles II died.

Recent research suggests that King Charles II died of kidney failure, probably linked to gout. Gout was a common disease among the upper classes at the time. The very worst treatment for kidney failure is to bleed a patient, so it appears that King Charles' doctors played a large part in killing him! So why did they bleed him? What were they trying to do? Were doctors in the seventeenth century so ignorant that they did not know the cause of the illnesses they were being asked to treat? Is the situation any different today? Today's doctors still find it hard to pinpoint the cause of some illnesses, and to effectively treat them.

ACTIVITY

Medicine mini-dictionary

As you work your way through this book you will come across various herbs, medicines, diseases or operations that you may not have heard of before. When you do, carry out your own research to find out about them. Write your own definition of each one, with notes, and create your own mini-dictionary of medicine through time.

THINK

- 1 Do you think King Charles' doctors knew the *cause* of his illness? Do you think they had a clear idea of how to *cure* the illness?
- 2 How similar, and how different, are the ways that Charles' doctors and modern-day doctors approach someone who is unwell?
- 3 In your opinion, has the way sickness is treated improved, or got worse, between 1685 and today? Explain your answer.

But people are healthier now, right?

You would think that people are healthier in today's world. People eat better, more regular meals, have higher incomes, there is much more food available, the majority are well-housed and warm, people are educated into making healthy choices. Surely that means they are healthier today? But it seems not everyone agrees.

Human Teeth Healthier in the Stone Age Than Today

(*Health Magazine*, 19 February 2013)

Medieval diets were far more healthy. If they managed to survive plague and pestilence, medieval humans may have enjoyed healthier lifestyles than their descendants today.

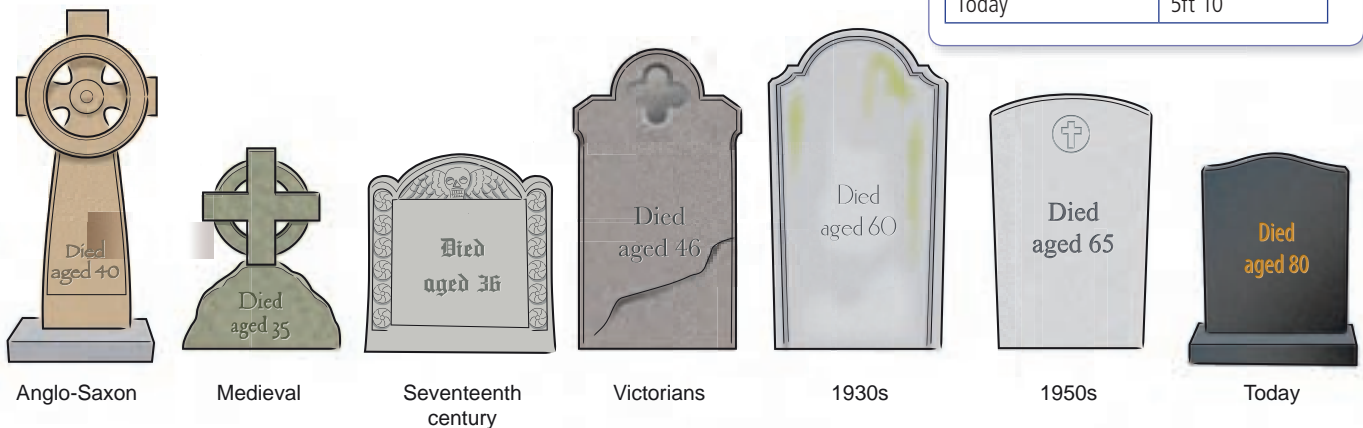
(BBC News website, 18 December 2007)

The UK is among the worst in western Europe for levels of overweight and obese people. In the UK, 67% of men and 57% of women are either overweight or obese. More than a quarter of children are also overweight or obese – 26% of boys and 29% of girls.

(*Guardian*, 29 May 2014)

The stories above cast doubt on the idea of people being healthier today than ever before. The story from *Health Magazine* is based on archaeological examination of teeth. They found evidence of fewer cavities, less oral disease and bone disorder than today. The BBC News website story is based on research into medieval records carried out by a Shropshire GP. The *Guardian* news story is taken from NHS England statistics. Can it really be the case that people today are less healthy than in medieval times? How can we investigate this idea further? How might you measure if people are healthier now than in previous periods of history?

One measure might be how long people live – if people live longer today then surely that means they are healthier?



Average age of death, of British males, compiled from various sources

The evidence is pretty clear from the data above. Men, on average, now live twice as long as they did in Anglo-Saxon times. Surely that tells us that men, at least, are healthier today than 1,000 years ago? But will our ideas change if we use another set of statistical data?

THINK

- What are the strengths of figures such as those showing the average age of death?
- What are the limitations of these kinds of figures? Remember, even as late as 1900 INFANT MORTALITY was as high as 170 for every 1,000 live births, while today it is below 4. High infant mortality means that *average* figures for LIFE EXPECTANCY are lowered.
- According to the data in Source 1, when were British men healthiest? How can you tell?
- According to this data, when were British men unhealthiest? How can you tell?
- How tall do you think, on average, British men will be in:
 - 2100
 - 2200
 - 2500?

SOURCE 1

Average height of British males, compiled from various sources, but mostly skeletal data

Period	Average male height
Anglo-Saxons	5ft 6"
Normans	5ft 8"
Medieval	5ft 8"
Seventeenth century	5ft 5"
Victorians	5ft 5"
Twentieth century	5ft 8"
Today	5ft 10"

THINK

- Can you think of any other measures we might use to decide whether or not people are healthier today than in previous centuries?

Making sense of all this data

SOURCE 2

A healthy living pyramid showing the proportions of different food groups in a healthy diet



People are living longer, and growing taller, at least according to the data shown here. Does that mean we are healthier? The figures on the previous page refer solely to men, and are averages. These figures therefore are only part of the picture. (There is much less skeletal data for women, for example, hence there is not enough reliable information to compile a ‘height’ list for women covering the period we are studying.) Leaving aside the limitations of the data we are faced with a series of conflicting evidence; some data suggest people are now healthier, but equally some suggest people may live longer but are not necessarily healthier. How can we reconcile this conundrum, and begin to reach a conclusion?

It is very easy to get data for today, and for the last two centuries. Since Victorian times government has collected masses of data about every aspect of people’s lives. But how do you find meaningful data from the seventeenth century, or the thirteenth century? Would it perhaps be more helpful if we looked at child mortality, or deaths in childbirth: both of which have been major killers throughout much of history? What other aspects of people’s lives might we consider?

THINK

- 1 Find out what you would eat if you were to follow the Stone Age diet.
- 2 Why, if people are healthier than ever before, do they need all this advice?
- 3 Why are modern people so obese?
- 4 What are the foods we eat that are bad for us? And who decides?

Nowadays people are bombarded with advice on how to live a more healthy life: drink less alcohol, give up smoking, take more exercise, eat less sugar and fats, and so on. Nearly every week it seems new advice appears to help people deal with their unhealthy lifestyle choices. New diets are continually proposed. One of the latest is the ‘Stone Age diet’, where you eat and exercise like Stone-Age hunter-gatherers.

ACTIVITY

- 1 On your own version of the table below, keep your own ‘food diary’ for a week. Make a note of what you eat and when.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast food							
Breakfast drinks							
Lunch food							
Lunch drinks							
Dinner food							
Dinner drinks							
Snacks							

- 2 Study the ‘healthy living pyramid’ in Source 2. Then, using a different colour to represent each section of the pyramid, highlight your food diary to show how much food you are eating from each of the different groups.
- 3 Now use the pyramid to decide whether or not you are eating healthily.
- 4 If you are eating unhealthily, make a list of ways in which you could change your diet to make it healthier.

Keeping clean

You have already discovered from your timeline activity (see page 2) that the Ancient Greeks clearly knew of the link between cleanliness and healthiness. So why was it so difficult to keep clean throughout most of history?

The answer is much the same as the reason most people drank ale or ‘small beer’ instead of water throughout most of history – not because they were addicted to alcohol but because water was both expensive and very dirty! It was quite common for waste to be discharged into a river before drinking water was taken out of the same river. There were few laws and health regulations. Local corporations (councils) and mayors were reluctant to take action to provide clean water because it would cost money, and, as most people were relatively poor, it would be the small number of richer people who would have to foot the bill. People had to collect their water from wherever they could. That often meant the local river or stream. What is surprising is the lengths people went to in order to try to keep themselves and their houses clean. Some towns had public baths from the early 1500s and, of course, if you were rich you could have your own private water supply brought direct to your house.

Organising your thinking

At the end of each chapter you will be completing a ‘What happened to you if you fell ill?’ table. This consists of five different columns shown here, designed to help you reflect on the content you have studied in each chapter. Here we outline how this table works.

Diseases	Rich or poor/ Town or country/ Old or young	Practitioners	Likely treatment	Likely outcome

Everyone today gets treated the same, don't they?

If you are ill then under the National Health Service everyone has equal access to care, at least in theory. Whether you are rich or poor, live in the town or the countryside, are young or old, you get treated by the NHS. But consider this newspaper story, from January 2015, highlighting the inequalities in cancer care. It reports that in deprived areas patients sometimes get poorer treatment than in richer areas.

National Audit Report highlights gap between rich and poor which could prevent 20,000 deaths per year

(Daily Mirror, 15 January 2015)

Was this the case in the past? Did everyone get the appropriate treatment whether they could pay for it or not? We have already seen that King Charles II was treated very differently to any patient today, and he presumably had plenty of money to pay for medical attention.

SOURCE 3

A twentieth-century impression of life in medieval London



THINK

- 5 Why was it so difficult for most people to keep clean throughout most of history?
- 6 Do you agree that people are healthier today than they were in other periods of history?

Which kind of medical professional would you be treated by?

We have already seen that today you might be treated by a GP, a nurse-practitioner, a nurse, a specialist, a pharmacist or even someone who uses alternative medicine, depending upon your choice and circumstances. Some professionals you can approach directly, others you have to be referred to. There is a huge range of specialists highly trained in one area of expertise to ensure you get the best possible treatment. But was that always the case in the past?



What kind of treatment might you receive?

Again, there is a huge choice of treatments available, both to NHS and PRIVATE PATIENTS. Sometimes the patient is offered a choice of treatments, or even the opportunity to decline treatment if they so wish. Science and technology today play a huge part in both diagnosis (deciding what is wrong with you) and treatment. Again, we have already seen the difference in how Charles II was treated in the 1600s and how he would have been treated today. Was treatment even more different in medieval times, before the Renaissance and the beginnings of scientific enquiry?

SOURCE 4

Killer diseases of late twentieth-century Britain (Source: Office of National Statistics)

Cancer
Heart disease
Respiratory disease (e.g. flu)
Liver disease
Dementia/Alzheimer's disease
Accidents

How successful might your treatment be?

Most doctors today would be very surprised if their 'cures' for various illnesses didn't work. It might take a while to find the correct dose, or the right medicine, but usually, in most cases, patients recover. Some illnesses are more deadly than others. Some cancer recovery rates are still very low, for example. But other illnesses that were fatal in times gone by, like measles, have all but been eradicated.

Why things change

For each chapter you will create a factor chart, like the one below, to identify the most important factors for change. Examples throughout the period are shown here. We need also to consider *why* changes occur, and the consequences of these changes.

THINK

Study Source 4.

- 1 Which of these diseases do you think of as 'old people's' diseases?
- 2 Which of these diseases do you think of as 'young people's' diseases?
- 3 Which do you think of as 'lifestyle' or 'affluence' diseases?
- 4 Which do you think were killer diseases in earlier times?

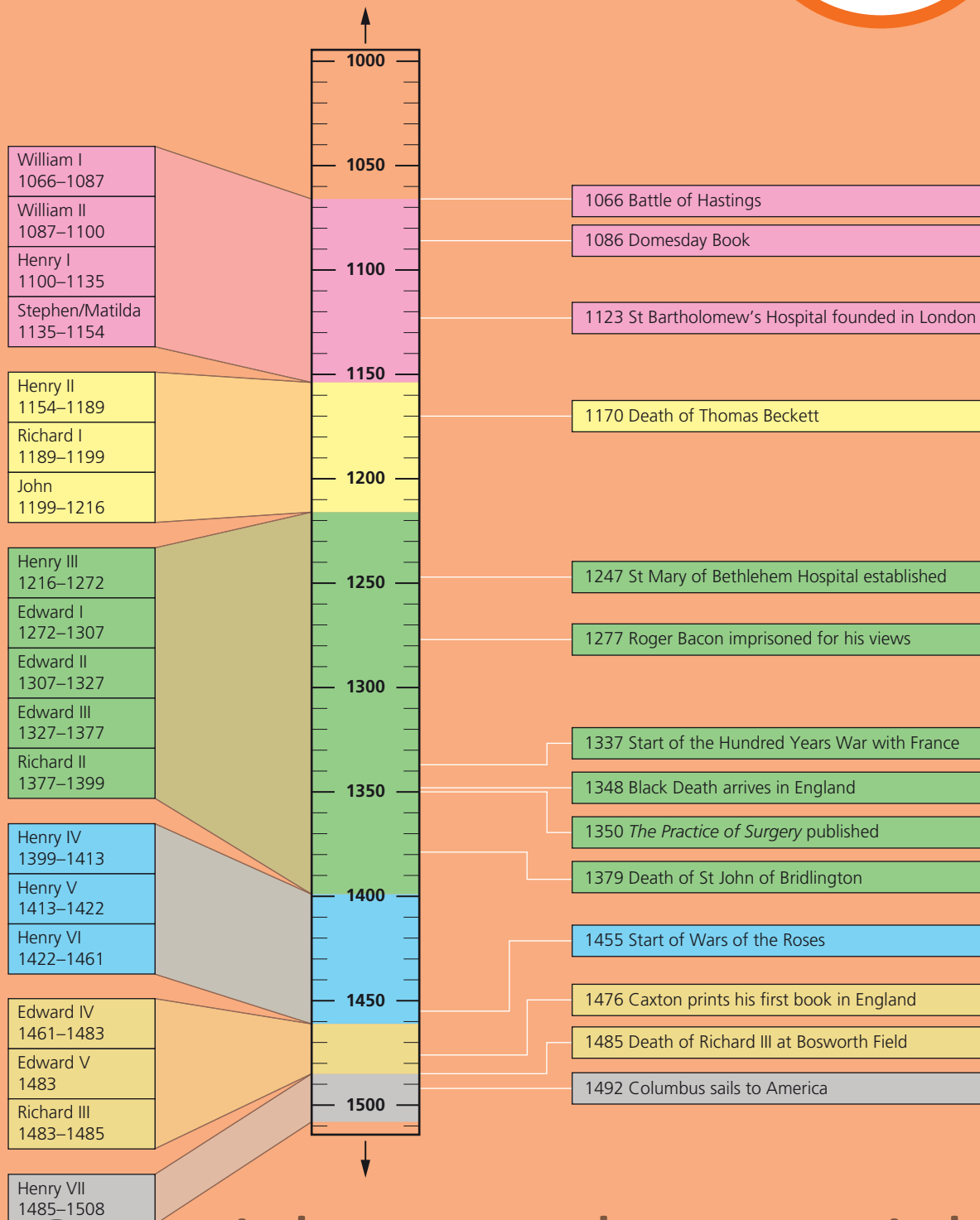
ACTIVITY

- 1 Can you think of one more example from history where each of these factors has created change?
- 2 Share these with the rest of your group and make a list for the classroom wall.

Factor	How each factor might influence health
War	The improvement of hygiene in hospitals because of the Crimean War
Superstition and religion	The setting up of medical schools and universities in medieval times in order to better train physicians
Chance	Alexander Fleming's discovery of penicillin
Government	The Labour Government introduces the NHS
Communication	William Caxton develops the printing press
Science and technology	The development of the microscope, probably in the Netherlands, in the 1590s
The economy	Pensions, introduced in 1909, because the economy was doing so well the rich could pay more tax
Ideas	The Beveridge Report in 1942 changed ideas by talking about the 'Five Great Evils'. This led to the Labour Party adopting the idea of a NHS, which they introduced when they won the 1945 election
Role of the individual	Edward Jenner pushes through his ideas on vaccination for smallpox

Medicine stands still

1



Copyright: sample material

1.1 Context: Medieval Britain



THINK

- 1 How would *you* summarise life in medieval Britain? Do you agree with the images we have chosen, or not? What do you think we have left out? Which images would you use to sum up life in medieval Britain? Why?
- 2 How much change do you think there was between 1066 and the 1450s?
- 3 Do you think people were better off in 1450 than they were in 1066?
- 4 What do you think happened to you if you fell ill in a medieval village?

Being ill in medieval times

Life for many people in medieval times was nasty, hard and short, but how long you lived, and your chances of surviving illness depended as much on who you were as on what treatment you received – if any! The rich were more likely to be able to afford treatment by a doctor than the poor, and you were more likely to find a medical practitioner in a town than elsewhere. Towns were more deadly places to live than villages, the young were more at risk than adults, and winter brought its own special problems. But then again, so did summer!

Medieval diseases

Famine and war were perhaps the main killers of this period. A bad harvest due to drought or flood, too hot or too cold weather, meant MALNOURISHMENT for many, and malnourished people more easily catch disease. ‘Saint Anthony’s disease’ was caused by a fungus growing on stored rye in damp conditions. Once the rye was ground into flour and baked into bread, those who ate it developed painful rashes and in some cases, even died. Dysentery, typhoid, smallpox and measles were all widespread. Some historians estimate that perhaps 10 per cent of England’s population in the early fourteenth century died of these diseases. Childbirth was a dangerous time for women, and it is also likely that 30 per cent of children died before the age of seven.

Accidents were common too:

At Aston, Warwickshire in October 1387, Richard Dousyng fell when a branch of the tree he had climbed broke. He landed on the ground, breaking his back, and died shortly after.

Not surprisingly, medieval people didn’t really understand the causes of most diseases so they focused on trying to cure the symptoms instead. The best practitioners tried, following Hippocrates, to do no harm to their patients. But many of the treatments seem brutal and harmful to us. For example, a common ‘remedy’ for rheumatism was to wear a donkey skin and a treatment for asthma involved swallowing some young frogs. Perhaps you might prefer the treatment for ringworm – wash your hair daily with a male’s urine!

Not all cures were so fanciful, however. *Bald’s Leechbook*, a tenth-century Anglo-Saxon medical text, suggests this cure for eye problems:

Take cropleek and garlic, of both equal quantities, pound them well together, take wine and bullocks’ gall, of both equal quantities, mix with the leek, put this then into a brazen vessel, let it stand nine days in the brass vessel, wring out through a cloth and clear it well, put it into a horn, and about night time apply it with a feather to the eye.

Modern microbiologists recently recreated this medicine and in tests found it to be at least as effective as modern medicines used to treat the superbug MRSA. Perhaps those old herbalists really did know a thing or two about how to treat disease...

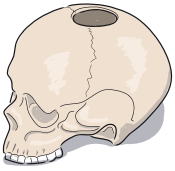
SOURCE 1

Vomiting a fox, from an illuminated manuscript

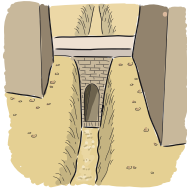


THINK

- 5 Study Source 1. Do you think medieval people really vomited a fox? If not, why is this picture included in a medieval manuscript? What does it tell us about our sources for medieval medicine?
- 6 Why do you think young people were so at risk of dying from ill-health in medieval times?
- 7 Which of the medieval killer diseases are still dangerous today?
- 8 Can you explain why a medicine from *Bald’s Leechbook* in the tenth century should be as effective as a modern medicine? What does that tell us about medieval medicine?



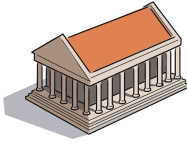
a) A Stone Age skull trepanned



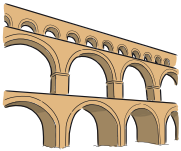
b) An Indus Valley sewer



c) An ancient Egyptian physician



d) A Greek Asclepius



e) A Roman aqueduct



f) A Muslim doctor treating his patient

1.2 Where did medieval ideas about health come from?

FOCUS

Archaeological evidence has revealed that successful medical care was taking place as far back as the Stone Age. Civilisations like Ancient Egypt, Ancient Greece and Ancient Rome had hospitals, medical experts and texts widely available, and were in fact more advanced than in the West. This topic explores these methods and beliefs, and focuses particularly on the pioneering and influential work of Hippocrates and Galen.

Look at the illustrations on the left. People have always known how to look after themselves. There is clear evidence of successful operations carried out with flint tools in the Stone Age. Archaeological evidence shows that some of these patients survived. The Indus Valley civilisation was well aware of the importance of clean running water and sewers. There is even a structure identified as a huge public bath-house in Mohen Daro in Pakistan, dating from around 2500BC. Pharaohs in Ancient Egypt had their court physicians, and we know about some of their medical practices from papyrus records recovered from tombs. The Greeks had ASCLEPIONS, or places of healing, that were temples to Asclepius, the god of healing. The Romans went to great lengths to bring fresh water to their towns and cities. Bath-houses and underfloor heating can be found in most Roman towns, for example Vindolanda in Northumberland. And, as we have already discovered, *Bald's Leechbook* is an Anglo-Saxon medical text full of remedies and medicines.

SOURCE 1

Muslim doctor Usama ibn Munqidh writing in around 1175

They brought to me a knight with a sore on his leg; and a woman who was feeble-minded. To the knight I applied a small POULTICE; and the woman I put on a diet to turn her humour wet. Then a French doctor came and said, 'This man knows nothing about treating them'. He then said, 'Bring me a sharp axe'. Then the doctor laid the leg of the knight on a block of wood and told a man to cut off the leg with the axe, upon which the marrow flowed out and the patient died on the spot. He then examined the woman and said, 'There is a devil in her head'. He therefore took a razor, made a deep cross-shaped cut on her head, peeled away the skin until the bone of the skull was exposed, and rubbed it with salt. The woman also died instantly.

THINK

- 1 What, according to Usama ibn Munqidh (Source 1), were the main differences between Muslim and European medicine?
- 2 Can you explain these differences?

The influence of Arab medicine

Yet much of this medical knowledge seems to have been 'lost' during the so-called 'Dark Ages', after the Romans left. Muslim writers like Avi Senna played a very important role in saving much of this lost knowledge, translating the works of Ancient Greece and Rome into Arabic, which was eventually passed on to western Europe. At this time there is no doubt that Arabic medicine was much in advance of that in western Europe (see Source 1). Avicenna was one of the most celebrated philosophers and physicians in the early Islamic Empire. He wrote many texts on a wide range of subjects. Forty of his medical texts have survived, the most famous of which are the *Kitab ash-Shifa* (the *Book of Healing*) and the *al-Qanun fi al-Tibb* (*Canon of Medicine*). The latter is one of the most significant books in the history of medicine; for instance, it was printed in Europe at least 60 times between 1516 and 1574. The *Canon* remained a major authority for medical students in both the Islamic world and Europe until well into the 1700s. Another Arab doctor, Rhazes, who lived from AD860 to 932, wrote the first authentic description of the symptoms of smallpox.

From their establishment in the AD900s, Islamic hospitals were sites of medical education as well as healing. The most famous hospitals, including those in Baghdad, Damascus and Cairo, contained lecture rooms, pharmacies and libraries. As important as reading and mastering texts in the Islamic tradition was instruction – many students received practical training in hospitals. Some even observed patients at the bedside. Cleanliness was encouraged and hospitals were often centred around fountains, and cooling breezes circulated around the wards.

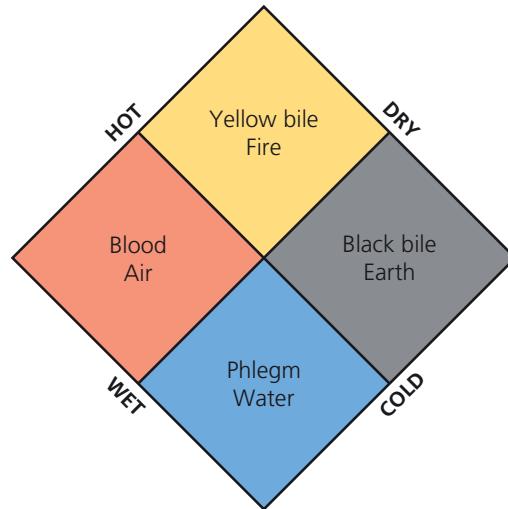
Hippocrates and Galen

Two men, perhaps more than any others, contributed to the Western view of medicine and health at this time. They were Hippocrates and Galen.

The theory of the Four Humours

Hippocrates wrote:

'The human body contains blood, phlegm, yellow bile and black bile. These are the things that make up its constitution and cause its pains and health. Health is primarily that state in which these constituent substances are in the correct proportion to each other, both in strength and quantity, and are well mixed. Pain occurs when one of the substances presents either a deficiency or an excess, or is separated in the body and not mixed with others.'



So to remain healthy a body needed to keep the Four Humours in balance. As you can see from the diagram, some humours are 'hot' and therefore create sweating illnesses; and some humours are 'cold', creating illnesses such as melancholia. Different foods and different seasons could affect the humours, so it was important to do all things in moderation to keep the body in balance. Diagnosis was obviously very difficult and thus best left to the specialist!

The influence of Hippocrates and Galen

Galen's work arrived in Europe via Islamic texts and beliefs. Greek translations were made in Salerno, in Italy (the first medical university dating from around AD900), and rapidly became accepted as university medical texts. Church leaders looked carefully at Galen's works and decided that they fitted with Christian ideas because throughout he referred to 'the Creator'. Doctors believed his ideas were correct and that it was nearly impossible to improve his work. As Salerno was a common stopping-off point en route to the Holy Land, Galen's ideas rapidly spread throughout Europe and became accepted as medical orthodoxy. Even dissection was taught from Galen's book while an assistant would point to the relevant part of the body – and remember Galen was only allowed to dissect animals!

TOPIC SUMMARY

Where did medieval ideas about health come from?

- There is evidence of some effective medical care in Britain before medieval times.
- Medieval people placed great emphasis on the works of Hippocrates and Galen.
- Muslim medical care seemed to be much in advance of that in the West.
- Most medical theories were focused on the idea of balancing the Four Humours.

PROFILES

Hippocrates, 460–370BC

- Born in Kos, Greece, in 460BC.
- The first physician to regard the body as a whole, to be treated as a whole, rather than individual parts.
- Based his thinking around the Four Humours. These were to be kept in balance if a person was to be healthy.
- He believed in the importance of observation.
- Around 60 texts are attributed to Hippocrates, although many may have been written by his followers.
- He believed that diet and rest were hugely important for a patient's recovery.
- Regarded by many as the father of modern medicine.
- Even today, new doctors around the world still take the HIPPOCRATIC OATH.

Galen, AD130–c210

- Born in what is now Turkey, in AD130.
- Studied medicine in Egypt before moving to Rome.
- Took Hippocrates' ideas further.
- He practised the dissection of animals in order to better understand the human body.
- He worked for three years as a doctor in a gladiator school where his knowledge and techniques developed.
- He used the theory of the Four Humours, and emphasised the importance of listening to a patient's pulse.
- His ideas profoundly influenced Western ideas of medicine for a very long time.

PROGRESS CHECK

Usefulness of sources

- 1 How useful is Source 1 for finding out about medieval medicine?

Significance

- 2 Who was more significant in the development of medieval medicine, Hippocrates or Galen?

1.3 Medieval medicine

FOCUS

Medieval people had varying ideas of the causes of illness, and as physicians became more qualified, varying treatments were available. This topic will explore the different factors which decided how and by whom people were treated, and how the process of diagnosis was carried out.

What did medieval people think made them ill?

ACTIVITY

How well-trained were medieval medical practitioners?

As you work through this unit, make a note in a table, like this one, of each type of practitioner you come across, and how they were trained for their job. The first one has been done for you. You will return to your table at the end of this topic.

Medical practitioner	How they were trained
Arab doctor	Reading texts and working in a hospital

During this period people had a wide range of beliefs about the causes of illness.

God

Religion played a huge part in most people's lives so it is not surprising that people thought God had a part to play in the spread of disease. If someone was living a sinful life, then a difficult illness was God's way of punishing them for their sins. If society as a whole was being sinful, or moving away from the true path of faith and the directions of the Pope, then an EPIDEMIC or plague was a just reward, sent by God, to remind people of their duties to the Church.

There was also a belief in the DOCTRINE OF SIGNATURES. God had created illness, but in his kindness he had also created the right herbs or plants with which to treat that illness. All you had to do was identify that plant. Lungwort, for example, was to be used for breathing problems, and eyebright for eye infections. Some plants were said to look like the part of the body they were to be used to treat. Saxifrage, for example, breaks up rocks as it grows so it must be perfect for treating kidney stones; alkanet has viper-shaped seeds so it is perfect to use to treat snake bites.

Bad smells

Some people began to notice the link between disease and bad air, or bad smells. MORTALITY was higher in the towns and cities than in the countryside. People lived closer together, alongside their animals and their filth. Travellers often said you could smell a town long before you could see it. So it is hardly surprising that many people thought disease was spread by bad smells infecting neighbours and friends.

Everyday life

Most people believed illness and early death were inevitable. So many children died before the age of seven that in many ways it seemed quite natural. Also childbirth was a very dangerous time for women, and it was expected that a man would need to remarry to provide his children with a new mother. Warfare and famine were frequent. Everyday life was an uncertain business!

The supernatural

Mystery and magic and the supernatural world were used by some to explain unexpected happenings. Witchcraft was feared and many believed the world was full of demons trying to cause trouble and death. Any sudden diseases or misfortunes could easily be blamed on the supernatural, especially as the Church painted a picture of a life where 'good' fought 'evil'.

The Four Humours

But by far the widest-held belief was that people were ill because their Four Humours were out of balance. Every doctor agreed with Hippocrates and Galen that illness was caused by the loss of equilibrium. Every doctor had a chart showing which illnesses were caused by which Humour that they would use alongside a zodiac chart (see Source 5, page 16) showing the best time to treat illnesses, plan an operation or even pick the herbs needed for medicine.

ACTIVITY

- Which do you think are the best explanations of the causes of illness outlined on this page? Rank them in order along a line like this one:

Best explanation	Worst explanation
<hr/>	
- Repeat the activity, this time showing which explanations you think medieval people would find most convincing. Can you explain any differences?

Who would treat the sick in medieval times?

SEVERE SHORTAGE OF GPs COULD SEE TRADITIONAL FAMILY DOCTOR BECOME A THING OF THE PAST

Maureen Baker, of the Royal College of General Practitioners, said there was a 'severe shortage' of family doctors and more needed to be done to encourage people into the profession. It means the tradition of having a family doctor from cradle to grave could soon be a thing of the past.

(Daily Express, 9 June 2015)

Most people who had the money would go to a barber-surgeon, who would carry out minor operations, set broken bones or pull teeth (see Source 1). To become a barber-surgeon you would need to serve an apprenticeship before becoming qualified. These practitioners were mostly found in towns and cities, although some made a living travelling around the countryside or with visiting fairs.

SOURCE 1

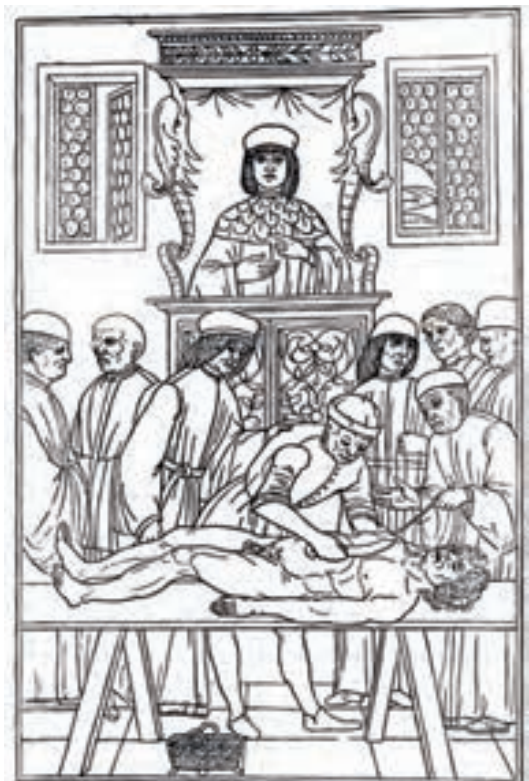
An image of medieval dentistry taken from a fourteenth-century encyclopedia



Ordinary people would almost certainly depend on the apothecary, who would sell medicines as well as herbs and spices from his shop in a town. He had probably served an apprenticeship for seven years with an existing apothecary to learn his trade. He would sell 'simples', a medicine made up of one plant or herb only; or 'compounds', which were a combination of ingredients made up to deal with a specific illness or complaint. One such compound was red rose, ground fine with bamboo juice, for treating smallpox. People might also visit the local 'wise woman'. She would have wisdom and skills handed down by her family that were probably as effective as anyone else's, she was reasonably priced and would usually know the patient already. Many of these women would also act as midwives, looking after women in labour. The 'lady of the house' would often be expected to provide medical care for the family, and, on an estate or farm, for labourers too. So there was medical care available in medieval times.

SOURCE 2

'Lessons in Dissection' by Granger, 1493, in Venice



THINK

- 1 How did medical care differ between:
 - a) rich and poor
 - b) town and country?
- 2 Do you think medieval people were well-served by their medical personnel?
- 3 Would you have felt comfortable going to the doctor in medieval times?

SOURCE 3

Blood-letting in the late thirteenth century



SOURCE 4

A urine chart used by physicians in medieval times



SOURCE 5

A Greek zodiac chart from the fifteenth century



What treatments did medieval practitioners use?

How about this for a medieval headache remedy?

Drink warm camomile tea and then lie down on rosemary and lavender-scented pillows for 15 minutes.

Or this one for aching joints?

Take equal amounts of radish, bishopwort, garlic, wormwood, helenium, cropleek and hollowleek. Pound them up, and boil them in butter with celandine and red nettle. Keep the mixture in a brass pot until it is a dark red colour. Strain it through a cloth and smear on the forehead or aching joints.

Perhaps those apothecaries and wise women did know what they were doing! Some treatments were more fanciful, however. For toothache, which some people thought was caused by tooth worms burrowing into the tooth:

Take a candle of sheep suet, some eringo (sea holly *Eryngium maritimum*) seed being mixed therewith, and burn it as near the tooth as possible, some cold water being held under the candle. The worms (destroying the tooth) will drop into the water, in order to escape from the heat of the candle.

The preferred way to fight illness, and restore the balance of the Four Humours, was by bleeding. This was done either by 'cupping' (see Source 3) or by using leeches. Monastery records show some monks were bled up to eight times a year! Illness was said to be caused by the body creating too much blood so it was obvious that bleeding a patient would restore their vitality. Interestingly, leeches are still used today in some hospitals to suck up blood and aid patient recovery!

Diagnosing illnesses

Doctors had two other indispensable tools for diagnosing sickness and putting it right: urine and the zodiac chart. Urine was a vital diagnostic tool. The physician would look carefully at the colour and compare it to a chart like the one shown in Source 4. He might smell it and, in some circumstances, taste it to help him decide what was wrong with the patient. Again, many patients today still have to submit a urine sample as part of the process of diagnosis.

Finally, no self-respecting physician would treat a patient without his most important tool – a zodiac chart like the one shown in Source 5. Charts like this would tell a physician which parts of the body were linked to which astrological sign, and thus dictate what the physician might do to cure a patient. For example, some things might work for an Aries (see the ram at the bottom of Source 5), but not for a Pisces (see the fish at the bottom of Source 5). The chart might also tell the physician the best time to carry out the treatment, and even when to pick the herbs used in medicines – herbs picked at the wrong time of the Moon's cycle, for example, might do more harm than good! It was a complicated business for physicians to decide what was causing an illness and how it might best be treated.

A case study: John Arderne – the first English surgeon?

John Arderne was born in Newark in 1307. He trained as a surgeon and practised in London. He became famous in his own lifetime for his astonishing success rate. In difficult operations removing growths from inside a patient's anus, he had a survival rate of over 50 per cent, which was quite astonishing for the fourteenth century!

We first discover John working for the Duke of Gaunt in the Hundred Years War. He was probably at the Battle of Crecy in 1346. His work as a surgeon on the battlefield helped him deal with major wounds. It was probably here too that he developed his own pain-killing ointment, made from hemlock, opium and henbane. This helped healing and stopped the need for CAUTERISING deep wounds, which had frequently led to the death of the patient. Being a war surgeon also helped him develop speedy amputation skills!

John went on to write books explaining his methods, which were widely read at the time. His most famous title was *The Practice of Surgery* written in 1350. In his works he advocated doctors having a good bedside manner, dressing soberly and talking to patients calmly and in a considered manner. He also urged doctors to trust their own judgement and experience and not rely on the old texts of Galen and Hippocrates. In fact, both his method of operating on fistulas (swellings inside the body) and his recommended bedside manner are very modern indeed. He charged the rich as much as he possibly could get away with for his services, as they could afford it, but he treated the poor for free.



THINK

- 1 Do you think John Arderne was a typical medieval surgeon?
- 2 How do you think he achieved a 50 per cent survival rate for surgery?

PROGRESS CHECK

Significance

- 1 How significant do you think John Arderne is in the story of medieval surgery?

Now answer this question:

- 2 Do you think that the title of this part of your course, 'Medicine stands still', is a good description of medicine at this time?

TOPIC SUMMARY

Medieval medicine

- People did not really understand the causes of illnesses at this time.
- Many different treatments were available if you could pay for them.
- Astrology was used to predict illnesses and suggest cures.
- Some people, like John Arderne, were beginning to take a more scientific approach to sickness.
- Many people did not have easy access to medical advice or treatment.

Copyright: sample material

1.4 Medical progress

FOCUS

There was *some* progress in medicine at this time, both in diagnosing illness and in treating it. Some people were beginning to question Hippocrates and Galen, and as a number of autopsies took place, knowledge of the human body developed. This topic will assess the true extent of these developments, and the role of the first hospitals which had sprang up across the country.

What was the Church's role in medical progress in medieval times?

In medieval society the Church was central to most people's lives so its attitude to medicine had a profound influence on medical progress and developments. Most importantly, the Church encouraged people to pray for deliverance from illness, for forgiveness of their sins and to prepare for the after-life. (Remember, most surgery was extremely dangerous!) As well as prayer, offerings could buy **INDULGENCES**, and going on a pilgrimage to a holy shrine might bring about a cure. Pilgrims would often leave a miniature copy of the infected body part at the shrine, and hope that prayer and belief would bring about a cure.

SOURCE 1

A fifteenth-century stained-glass window depicting St John of Bridlington



St John of Bridlington

The most famous pilgrimage of course was to the **HOLY LAND**, but in England you could also visit Canterbury, Walsingham, Glastonbury or a host of other sites, like the Priory at Bridlington where St John of Bridlington's grave was a source of miracles – even Henry V went on pilgrimage there following his victory at Agincourt. John had been an Augustinian monk in Bridlington Priory all his life, eventually becoming prior there. He was renowned for his holiness and miracles were attributed to him while he was still alive. He was canonised (made a saint) in 1404, barely 30 years after his death. The site of his burial rapidly became a place of pilgrimage, especially for women in labour and sailors.

Helping progress

It was regarded as a central part of Christian duty to look after the poor and the sick, so the Church played a large part in developing hospitals and over 160 were set up in the twelfth and thirteenth centuries. Some of these were very small, many were attached to monasteries (see page 20) and some refused to take in very sick people or women, but there were at least some places for the sick to be treated.

The Church also set up university schools of medicine throughout Europe where physicians could be trained using the texts of Hippocrates and Galen. In fact, it was often through these university schools and in monasteries that the old texts were hand-copied by monks and thus survived, many of them arriving in the West in Arabic translations from the Islamic world.

Limiting progress

The Church also helped to limit medical progress. It made it very difficult for scholars to dissect human bodies, although there is evidence of autopsies taking place, like the one described in Source 2.

Most studies of dissection were still based on Galen's writings, but his work on dissection was based on working on animals. Therefore the Church's insistence on using Galen and his works widely, limited progress in understanding the workings of the human body. Scientists who tried to insist on scientific method and observation often ran into difficulty. Roger Bacon, a Franciscan monk and lecturer at Oxford University, was arrested around 1277 for spreading anti-Church views after questioning the Church's stance on Galen.

Other factors for progress

War was endemic in medieval times, and led to advances in surgery and the treatment of wounds. Cauterisation of wounds, applying great heat to the edges of the affected areas, was common, and designed to stop bleeding. It was extremely painful and, as often as not, fatal. This led some surgeons to use wine as an ANTISEPTIC to clean wounds, and others, such as John Arderne, to develop pain-relieving ointments to apply to wounds instead (see page 17). Opium began to be used as a painkiller. Draughts of the drug were designed to knock out patients to allow surgery to take place, but sometimes the opium- and hemlock-based liquids were too strong and killed the patient instead!

Army surgeons became very adept at quickly carrying out amputations with saw and knife, again a very painful business without effective anaesthetic. Finally new tools were developed, like the arrow cup, designed to slide into a deep wound, surround an arrow-head and gently remove it from the body without causing any more damage. Manuals helped to spread knowledge, and many would feature diagrams like the wound-man (Source 3), showing the kinds of wounds army surgeons could expect to treat during their career.

Science, too, played its part. Robert Grosseteste, teacher at the University of Oxford and then Bishop of Lincoln, was a leading advocate of scientific enquiry and experiment. His work on optics eventually led to the development of spectacles. Roger Bacon, as we have already seen, was imprisoned for challenging the Church's views on Galen and the importance of scientific method and close observation. People were beginning to question the old texts and the Church's insistence on agreeing with them.

ACTIVITY

- 1 Using the information on pages 18–19, make notes under the following three headings to show how each helped progress in medicine in medieval times:
 - a) Church
 - b) War
 - c) Science
- 2 Which factor do you think helped progress in medicine the most?

SOURCE 2

A description of an autopsy in 1477

In August of 1477, Fiamatta di Donato Adimari gave birth to a daughter. Several weeks later she told her husband about an intense pain around her heart – two hours later she died. She was 25. Her husband, Filippo di Matteo Strozzi, a wealthy businessman, asked several physicians to perform an AUTOPSY. He later wrote: 'I had the body opened and among the others there to see it was Master Lodovico, a prominent Florentine physician, and he later said to me that he had found her uterus full of petrified [hardened] blood, and that this caused her death. And in addition, her liver was in very bad shape, together with her lungs, which had begun to attack her kidneys. So that if she had not died of this illness, she would have fallen into consumption.'

THINK

- 1 Why do you think the Church placed so much emphasis on prayer and pilgrimage as a way to cure illness?
- 2 In your opinion, overall, did the Church help or hinder medical progress in the medieval period?

SOURCE 3

A wound-man, 1517, designed to help army surgeons



How safe were you in hospital?

Eadmer, a monk at Canterbury Cathedral, wrote this in the twelfth century, about Bishop Lanfranc's aim to establish and maintain a hospital:

But I must not conclude my work by omitting what he did for the poor outside the walls of the city of Canterbury. In brief, he constructed a decent and ample house of stone ... for different needs and conveniences. He divided the main building into two, appointing one part for men oppressed by various kinds of infirmities and the other for women in a bad state of health. He also made arrangements for their clothing and daily food, appointing ministers and guardians to take all measures so that nothing should be lacking for them.

But not everyone could be admitted to hospital:

No lepers, no lunatics, no people with a contagious disease, no pregnant women, no sucking infants, no intolerable infants – even if they are poor and infirm, and if they are admitted by mistake, they are to be expelled. And when the other poor and infirm persons have recovered they are to be let out without delay.

(From the rules of the Hospital of St John, in Bridgewater, in 1215)

At least this last point suggested some people were expected to survive their illness and leave the hospital. They were not just envisaged as places to go to die.

So what were hospitals for? St Bartholomew's Hospital in London, set up in 1123, at first specialised in the treatment

of poor, pregnant women. St Mary of Bethlehem, established in 1247, specialised in the treatment of 'poor and silly persons'. Many towns had leper houses outside their walls, or 'hospitality' places for travellers. Many small hospitals were, in effect, ALMSHOUSES set up to provide a home for the old and those unable to work, who might otherwise have had to live on the streets and beg for a living: not at all like a hospital today. Perhaps it is fair to say that early hospitals were in some ways the safe lodging houses of the medieval period. Many were funded by the Church, or by rich people leaving endowments to pay for a certain number of beds. Basically, they were care homes, where those in need could receive warmth, food and rest until they felt better.

Care within a hospital

The first thing that happened to you when you rang the doorbell in a medieval hospital was that you went to chapel. The next stop was the bath, and the nuns or sisters took your clothes, boiled them and baked them in the oven. You then went into clean sheets overnight. Very few hospitals employed either physicians or surgeons. Most care was carried out by nuns or elderly women – too old to tempt men into the ways of the flesh! The main treatment, however, was prayer. A priest would say mass every day, and the occupants would be expected to confess their sins and prepare to meet their God. Prayer and contemplation, in line with the Church's views on the cause of illness, were expected to bring about recovery. Most sisters, or monks if the hospital was attached to a monastery, would have plenty of knowledge of herbal remedies. In fact, excavations at Soutra, on the main road from Scotland to England, found an early Scottish establishment set

up by Augustinian monks to be a hospital rather than a place of religion. It is the largest hospital discovered to date, and shows clear evidence of the use of quite sophisticated herbal remedies. Evidence found at the hospital site suggests the medieval Augustine monks knew how to amputate limbs, fashion surgical instruments, induce birth, stop scurvy and even create hangover cures. There was even evidence of them growing non-native herbs and plants to use in medical recipes.

SOURCE 4

Nurses tending to the sick, on a ward in the Hotel du Dieu, Paris



St Giles Hospital

St Giles Hospital in Norwich is a good example of a medieval hospital, set up by Bishop Walter de Suffield in 1249, and still in use today as a care home. It was named after St Giles, who was the patron saint of lepers, cripples and nursing mothers. It was established to care for the sick, but also for the remission of the bishop's sins so that when he died he would spend less time in PURGATORY and get into Heaven quicker! A priest was to say a prayer for his soul every day, and to make the patients pray for him too. The bishop set up the hospital on about ten acres of land in Norwich and funded it with the income from several churches around Norwich. Other local people – rich and not so rich – left money and land to the hospital to cover its running costs. There were strict rules as to who could and could not be admitted, and how they were to be looked after.

THINK

- 1 What was the main role of the first hospitals?
- 2 What were the motives of those setting up hospitals?
- 3 To what extent did hospitals reflect the Church's views on illness, medicine and health?

SOURCE 5

The grounds of St Giles Hospital in the early nineteenth century and some of the rules in force there



ACTIVITY

How well-trained were medieval medical practitioners?

Look back at the table that you started on page 14. You should now be in a position to answer this question about the training of medieval medical practitioners.

- 1 Use your table to draw up two lists: one giving examples of how well-trained people were; the other suggesting ways they were not well-trained.
- 2 What were the most important factors in limiting effective training?

TOPIC SUMMARY

Medical progress

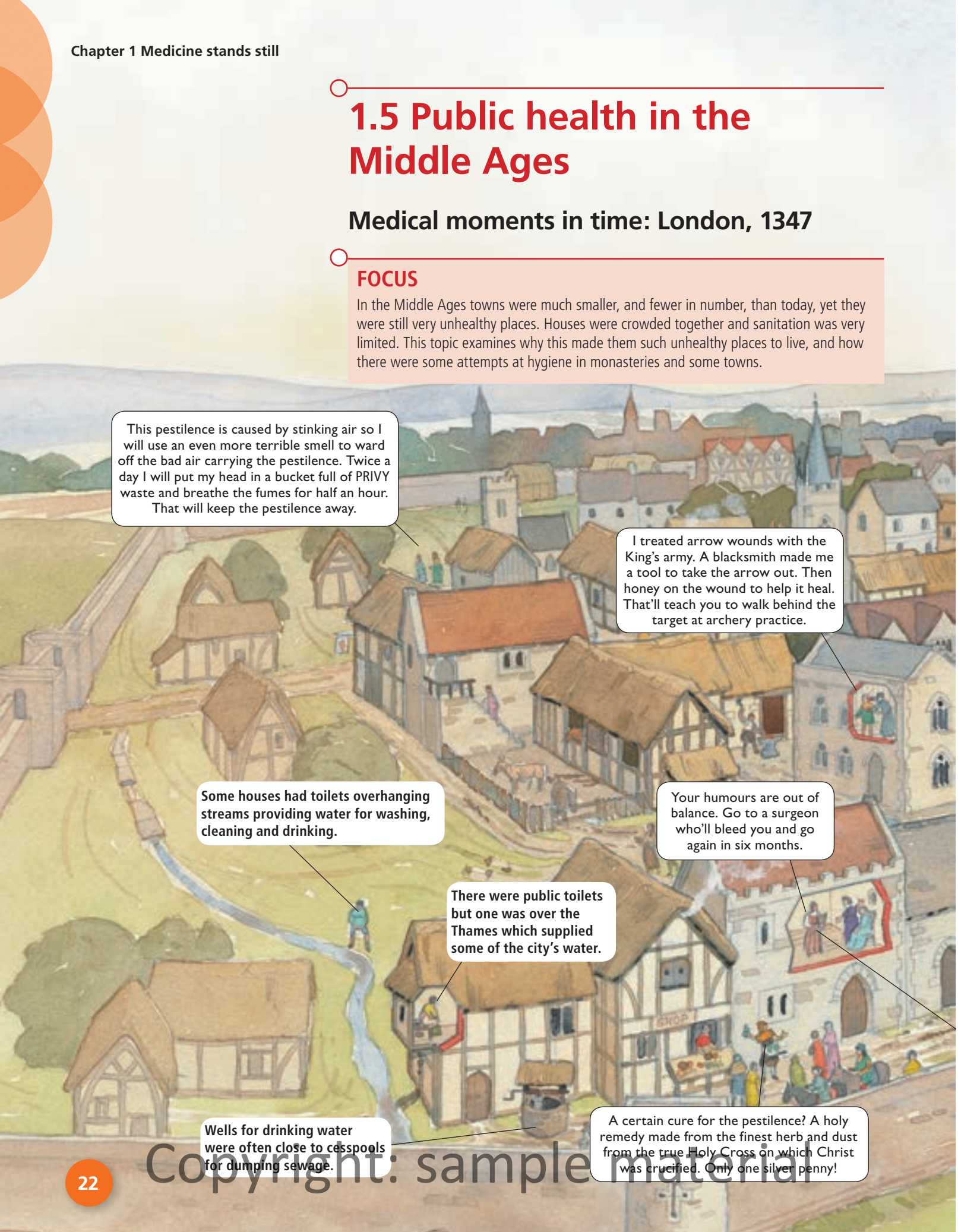
- There was some progress in looking after sick people at this time.
- The Church believed prayer and pilgrimage were the best cure for illness.
- The Church played an important part in providing hospitals and monasteries to look after the old, the infirm and the sick.
- The establishment of the first hospitals saw the beginnings of treating people in specific settings.
- Herbal treatments still remained the usual form of medicine.
- The Church resisted some progression in medicine, such as the practice of autopsies.
- Texts, many arriving via the Arabic world, helped spread good practice among those prepared to listen to new ideas.

1.5 Public health in the Middle Ages

Medical moments in time: London, 1347

FOCUS

In the Middle Ages towns were much smaller, and fewer in number, than today, yet they were still very unhealthy places. Houses were crowded together and sanitation was very limited. This topic examines why this made them such unhealthy places to live, and how there were some attempts at hygiene in monasteries and some towns.



This pestilence is caused by stinking air so I will use an even more terrible smell to ward off the bad air carrying the pestilence. Twice a day I will put my head in a bucket full of PRIVY waste and breathe the fumes for half an hour. That will keep the pestilence away.

I treated arrow wounds with the King's army. A blacksmith made me a tool to take the arrow out. Then honey on the wound to help it heal. That'll teach you to walk behind the target at archery practice.

Some houses had toilets overhanging streams providing water for washing, cleaning and drinking.

Your humours are out of balance. Go to a surgeon who'll bleed you and go again in six months.

There were public toilets but one was over the Thames which supplied some of the city's water.

Wells for drinking water were often close to cesspools for dumping sewage.

A certain cure for the pestilence? A holy remedy made from the finest herb and dust from the true Holy Cross on which Christ was crucified. Only one silver penny!

ACTIVITY

Look carefully at this picture of London in 1347. Some of the things making life unhealthy are highlighted with a text box. Others are not. Make a list of all the unhealthy factors you can find.

Life in a town or city was fraught with danger. You might get killed by a cut-purse (pickpocket), trapped in a fire or run over by a horse and cart. Accidents while carrying out normal everyday chores were common, as the case of Johanna Appulton shows. In August 1389 she was drawing water when she fell into the well. The incident was witnessed by a servant who ran to her aid, and while helping her fell in as well. This was overheard by a third person who went to their aid – he too fell in, and all three subsequently drowned.

A terrible pestilence is killing everyone in France. I've heard it's caused by the planets. What can we do?

Get this filth cleaned up or I'll fine you two shillings.

You ought to employ more rakers to clean the streets.

My sister has a good remedy – onion, garlic, bull's gall, wine. I'll run and get some.

Her eye's sore.

Pray to God for forgiveness. God sends Plague as punishment for our sins.

Physicians trained by reading books by Hippocrates, Galen and Arab doctors such as Avicenna and Rhazes.

Copyright: sample material

Why was living in towns and cities so unhealthy?

Towns were unhealthy because so many people lived so close together. There were few regulations about building or waste disposal. Clean water was in short supply, and water was often drawn from rivers and streams that were contaminated with waste. Butchers brought live animals into the town or city to slaughter them, leaving the problem of how to get rid of the waste. Industries like tanning (creating leather) were carried on nearby, creating smells and waste. There was no 'zoning' in towns so industry and houses were mixed together higgledy-piggledy. There were no dustbins or rubbish collectors to remove waste so it just accumulated in the streets until the rain washed it away. CESSPITS were often built next to wells, allowing the one to contaminate the other. Cesspits were also emptied infrequently as you had to pay people to remove the waste.

Everywhere there were animals: horses for transport, creating tons of dung every week; or domestic pigs roaming around eating scraps before being slaughtered. There were no sewers, so household waste was chucked out into the street and left to rot. If you were unlucky the overnight piss-pot might be chucked out of an upstairs window as you were passing below. Keeping food fresh was difficult, so you had to shop for food every day. Shopkeepers would try to sell food that was going off rather than throw it away. Water for washing, either clothes or people, was hard to come by, so people weren't overly clean. Water for drinking was also rare, hence most people would drink 'small beer' rather than risk the water. Conditions such as sewage in the streets in the countryside or small villages were not really a problem, but they became deadly in towns. Disease spread quickly. No wonder medical people thought disease was spread by bad smells!

SOURCE 1

A couple bathing, from an illuminated manuscript



How did monasteries help?

Monasteries knew of the dangers of dirt and filth. Most monasteries carefully extracted water for drinking, washing, cooking and brewing upstream of the privies, and then used the waste water to flush away the waste and clean the toilets. Every monastery had a PHYSIC GARDEN where plants used in the treatment of patients would be grown. Herbs, such as peony, ginger, cinnamon and balsam, were expected to be always available to comfort the sick, and money was spent on other luxury goods such as aniseed, wine, cassis, cloves, saxifrage, liquorice, olive oil and vinegar. Monks were probably the only skilled medical personnel available to most people. Most hospitals at the time were attached to monasteries or run by monks (see page 20).

Bath-houses

Archaeological evidence also shows that many towns in the Middle Ages had bath-houses where people could pay to have a bath (see Source 1). We also know that people used combs and tweezers, toothpicks and mouthwashes. Perhaps many medieval people were, despite all the difficulties, not quite as dirty or as smelly as some textbooks suggest!

A case study of Coventry

Were all medieval towns dirty and unhealthy places to live?

Surprisingly, the answer to this question is 'no'. Dolly Jørgensen, in a recent academic paper 'What to do with waste', argues convincingly that Coventry council made a concerted and consistent effort to clean up the city.

In 1421 the Mayor's Proclamation required that every man clean the street in front of his house every Saturday or pay a twelve penny fine, with no exceptions being made. Waste collection services are recorded in 1420, when the council gave William Oteley the right to collect one penny from every resident and shop, on a quarterly basis, for his weekly street cleansing and waste removal services. The waste was to be sold to nearby farmers.

The council also specified designated waste disposal locations. DUNGHILLS and waste pits naturally sprang up around the perimeter of the town. The council authorised

the use of specific sites for particular types of waste. By 1427, five designated waste-disposal locations are mentioned for Coventry (Dolly Jørgensen only specifically lists four):

- a dunghill outside of the city limit beyond Greyfriar Gate
- a pit in the Little Park Street Gate
- a muckhill near the cross situated beyond New Gate, at Derne Gate
- a pit at Poodycroft.

In total, Coventry's council banned waste disposal in the River Sherbourne nine times between 1421 and 1475. There are, of course, two ways of looking at this: that the council took action, and it was widely ignored; or, perhaps, the actions worked and when one or two individuals went back to the old ways then residents complained to the council who then took action.



Some towns, such as Shrewsbury shown here, made efforts to become clean and orderly

In 1421 all latrines over the Red Ditch, a local stream, were ordered to be removed, to allow free flowing of the water, and to prevent flooding. Attempts were made to stop local stables and butchers throwing waste into the River Sherbourne, again to prevent flooding. All this evidence shows active intervention by the mayor and Corporation of Coventry when faced with complaints by residents about the state of the town.

THINK

- 1 Does Dolly Jørgensen's paper on Coventry (she uses York as an example, too) prove that towns were cleaner than we think?
- 2 What other actions could Coventry have taken to clean itself up?

TOPIC SUMMARY

Public health in the Middle Ages

- You were more likely to die in a town than in the countryside.
- Industry and livestock alongside houses led to dirt and disease.
- Water supply and rubbish removal caused many problems.
- Most towns only took action sporadically, or when disaster threatened.
- Some people and some towns tried to keep themselves clean as best they could.

PROGRESS CHECK

Significance

- 1 How significant is the case of Coventry in understanding how clean British towns were at this time?

Usefulness of sources

- 2 How useful is Source 1 as evidence of how clean people were in the Middle Ages?

1.6 Pulling it all together: Medieval Britain



A case study of the Black Death

In 1348 a ship docked at Melcombe in Dorset, bringing with it the Black Death. People must have known it was coming as it had spread INEXORABLY across the known world from Asia. Its impact was devastating. In some places whole villages were wiped out. Historians disagree about just how many people were killed by the epidemic of 1348–49, but estimates vary from 50 to 66 per cent.

THINK

- 1 Before reading people's thoughts on the causes of the Black Death here, look back to Topic 1.2 (pages 12–13). Which different reasons do *you* think people in the Middle Ages would have given for the Black Death?
- 2 What different treatments do you think they would have suggested?
- 3 Which of the suggested causes of the Black Death do you find surprising? Why?
- 4 Which of these causes do you think would help people to treat those infected by the Black Death? Which would not? Does this help to explain why the disease spread so quickly and killed so many?

What did people think caused the Black Death?

The truth is that people at the time didn't really know much at all about the causes of ill-health, but they had plenty of theories!



Bad smells, from an overflowing privy or rotting food, corrupt the air.



God is angry with us – not enough people have been going to church or behaving properly.



People have been wearing fancy new clothes, and showing off their wealth. This has made God very angry and therefore he has sent a plague, like he did in Biblical times, to teach us to behave better.

There was a huge earthquake in China in 1347, and this is where the Black Death started in 1347.



The Jews have poisoned the wells and springs.



How did people try to treat the Black Death and stop it spreading?

There were many treatments and preventions proposed, some of which were sold by those quick to make a profit.

To avoid infection:

1. March through the streets praying to God to spare us from the Plague: by order of the King.
2. Protect yourself by making candles as tall as yourself, and burning them in church.
3. Avoid eating too much.
4. Avoid taking a bath as opening the pores of the skin will let in the disease.
5. Avoid having sex as too much excitement can weaken you and make you more likely to catch the Plague.
6. Avoid all Plague victims.
7. Clean all filth from the streets: by order of the King.
8. Carry a posy of sweet-smelling herbs and spices to keep away the evil smells.
9. Attend church and pray for your soul every day to keep you healthy.
10. Bathe in urine three times a day, or drink it once a day to protect you from harm.

For those who are infected:

1. Pop open the buboes (the swellings in the armpits) to release the disease.
2. Attach a live chicken (or pigeon) to the buboes to drive away the disease.
3. Drink a mixture of vinegar and mercury.
4. Carry out flagellation (walking through the streets praying to God for forgiveness and whipping yourself).
5. Bleeding will release the evils inside the body.

ACTIVITY

- 1 Read the notices above. Rank these 'preventions' for the Black Death, and then rank the 'cures':
 - a) in the order that *you* think might be effective
 - b) in the order that *people at the time* might think effective.
- 2 Can you explain any differences between your views and the views of people at the time?
- 3 Why do you think there were so many different types of treatment for the Black Death?
- 4 Are you surprised how many people died from the Black Death?
- 5 What does the response to the Black Death tell us about how medieval people understood the causes of disease, and how to treat diseases effectively?

Black Death backtrack: Don't blame the rats, the plague was 'spread by PEOPLE'

(Daily Mail, 18 August 2011)

It is important to remember that historians today still debate the exact causes of the Black Death. The prevailing argument is that it was bubonic plague spread by rats. However, others suggest that it was spread by close contact between humans. Archaeologists just haven't found lots of rat bones, suggesting the Plague wasn't spread by rats, and the fact that mortality rose in winter suggests the Black Death may have been something other than bubonic plague all together. If *we* find it difficult to understand what caused the disease, what chance did people in the Middle Ages have of understanding the cause, and then effectively curing, such a rampant disease?

SOURCE 1

Monks with the Plague being blessed by a priest



Were people healthier in 1450?

FOCUS TASK

What happened to you if you fell ill in medieval Britain?

Now it's time to review your work on healthcare in medieval Britain. In the left-hand column of the table below you will find a list of ailments common in medieval times. You have to decide how those ailments would be treated, by whom and what the likely outcomes might be. Look back to the description of this task on pages 7–8 if you need a reminder.

Diseases	Rich or poor/ Town or country/ Old or young	Practitioners	Likely treatment	Likely outcome
Accident		Physician		
Arrow wound	Rich			
Dysentery		Surgeon		
Fall from tree				
Smallpox	Poor	Barber-surgeon		
Measles				
Childbirth		Wise woman		
Cold	Old			
Sweaty		Midwife		
Tired	Young			
Plague		Monk		
Headache				
Swollen joints	Live in a town	Female head of the household		
Sword or knife wound				
Leprosy		Potion seller		
St Anthony's disease	Live in the countryside			
Influenza		Tooth-puller		
Indigestion				
Any other diseases you have come across	Live in a village	Apothecary		

- 1 Did everyone get *the same* medical treatment?
- 2 Did anyone get *effective* medical treatment?
- 3 Was medical treatment, in your opinion, any better in 1450 than it had been in 1000?

Which factors inhibited or encouraged medical change in medieval times?

As we have seen, for example with the work of John Arderne (page 17), some people were able to make improvements to the way they treated the sick during medieval times, but many were not.

FOCUS TASK

Medieval Britain factor card

Throughout your course you will be thinking about how the following factors affected the story of Health and the People. Which of these factors were significant during medieval times? We think that in medieval times the Church was of great significance so we have given it a '5'. Do you agree?

MEDIEVAL BRITAIN		
Factor	Relative importance of the factor	Positive or negative influence
War		
Superstition and religion	5	+ and -
Chance		
Government		
Communication		
Science and technology		
The economy		
Ideas		
Role of the individual		

- 1 Decide which factors you think are most important in explaining any changes in health that took place during medieval times. On your own copy of the factor card, give each factor a number value, where 1 is least important, and 5 most important. Remember to decide whether they are important for creating change, or for inhibiting change. In some cases, it might be both. You should also be able to explain *why* some factors were more important than others.
- 2 Discuss your findings in groups. Do other people in your group agree with your ideas?

KEY WORDS

Make sure you know what these words mean, and are able to use them confidently in your own writing. See the Glossary on pages 111–112 for definitions.

- Autopsy
- Cauterise
- Doctrine of signatures
- Hippocratic Oath
- Mortality
- Physic garden