PAGE A

1.2 Becoming a master of chronology

Lots of things you learned in Key Stage 3 history lessons are going to be exceedingly useful in your GCSE course. One example is your knowledge of chronology – the names and sequence of the different historical periods. As you are going to study such a long span of time you will have to talk and write confidently about a variety of historical periods. We will say more about this on pages 4–5 but, to begin with, can you answer the questions below?

IDENTIFYING HISTORICAL PERIODS

1. Place the four historical periods below in chronological order.

The Industrial Revolution
The Middle Ages
The twentieth century
The Renaissance

2. Which picture on this page comes from each chronological period? Give one reason for each choice.
3. Roughly which dates does each period cover?
4. a) What seems to be happening in each picture?
   b) What can you work out from each picture about medicine at that time?

   For example they could tell you about:
   - ideas about what causes disease and illness
   - methods of preventing disease and illness
   - methods of treating the sick
   - who cared for the sick.

A



B



C



D



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PAGE B

CHRONOLOGY

1. Why is it important to identify the things you don't understand and make them visible?
2. Is 1784 in the seventeenth or eighteenth century and can you explain why?
3. The tabards below are in the wrong sequence. What is the correct chronological sequence?

The Black Death | The Renaissance | The Industrial Revolution

The Norman Conquest | The First World War | The English Civil War

4. Look at the two boxes below – Period A and Period B.
   a) One name in each box is the odd one out. Explain which is the odd one out in each box – and why.
   b) The three remaining names in each box are given to roughly the same historical period – but they mean slightly different things. Explain the differences between them. You can use dates to help you and check the timeline below if it helps.

Period A

Tudors and Stuarts | The Renaissance | The age of the Black Death | Early Modern period

Period B

The Victorian age | The twentieth century | The Industrial Revolution | The nineteenth century



11th | 12th | 13th | 14th | 15th | 16th | 17th | 18th | 19th | 20th

1100–99 | 1400–99 | 1700–99

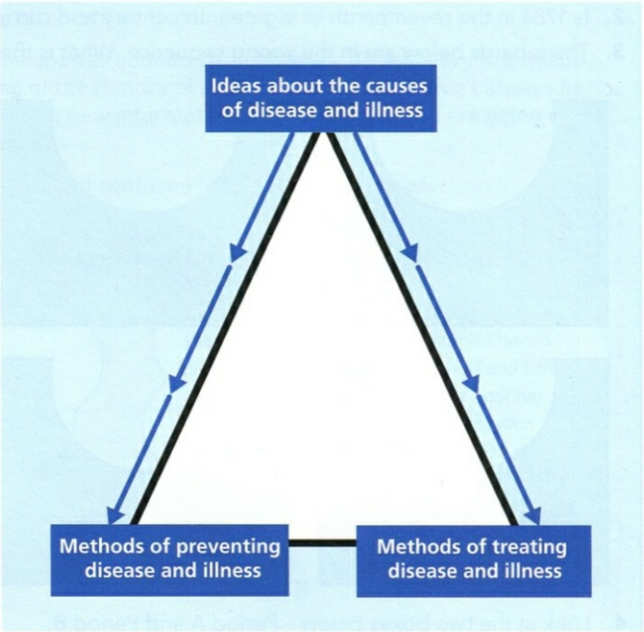
PAGE B

PAGE C

1.3 The Big Story of Medicine

On these two pages you can read the whole History of Medicine since 1250! Starting the book with this Big Story helps solve another problem some students have. They know the details of individual events but they cannot 'see' the whole story – the overall pattern of changes and continuities in the History of Medicine. This is a serious problem when you need to write about long-term changes and continuities in your exam.

The four cards outline this Big Story. Each card has the same sub-headings – and these sub-headings are similar to those in the triangle. **This triangle is hugely important** because it shows the link between what people thought caused disease and illness and how they tried to treat and prevent them. Ideas about cause are at the top of the triangle because they are the most important part of medical history. Those ideas dictate the methods people used to treat and prevent sickness. **Make sure you understand that last sentence before moving on – it's crucial!**



TELLING THE BIG STORY OF MEDICINE

1. Read the four cards to get a first impression of the overall story.
2. Explain why the symbol on each card is important.
3. Use a new sheet of paper for **each** of the four periods. Note down the major features of medicine in each period under these three headings:
   - Understanding of the causes of disease and illness
   - Methods of treating disease and illness
   - Methods of preventing disease and illness
4. Across the top of each page write down two or three short phrases that sum up medicine in that period. Use at least one of the following words in your phrases for each period:

   change continuity turning point progress
5. **This is the core activity on this page.** You have up to two minutes to tell the outline story of medicine. Work in a group of three to plan and tell your story.
6. After you have told your story – write it down. This is important to help it stick in your brain. Think about how to make it memorable by:
   - using headings
   - using colours to identify changes and continuities
   - adding drawings.

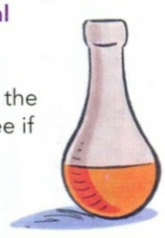
MEDICINE IN MEDIEVAL ENGLAND C.1250–C.1500

Ideas about the causes of disease and illness

If you were sick, you might have thought God had sent the illness to punish you for your sins or that you had breathed in bad air. Specialist doctors called **physicians** treated the rich. They would blame your sickness on the **four Humours** (liquids) in your body being out of balance. This Theory of the Four Humours had been developed by Hippocrates and Galen, who were doctors in Ancient Greece, and people still believed their ideas many centuries after they died.

Methods of prevention and treatment

You could pray to God, asking him to forgive you and make you well. You could also take **herbal remedies** (made from plants) which had helped friends or relatives with the same illness. If you saw a physician he checked the colour, smell and taste of your urine to see if your Humours were out of balance. Then he balanced your Humours by **bleeding** (taking blood from your body) or making you vomit. He might also suggest exercise and a different diet.



Some **remedies** helped people recover but nothing stopped the Black Death, a **plague** that arrived in 1348. It killed nearly half the population. People worked hard to keep streets and water supplies clean, but could not stop plague spreading.

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PAGE D

THE MEDICAL RENAISSANCE C.1500–C.1700

Ideas about the causes of disease and illness

When you were sick you believed that God or bad air was the cause or that your Humours were out of balance.

Methods of prevention and treatment



Prayer and herbal remedies remained common treatments. Physicians still followed the ideas of Hippocrates and Galen, so bleeding the sick to balance their Humours was a common remedy. **Barber-surgeons** carried out simple operations on the outside of the body but internal surgery was impossible without effective **anaesthetics**.

There were new discoveries. Andreas Vesalius improved knowledge of **anatomy** (the structure of the body) by **dissecting** dead bodies. William Harvey discovered that the blood circulates round the body. Knowledge of these discoveries spread quickly because books were now printed instead of written by hand.

These discoveries built up accurate medical knowledge but they did not cure anyone of their illnesses! In 1665 there was a terrible outbreak of plague in London but, just as in 1348, no one could stop it. They cleaned the streets, cleansed the air and **quarantined** the sick but still they died.

MEDICINE C.1700–C.1900

Ideas about the causes of disease and illness

In 1861 Louis Pasteur published his **germ theory** which said that **bacteria** (**germs**) cause diseases. He carried out experiments to prove his theory was correct. Some people still believed that bad air caused disease because they spread rapidly in the dirty, smelly industrial towns.

Methods of prevention and treatment

There were breakthroughs before Pasteur's germ theory. In 1798 Edward Jenner used **vaccination** to prevent people catching **smallpox** which killed thousands every year. However, this 'one-off' discovery did not lead to others.

Pasteur's theory did lead to other discoveries such as vaccines to prevent killer diseases. Germ theory also led to the development of **antiseptics** to prevent **infection** during surgery and helped persuade governments to pass laws to provide sewers and clean water.

Not everything changed. People still used herbal remedies, some of which did help the sick. People still had to pay to see a doctor and nearly one in five babies died before their first birthday. However, life expectancy was beginning to rise. By 1900 people on average had a life expectancy nearer to 50 than 40.

MEDICINE IN MODERN BRITAIN C.1900 TO THE PRESENT

Ideas about the causes of disease and illness

In the 1950s scientists discovered the existence of **DNA**, the 'building blocks' of the human body. This led to much more research which identified the individual **genes** that cause some illnesses.



DNA

Methods of prevention and treatment

Developments in science and technology greatly improved surgery, for example by identifying blood groups which made blood **transfusions** effective. The discovery and development of chemical drugs and then **antibiotics** in the 1940s have saved millions of lives. In 1942 the Beveridge Report created the plan for the National Health Service (NHS), which began in 1948. For the first time the NHS provided everyone with free treatment from a doctor, so people were more likely to get help before an illness became serious.

More recently, discoveries about DNA and genes have led to the possibility of preventing diseases which people are born with. This may turn out to be the biggest medical breakthrough of all. The result of these developments is that people born today will, on average, live at least twice as long as people born in 1800.



This is a simple outline. It is not the complete story. You will learn more important details later in the book.

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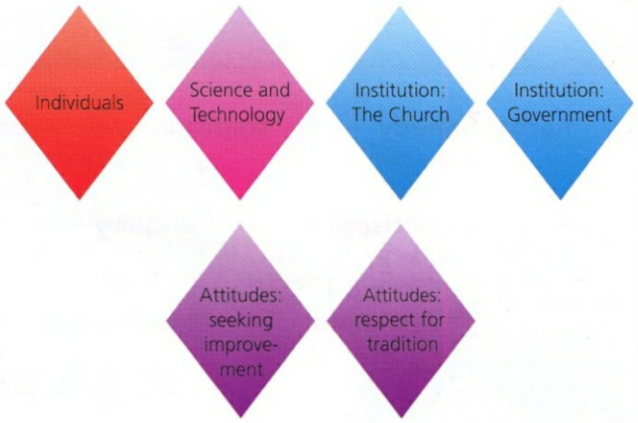
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THINKING ABOUT FACTORS

1. It's time to make good use of your Key Stage 3 history knowledge again.
   a) Work with a partner and choose two of the factors on the right.
   b) For each factor, decide when you think it had most effect on medicine.

   Choose from the four periods identified on pages 6–7:
   - the Middle Ages c.1250–c.1500
   - the Medical Renaissance c.1500–c.1700
   - the eighteenth and nineteenth centuries c.1700–c.1900
   - c.1900 to the present.

   A good way to do this is as follows:
   - Brainstorm what you know about each period (not just the medical history). For example, who governed the country? Was there a great deal of change?
   - Make sure you are clear about the pattern of medical development in each period (see pages 6–7), especially whether each period saw little or lots of change.
   - Now suggest when each of your factors probably had the most impact and whether they helped medicine change or prevented medicine changing.
   - Finally explain why you have chosen that period.



2. Look at the three key moments in medical history below. Which factors are influencing the people or events described in each one? (Don't worry if you're not certain – you will find out exactly why each one took place later in the course.)

1. 1628 – William Harvey's great discovery

In the 1620s William Harvey carried out experiments to prove that blood circulates around the body. However, it was 50 years or more before teachers at universities began to teach their students about Harvey's discovery. Most doctors believed that Harvey's idea must be wrong because he was contradicting the work of Galen, the great Roman doctor. Doctors believed that Galen had discovered everything important about medicine and had written it all in his books. They still believed Galen was right and Harvey must be wrong.

2. 1875 – The Public Health Act

In 1875 the government passed a new law, the Public Health Act, which said that it was compulsory for local councils to improve sewers and drainage and provide clean water supplies. In 1848 an earlier Act said councils could improve these things but did not force them to do so. Then, in 1861, Pasteur published his germ theory, proving that bacteria in dirt and water caused diseases. Then, in 1867, a Reform Act gave many working men (the people who lived in the dirtiest conditions) the vote for the first time. These new voters were most likely to vote for the politicians who would do most to improve their living conditions.

3. 1928 – The discovery of penicillin

In 1928 a scientist called Alexander Fleming noticed that the mould in a dish in his laboratory was killing bacteria in the dish. The mould was **penicillin**. Fleming wrote articles about penicillin but nobody developed the idea. It was only during the Second World War that others scientists followed up Fleming's work and began to give penicillin to dangerously ill patients. When the American and British governments realised that it could cure soldiers with infected wounds they invested huge amounts of money into mass-producing penicillin, the first antibiotic medicine.

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PAGE F

3 The Medical Renaissance in England, c.1500–c.1700

In 1700 people were no healthier and did not live longer than in the Middle Ages. This suggests that the story of medicine between 1500 and 1700 is again about continuity. Yet, as you read on page 7, Vesalius and Harvey made important discoveries in this period. So is the story really about continuity or is it about progress? We begin at the death-bed of King Charles II as his doctors battle to save his life.

3.1 Introducing Renaissance Medicine

FIGHTING TO SAVE KING CHARLES

On 2 February 1685 King Charles II was taken ill. He could not speak and became unconscious. The royal doctors clustered round, trying to save his life. The details of the treatment were later written down by the chief **physician**, Sir Charles Scarborough.

For each decision below, choose the option or options you think the royal doctors used.

Decision 1

Will you:

a) open a vein in the king's arm to **bleed** 16 ounces of blood?
b) call in Mistress Holder who successfully treated the king's poisoned hand five years ago. It is said she 'has a strange wisdom in the curing of wounds'?
c) do nothing and wait to see if the king recovers?

Decision 2

After an hour the king has not improved. Will you:

a) bleed the king again?
b) give more time for the first bleeding to work?
c) purge the king by giving him pills that will empty his bowels?

Decision 3

There is still no improvement. Will you:

a) give the king more pills to purge him some more?
b) place pigeons against the soles of the king's feet?
c) shave the king's head and put burning tongs on his scalp to blister the skin?

Decision 4

February 4: The king seemed better, but in the afternoon has another attack. Will you:

a) continue bleeding the king?
b) continue purging the king?
c) prescribe this medicine recommended by a colleague: spirit of human skull, 40 drops, taken in an ounce and a half of cordial julep?

Decision 5

February 6: The king's strength is fading rapidly. Should you use this **remedy**?

Every other hour take two scruples (two and a half grams) of bezoar stone, a green stone found in the stomach of Persian goats, known as a famous remedy.

TREATING CHARLES II – EVIDENCE OF MEDICAL CHANGE?

Charles II died, exhausted, later that day.

1. Now you have made your decisions above, look on page 164 at the decisions made by Charles II's doctors and add up your score. The more points you score, the more you understand about the work of doctors in the 1680s.
2. What does the treatment of Charles II suggest about how much medicine had progressed in the 200 years since the Middle Ages?



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King Charles II was 54 years old when he died in 1685.

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