**Section 1: Medicine Through Time**

**Theme 1: Disease and infection**

**1.1 Medicine in the ancient world, c.10,000BC–c.AD500**

**Exam practice (page 13)**

**1 What does Source A suggest about Ancient Greek medicine? (4 marks)**

Source A shows Hippocrates examining a patient and suggests that Ancient Greek medicine was based on observation and careful examination. This scientific approach led to Hippocrates being called ‘The Father of Modern Medicine’ and represented a break with the past as Hippocrates was certain that illness had natural rather than supernatural causes.

**Exam practice (page 21)**

**2a Choose one of the important theories in the history of medicine below:**

* + **the theory of the four humours**
  + **germ theory**

**What was the theory? *(4 marks)***

The Greeks created and developed a new idea about the cause of disease, known as ‘the theory of the four humours’. They believed that the body was made up of four humours, which were yellow bile, black bile, blood and phlegm. They represented the four elements and in people were influenced by the seasons. To be healthy, the humours had to be in balance but if a person had too much, or too little, of any one humour, they would become ill. When a patient was ill they went to a doctor who would try to discover and fix the problem by rebalancing the four humours. For example, if he thought you had too much blood he might bleed you, or too much black bile he would prescribe a laxative. Later on doctors used the theory of opposites, which said that if a disease was caused by cold, its treatment should involve heat. The theory of the four humours was, of course, wrong. However, many good things did come from it as it was one of the first attempts at a scientific explanation for illness.

**2b Which of these theories contributed more to the development of medicine? Explain your answer. *(8 marks)***

It is not known exactly when the theory of the four humours was first thought up, or by whom. We do know, however, that a doctor named Hippocrates developed it further. He was the first man to record treatments and observations in books, and therefore the theory was passed down through generations. As people heard this theory, and began to believe that it might be true, they became less certain that all illnesses were caused by supernatural forces. This probably made other doctors want to do further research at the time.

Unfortunately, the idea wasn’t *completely* for the best because some of the treatments used in this theory may have been dangerous, and may have killed people. This theory dominated medicine for around 2000 years partly because, when the theory gained the backing of the Roman Catholic Church, it became the orthodox approach to medicine so it was a dangerous heresy to challenge its truth. Research into other ideas may have stopped, or considerably slowed down, so it held back progress in finding cures and developing scientific medicine. However, although it did play an important part in the future development of medicine as the theory focused attention away from supernatural, spiritually based ideas about the cause of disease and treatments, I do not think the theory of the four humours was the most important contribution that the Greeks made to the history of medicine. There are other aspects such as the Hippocratic Oath or clinical observation.

Germ theory was proved by Louis Pasteur who published his findings in 1861. He showed that germs were the cause of disease in a scientific way. He used swan-necked flasks to show that germs in the air caused liquids to go bad and then went on to show that germs caused disease in animals. This clearly disproved the previously held belief in spontaneous generation as the cause of disease and decay. In this theory, the germs that could be seen under microscopes when something went bad or rotted were the result, and not the cause, of disease. Pasteur showed this was wrong. The discovery of germ theory also started the science of bacteriology and set scientists looking for the specific germs responsible for so many killer diseases. One such scientist was Pasteur’s rival, Robert Koch. It was Koch who went on to develop the tools of the germ hunters as well as finding the germ for tuberculosis, a disease that condemned thousands to a slow death.

The implications of germ theory in the 1860s were profound and affected all areas of medicine. In the field of surgery Joseph Lister realised why hospital infections happened in otherwise successful surgery and as a result took measures to make operations safer through the use of antiseptics. In the field of public health, when governments realised that germs caused disease and illness was not due to miasma or bad air, the prevention of disease by providing effective public health facilities was given a big boost. Germ theory explained so many things such as why Jenner’s vaccination worked and why John Snow was right about cholera.

In the beginning the theory of the four humours was a great leap forward to a more rational and natural explanation of disease, but the longer it was believed, the more it became an unchallengeable orthodoxy that held back progress and a more scientific approach to medicine. On the other hand germ theory was the most important development in the history of medicine. It explained so much about disease and opened up the way for many cures. We have built modern medicine on the foundations laid by germ theory.

**Exam practice (page 21)**

**3b. Which of these two individuals contributed more to the treatment of disease and infection?**

* **Louis Pasteur**
* **Robert Koch**

**Explain your answer. Try to refer to both individuals in your answer. *(8 marks)***

By the nineteenth century medical knowledge had progressed to the point where doctors and scientists knew about germs but were unsure of the relationship between germs and disease. Many scientists believed in the theory of spontaneous generation, which stated that germs were the result of disease rather than the cause.

Whilst conducting experiments for the French wine industry in 1857­–61 Louis Pasteur, a research chemist, managed to prove that airborne germs were causing the wine to sour. Although Pasteur’s findings were not universally accepted this was a breakthrough and Pasteur went on to demonstrate that germs were responsible for certain animal diseases, such as those found in silkworms.

Pasteur went on to build a skilled research team and, as a result of chance, one of them, Charles Chamberland, chanced upon a vaccine for chicken cholera when a batch of chickens were wrongly injected with a weakened dose of the chicken cholera germ. The process of vaccination had been known about since Edward Jenner had discovered the smallpox vaccine in 1796 but no one knew how it worked. Pasteur and his team managed to show how injecting a weakened strain of a disease built up the body’s defences so that it recognises and is able to fight off a stronger strain of the disease when exposed to it. Pasteur and his team continued to work on this technique so that vaccines against anthrax and then rabies were quickly developed.

Pasteur’s main rival at this time was a German doctor, Robert Koch. Germany had only just defeated France in the Franco-Prussian War and both men were spurred on by national, as well as personal pride. In the 1870s Koch took Pasteur’s work a stage further when he devised a technique for making germs visible using a microscope and an industrial violet dye. This was particularly important since there were those who doubted the validity of Pasteur’s work and even the existence of germs. Now, Koch had at last provided irrefutable proof of invisible, airborne germs.

Like Pasteur, Koch led a highly skilled research team and they went on to photograph and classify different germs. Koch called his work ‘microbe hunting’. In 1882 Koch and his team identified the specific germ that causes tuberculosis. Koch’s work was highly influential and other scientists such as Paul Ehrlich and Sacahiro Hata began using his methods: within twenty years the germs that cause typhoid, diphtheria and pneumonia had been identified.

I think that Louis Pasteur made the greatest contribution to the battle against infectious disease because his work provided the initial breakthrough. Although Robert Koch’s work contributed more directly to saving human lives with the discovery of the tuberculosis and cholera germs, for example, Koch would not have been able to do this work without Louis Pasteur laying the foundations of germ theory: with his work for the French wine industry and with vaccines for animal diseases.

**Theme 2: Surgery and anatomy**

**1.4 Surgery and anatomy in the ancient world, c.10,000BC–c.AD500**

**Exam practice (page 28)**

**1. What does Source A suggest about surgical knowledge at this time? *(4 marks)***

Source A suggests the Ancient Greeks were able to perform some surgical procedures. In the picture there is a cup that doctors would use when bleeding a patient in order to bring their four humours into balance, as well as what look like scalpels, forceps and dental pliers. This suggests that although the Greeks were more interested in the causes and cures of disease and the maintenance of good health through diet and exercise, they did not ignore surgery completely.

**Exam practice (page 30)**

**1. What does Source A suggest about the influence of Galen on medicine? *(4 marks)***

Source A suggests that Galen had a huge impact on medicine as it dates from 900 years after his death. This indicates that Galen (and Hippocrates) was still highly respected. The painting is on the wall of a church suggesting that Galen’s work had the support of the Christian Church. This is important since the Church controlled education in Western Europe during the Middle Ages, including the training of doctors. Galen’s books and research built upon what Hippocrates had said and by giving their approval to Galen’s work the Church ensured that it was taught and unchallenged for about 1500 years. Therefore Galen was very influential in the history of medicine.

**1.5 Medieval and Renaissance surgery and anatomy, c.500–c.1700**

**Exam practice (page 35)**

**1. Which of these individuals contributed most to the development of surgery and anatomy?**

* **Ambroise Paré**
* **William Harvey**

**Explain your answer. Try to refer to** both **individuals in your answer. *(8 marks)***

Ambroise Paré and William Harvey were two of the great pioneers of surgery and anatomy in the sixteenth and seventeenth centuries. The two men were very different: Paré was a practical barber surgeon who learned his trade as his brother’s apprentice; Harvey was more academic, with degrees from Cambridge and Padua Universities.

As an army surgeon Paré developed a new treatment for gunshot wounds. The usual method was to cauterise them with a hot iron and boiling oil. This was painful and disfiguring. By chance, Paré ran out of cauterising oil as a group of wounded soldiers were admitted to his hospital. For some time he had been considering an alternative treatment based on a soothing ointment made from egg yolks, turpentine and rose oil, but had not yet tried it out. With no alternative, Paré applied the ointment to the soldiers’ wounds. His patients recovered with less pain and wounds healed better. Paré went onto use a new method to stop patients bleeding: he used ligatures made of silk threads to suture or stitch wounds and also pioneered the use of artificial limbs. His book *Works on Surgery* (1575) contained descriptions of his methods and detailed drawings. It became very popular and was translated into many languages in Europe and the Middle and Far East.

However, Paré did not completely remove pain from surgery. His use of anaesthetics was limited and patients felt pain as their wounds were sutured. Paré did not use antiseptics and the silk threads used for the ligature could introduce infection into the body. Although much of modern surgery may have its origins in Paré’s work, he was not particularly influential in his lifetime. Firstly, many surgeons preferred to operate at speed and found Paré’s methods fussy and slow. Secondly, most of Paré’s contemporaries had been to university and felt that they had little to learn from an uneducated barber surgeon. In any event Paré and his ideas were initially ignored.

William Harvey contributed to knowledge about the structure and working of blood in the human body. Harvey conducted a series of scientific experiments on such animals as rabbits and reptiles and discovered that blood is pumped around the body by the heart. This circulation of the blood theory disproved Galen’s idea, which had stood largely unchallenged for almost 1500 years, that the blood was a fuel that was burned up by the body. Harvey kept detailed records of his observations and experiments and these became the basis of his book, *On the Motion of the Heart and Blood*, published in 1628.

Although Harvey had received a university education his ideas also met with resistance. Firstly, Harvey could not explain how blood moved from the arteries to the veins as there were no microscopes available at the time powerful enough to see the capillaries. As a result Harvey’s circulation model was incomplete and challenged by those who clung to Galen’s ideas. Secondly, Harvey’s work did not help doctors cure their patients and was largely ignored as doctors continued to prescribe treatments based on the four humours. This is shown by the treatment given to King Charles II in 1685. No one would benefit from Harvey’s circulation of the blood theory until blood groups were identified by Karl Landsteiner in 1901 and blood transfusions became possible. Consequently it took at least 50 years for Harvey’s work to be accepted and taught to medical students in universities.

Comparing the contributions of Paré and Harvey to the development of surgery and anatomy, Harvey stands out. Paré made practical suggestions that directly helped patients. His work was done through trial and error and, of course, chance. Harvey, on the other hand, used a more scientific approach and was more of a Renaissance figure. Paré directly helped his patients, whereas Harvey helped other doctors and scientists, though not immediately. Harvey’s work had a long-term impact and contributed to the knowledge that doctors, scientists and surgeons use today, while Paré’s work was limited in its impact, had defects in practice and contained risks as with the use of ligatures. Harvey’s work remains valid today whereas Paré’s has long been overtaken.

**Exam practice (page 35)**

**1. Which of these individuals contributed most to the development of surgery and anatomy?**

* **Ambroise Paré**
* **Andreas Vesalius**

**Explain your answer. Try to refer to** both **individuals in your answer. *(8 marks)***

Ambroise Paré and Andreas Vesalius were two of the great pioneers of surgery and anatomy in the sixteenth century. The two men were very different in that Paré was a practical barber surgeon who learned his trade as his brother’s apprentice. Vesalius, by contrast, was an academic having studied in both France and Italy. Paré worked as a surgeon in the French army whereas Vesalius was Professor of Surgery at Padua University.

While serving as an army surgeon Paré developed a new treatment for gunshot wounds. At this time the usual method used to treat gunshot wounds was to cauterise them with a hot iron and boiling oil. This was painful and produced ugly, disfiguring scars, although it did act against the poisoning effect of the gunshot wound. Paré doubtless learned this technique by observing other battlefield surgeons. By chance Paré ran out of cauterising oil as a group of wounded soldiers were admitted to his hospital. For some time Paré had been thinking about trying an alternative treatment based on a soothing ointment made from egg yolks, turpentine and rose oil, but had not yet tried it out. With no alternative, Paré applied the ointment to the soldiers’ wounds and found that his patients recovered with less pain and that their wounds healed more neatly. Paré went on to use a new method to stop patients bleeding. He used ligatures made of silk threads to suture or stitch wounds and also pioneered the use prosthetics or artificial limbs. His book *Works on Surgery* published in 1575 contained descriptions of his methods and detailed drawings of artificial hands with mechanical levers replacing the fingers. *Works on Surgery* became very popular and was translated from its original French into many languages in Europe and the Middle and Far East.

Nevertheless, Paré did not completely remove pain from surgery. His use of anaesthetics was very limited and patients felt pain as their wounds were sutured and in the post-operative recovery. Paré did not use antiseptics and the silk threads used for the ligature could introduce infection into the body. Although much of modern surgery may have its origins in Paré’s work, he was not particularly influential in his own lifetime. Firstly, many surgeons preferred to operate at speed and found Paré’s methods fussy and slow. Secondly, most of Paré’s contemporaries had been to university and felt that they had little to learn from an uneducated barber surgeon. In any event Paré and his ideas were initially ignored.

A contemporary of Paré, Andreas Vesalius, made his contributions to the study of the structure and working of the human body and corrected many of the long-standing errors based on the works of Galen, who had been the authority on surgery and anatomy to this point. Influenced by the Renaissance spirit of observation, enquiry and experiment, Vesalius decided to repeat Galen’s investigations into anatomy. Unlike Galen who only dissected animals such as apes, dogs and pigs, Vesalius was able to dissect human corpses and in doing so discovered several of Galen’s mistakes. For example, Vesalius discovered that the human jawbone has one part, not two as Galen had said because he had only studied apes. Similarly, the human kidneys are located side by side and not, as Galen said, one on top of the other as they are in dogs.

Vesalius’ findings, which he published in his book *The Fabric of the Human Body* in 1543 marked the beginning of the end of Galen’s dominance of medical knowledge, but as with Paré, Vesalius’ impact was limited in his lifetime. This was because many doctors and scientists would not accept that Galen could be mistaken. Vesalius was seen as some arrogant upstart for daring to suggest that he was. Finally, Vesalius’ work was seen as having little practical value. Doctors were unable to use Vesalius’ anatomical drawings to cure their patients and so *The Fabric of the Human Body* was largely dismissed.

So who contributed the most to the development of surgery and anatomy, Paré or Vesalius? Paré made practical suggestions that directly helped patients. His work was done through observation, trial and error and, of course, chance. Vesalius, on the other hand, used a more scientific approach and was more of a Renaissance figure. Paré helped his patients by relieving some of their pain for example, whereas Vesalius helped other doctors and scientists but not for some time. Vesalius’ work had a long-term impact and contributed to the knowledge that doctors, scientists and surgeons use today, while Paré’s work was limited in its impact and had defects in practice and contained risks such as the use of ligatures, which could introduce infection into the body. Vesalius was anatomically correct and his discoveries are still valid whereas Paré’s work has been superseded.

**1.6 Surgery in the industrial modern world, c.1700 to the present day**

**Exam practice (page 40)**

**1. Which factor has contributed most to the development of surgery in the twentieth century:**

* **war**
* **science and technology?**

**Explain your answer. *(8 marks)***

Modern surgery is a complex mix of skill and high technology. Operations that were once considered risky, such as the removal of the appendix, are now regarded as routine, and today’s operating theatres are full of multi-million pound equipment, including computer-controlled breathing apparatuses, brain and heart function monitors as well as fibre-optic lasers and cameras. There are many factors that have contributed to these and other developments in surgery, among them war and science and technology.

Although war is usually seen as devastating and disruptive, throughout history there have been examples of warfare contributing to advances in certain fields, including surgery. War was common in the Middle Ages and surgeons had no shortage of wounded soldiers on whom they could practise new techniques and methods. It was during the Middle Ages, for example, when wine was first used for cleaning wounds and opium was introduced as an anaesthetic. In the sixteenth century Ambroise Paré introduced a new method of treating wounds using a soothing ointment rather than cautery irons, and although this development is normally regarded as the result of chance, Paré was working as a surgeon in the French army when the opportunity to test his idea was presented to him.

During the First World War, blood groups were identified and successful blood transfusions were first performed. Similarly, a method of storing blood for later use using sodium citrate to prevent the blood from clotting was first introduced at this time. The discovery of how to mass produce penicillin by Howard Florey and Ernst Chain was made during the Second World War, so that penicillin could be given to wounded Allied soldiers after the D-Day landings in June 1944.Techniques for plastic surgery and skin grafting were pioneered in the First World War and further developed by Archibald Macindoe in the Second World War. War has driven notable developments in reconstructive surgery – a direct result of modern-day conflicts in Iraq and Afghanistan has been the rebuilding and replacement of shattered limbs caused by improvised explosive devices.

The role of science and technology in the development of surgery cannot be ignored. Wilhelm Röntgen discovered X-rays in the early twentieth century and this enabled doctors to look deep into the human body without cutting into it. Modern-day cancer treatments are rooted in early-twentieth-century physics and the work on radiology pioneered by Marie Curie.

In the 1950s and 1960s transplant surgery was introduced. Science and technology contributed to developments here through not only the manufacture of precision tools, but also in life-support apparatuses that enabled the patient to be kept alive while vital organs such as the heart and lungs were removed. Powerful antiseptics and auto-immunosuppressants to prevent the rejection of foreign tissue have been developed by drug companies, and these have proved so effective that complex operations such as heart transplants (first done successfully by Christiaan Barnard in 1967) are now possible. Surgeons today prefer to operate without making large cuts in the body and wherever possible operate through tiny incisions. This keyhole surgery uses fibre optic cables containing cameras and lasers instead of knives or scalpels.

So which of these two factors, war or science and technology has contributed the most to the development of surgery? Science and technology has undoubtedly made significant contributions including those necessary for successful transplants, and while some of these have come about as a result of war, such as the mass production of penicillin, it is doubtful whether many of the advances made in wartime such as the discovery of X-rays or the improvements in prosthetic surgery could have been sustained without the support from science and technology.

**Exam practice (page 40)**

**1a Choose one of the periods below:**

* + **The sixteenth and seventeenth centuries**
  + **The nineteenth century**

**What were the main developments in surgery and anatomy in your chosen period? *(4 marks)***

In the sixteenth and seventh centuries there were important changes in the knowledge of anatomy and some improvements in surgery. Before Vesalius, who wrote his anatomical textbook *The Fabric of the Human Body* in 1543, doctors believed that the books of Galen and other ancient doctors were completely accurate and that there was no need to learn more about anatomy or to dissect human bodies. Vesalius was the first to prove that some of Galen’s ideas about anatomy were wrong – for example, he showed that the human jaw was made up of only one bone, not two as Galen had written. Galen’s ideas were based on dissecting animals but Vesalius said that it was vital that doctors did human dissection to find out about the structure of the human body. As a result, *The Fabric of the Human Body* was the most accurate map of human anatomy, partly because Vesalius used the very best artists so that doctors could learn from the very best illustrations.

William Harvey’s specialism was the circulation of the blood. Many doctors still believed in Galen’s idea that new blood was being constantly manufactured in the liver to replace blood that was burnt up in the body. This idea had been challenged by a number of doctors but no one had proved exactly how blood moved around the body until Harvey in 1628. He showed that blood circulated round the body and it was carried away from the heart by the arteries and returned to the heart by the veins with the heart acting as a pump.

Paré was a surgeon at a time in the sixteenth century when wounds were treated by pouring boiling oil onto them as a way of helping the healing process. Paré discovered that wounds heal more quickly if simple bandages were used rather than boiling oil. Pare was also the first to challenge cauterisation as a way of sealing wounds after amputation. Instead, he used ligatures to tie off the blood vessels. While this was less painful for the patient, the ligatures could cause infection, complications and death, so were not adopted as readily by other surgeons.

**1b Which of these periods was more important in the development of surgery and anatomy? Explain your answer. *(8 marks)***

Both the Renaissance (sixteenth and seventeenth centuries) and the nineteenth century were important times for developments in surgery and anatomy. The Renaissance period saw important advances in the understanding of human anatomy. In the nineteenth century doctors became capable of performing safer, more effective surgery.

Vesalius and Harvey were two very important people who helped increase knowledge about anatomy. Harvey and Vesalius both did dissections. The methods they used were almost as important as the discoveries they made. Vesalius used observation and hands-on dissection. He said doctors should be taught this way and new knowledge gained through dissection. He created the new science of anatomy. His work disproved Galen, who had been an authority for centuries using the method of animal dissection. Vesalius discovered that the human jaw was made up of only one bone and proved by human dissection that Galen, who said the human jaw had two bones based on his dissection of apes, was wrong. This was a massive achievement to overcome the traditional belief that Galen was always right. Harvey’s methods were also scientific. He measured the amount of blood passing a point in the body and calculated that for it to continue at that rate for over an hour it would result in a quantity of blood that was three times the weight of the person – an impossible event. Harvey put rods down veins to show how one-way valves prevented blood from flowing in both directions. He dissected human hearts and the bodies of cold-blooded animals to observe how the heart worked. He concluded that it worked like the mechanical pumps that were being developed at the time.

Paré’s treatment for wounds was a vast improvement because, before Paré, wounds were treated by pouring boiling oil onto them. Paré discovered that wounds heal more quickly if a mixture of turps, rose oil and egg yolk was used. Paré also rejected cauterisation as a way of sealing wounds after amputation. Instead, he used ligatures to tie off the blood vessels. While this was less painful for the patient, the ligatures could cause infection, complications and death, so were not adopted as readily by other surgeons. Even though there were some complications he was the first to challenge cauterisation.

All these developments in surgery and anatomy were widely available because of the invention of the printing press. Vesalius’ *The Fabric of the Human Body* (1543) was a ground-breaking book – the first modern anatomical textbook, which astonished readers with the accuracy and clarity of its 23 full-page illustrations. Harvey’s book on *The Circulation of the Blood in Man and Animals* (1628) took full advantage of the Renaissance technology of printing. Paré’s book, *Works on Surgery* (1575), was also a great success and was translated into many European languages.

However, Vesalius’ work encountered much opposition because, like Harvey, this was based on his criticism of Galen. Fortunately for Vesalius he had a powerful patron in Charles V, the Holy Roman Emperor, who made him a court physician. Similarly Harvey’s discovery about circulation was not taught to medical students at the University of Paris until 1673. Another important drawback was that the work of Vesalius and Harvey had no practical application in the treatment of patients. For example, the idea of blood transfusions had to wait until 1900, and the discovery of blood groups by Karl Landsteiner, before it became a reality.

In the nineteenth century there were three main problems during surgery – pain, infection and bleeding. Operations in 1800 were done very quickly and surgeons like Robert Liston prided themselves on the speed with which they could operate. Operations were done quickly because they had no effective pain relief. Unfortunately, no matter how quickly they operated, patients died because there was no knowledge of the reasons for infection. Germs, it was believed, were a product of disease. As a result many patients died of the dreaded hospital sickness.

The first problem of surgery to be overcome was that of pain during an operation. James Simpson used chloroform in 1847 to ease pain during childbirth. He preferred it to ether, which irritated the patient’s lungs and could be flammable. As a result chloroform replaced ether in most European operations. Some surgeons opposed Simpson’s use of chloroform because they were unsure about its effects and how much to give. Some people thought it was unnatural to stop pain in childbirth because they thought that pain was God given. In spite of this opposition, the case for chloroform slowly advanced and became unstoppable after Queen Victoria used it in childbirth.

Infection rates soared after the development of effective anaesthetics because, although surgeons could make the patient unconscious, they were now infecting them more thoroughly. Surgery changed again when Joseph Lister began experimenting with an antiseptic method after reading about Pasteur’s germ theory. Lister believed that germs were the cause, not the result, of infection. Lister found that a thin mist of carbolic acid sprayed over the wound during surgery limited infection. Bandages and instruments were soaked in carbolic acid. As a result his death rate during surgery fell from 45.7 per cent to 15 per cent.

These two periods contributed to the development of surgery and anatomy in different areas – the sixteenth and seventeenth centuries in anatomy and the nineteenth century in surgery. It must have been very exciting to be a doctor in the Renaissance period as centuries of ignorance were being overturned with new knowledge. However, little of that knowledge improved treatments. The application of a scientific approach at this time was also an important change to developing further knowledge. Vesalius was a general anatomist but his successors, Fallopia, Fabricius and Realdo Colombo, all specialised in different parts of the body. While it was doctors who perhaps benefited most from new knowledge during the Renaissance, in the early nineteenth century it was the patient who benefited most from the developments in surgery. In 1800 the patient dreaded the prospect of an operation as they faced pain and the prospect of death from infection. By the end of the century both the pain of the operation and the threat of infection had been largely removed. This had been achieved by the application of scientific discovery to the field of medicine. Chemistry played a part in supplying chemicals like chloroform and carbolic acid while physics provided X-rays for diagnosis. However, it is possible to argue that the discoveries that benefited patients in the nineteenth century were built on the greater knowledge of anatomy started by Vesalius and Harvey.

**Theme 3: Public health**

**1.7 Public health in the pre-industrial world, pre-c.1750**

**Exam practice (page 45)**

**1a Study Source A. What does it suggest about public health in Ancient Rome? *(4 marks)***

The source shows that the Romans had good technical skills in engineering and architecture because they could build places like this. They would not have spent so much time and money on providing these facilities for the public unless they valued cleanliness, either because they liked to feel clean or because they realised that being clean meant you were more likely to be healthy. They must have valued baths and bathing for all the people throughout their empire or else they wouldn’t have built baths in Britain, which was a distant part of the empire. It wasn’t just in Rome.

**1b What different impression of public health is suggested by Source B? *(6 marks)***

Public health must have been bad at the time of picture B because the number of dead bodies shows that epidemic diseases were devastating and that people had no answer to them. They approached the church for comfort and looked to religion or superstition for some hope that the disease could be defeated. This shows that in the Middle Ages they had no understanding of what caused disease or how it spread. The bodies are all piled up in the street so the people don’t know about public health and how to keep a public place clean whereas in Roman times they had public facilities like the baths shown in picture A, which enabled them to keep clean. This suggests that the Romans had a more practical approach to public health that involved building facilities to keep all their people healthy, wherever in the empire they lived.

**1c Why was public health different at these times? *(8 marks)***

Public health was different partly because government was different at these times. In Rome and the empire there was clear authority from the emperor down to make decisions and to see that laws were enforced. There were authorities in medieval towns but the enforcement was weak. Conditions in the towns were often impossible to keep clean as the roads were unpaved and people lived closely with their animals. Houses were packed together so paid officials found it hard to remove all the rubbish and filth even if they had the will to do so. By the Middle Ages the Roman empire had fallen apart so the effective systems of public health that they had built had fallen into disrepair. The Romans had the engineering skills necessary to plan, design and build aqueducts, latrines and sewers but at the beginning of the Middle Ages there was not the knowledge or will to repair them. Attitudes were also different. In the Roman Empire there was wealth to spend on making the towns and empire an attractive place. The Romans also realised that healthy slaves, workers, merchants, traders and, most importantly, soldiers were necessary to keep the empire strong. The medieval towns were wealthy but town leaders did not want to spend money keeping the town clean. They may have thought that they would be unpopular if they spent money cleaning up areas where the rich rate-payers did not live. Kings often thought they should concentrate on other things like war and conquest or defence rather than public health.

**Section 2: The American West, 1840–95**

**2.1 The Great Plains and the Plains Indians**

**Exam practice (page 59)**

**‘Without the buffalo the Indians would not have been able to live successfully on the Great Plains.’ How far do you agree with this interpretation of why the Indians were successful at living on the Plains? Explain your answer. *(12 + 4 marks)***

The buffalo was very important in allowing the Indians to live successfully on the Plains. Every part of the buffalo was used by the Indians and nothing was wasted. Its flesh was eaten by the Indians and could be dried as pemmican to be eaten on long journeys by the tribe. The raw hide could be used as everything from containers to travois lashings, or it could be tanned for items such as bedding, leggings, moccasins or tipi covers. Tendons were used as bow strings and sewing thread while buffalo dung was used as fuel.

However, there were other factors that allowed the Indians to live successfully on the Plains. The tipi was a cone-shaped tent made of buffalo hides. Its shape was sturdy in strong winds, which was practical because there were often very strong winds on the Plains that would have damaged weaker structures. Being made of buffalo hides was a good adaptation because it was a widely available material, making the tipi easy to build and repair. Tipis were also very easy to take down and light to transport, which was useful because the Plains Indians were a nomadic people and this portability allowed them to follow the herds of buffalo quickly and efficiently.

Horses were also an important part of Indian life on the Plains. They could be used to transport families and belongings by pulling a sledge-like structure called a travois, which was made of tipi lashings and poles. The horse allowed hunters to kill buffalo more easily and more safely, over longer distances and more often as the carcass could be carried back to the tribe more quickly and with less effort. This meant that the tribe would have more food and resources. Horses could also be used in warfare because they allowed the Indians to attack more distant and valuable targets and made it easier to escape from battles. This was important because it allowed more damage to be done to enemy tribes while ensuring more men survived to hunt and protect the band.

The Indians were also able to live successfully on the Plains because they lived in harmony with nature and their environment. The Plains Indians had a complex religion based on the belief that all living things had a spirit and that they should be respected in order to please the Great Spirit – the creator (Wakan Tanka). The Great Spirit could be asked for help through dances such as the Buffalo Dance or thanked for victory in battle with the Scalp Dance. Through these dances the whole tribe was brought together and given a sense of unity. The land itself was seen as a living thing that could not be owned, farmed or mined. This made sure that the Indians respected nature and so couldn’t overexploit resources, particularly the buffalo.

The fact that men and women had different roles in the tribe was also important to the success of the Indians on the Plains. The men hunted, made decisions and defended the camp while the women prepared food, made clothes, had children and looked after the tipi. Children were seen as the future of the tribe and were taught and cared for by older members of the tribe and the extended family. Boys, for example, were taught from an early age through play how to use a bow and arrow or how to hunt so that they could play their full part in the tribe when older. Old people were respected for their experience and wisdom and played a valuable role as storytellers, passing on the traditions and history of the tribe. In this way the tribe was given a sense of common purpose through a link to the past.

It is possible to interpret the success of the Indians as due to the buffalo alone but it was the combination of the horse and buffalo that was crucial to this success. For a long time the Indians lived difficult lives on the fringes of the Great Plains growing maize and beans, occasionally hunting buffalo on foot. Acquiring horses from white settlers changed their lives forever as the horse gave them power and freedom. This was why an Indian gauged his wealth by the number of horses he owned. They could now follow the herds of buffalo over the Plains and hunt them more efficiently to gain all the materials needed for their life on the Plains. The Indians themselves realised the importance of the buffalo to their success because although every part was used, the heart was always buried to bring new life to the herd. White settlers also realised the importance of the buffalo, hence their destruction of the herds as a way of defeating the Plains Indians.

**2.2 Early settlers in the Far West**

**Exam practice (page 66)**

**1. Why did white Americans travel across the Great Plains before 1850? *(10 marks)***

Mountain men like Jim Bridger and Jim Beckworth crossed the Great Plains to get to the Rocky Mountains where they hunted and trapped animals such as beavers for their fur. Beaver skin hats were very fashionable in Eastern America and Europe in the early nineteenth century so these trappers could make a lot of money trading the furs. They often worked for fur-trading companies but some worked for themselves and got the best price they could.

Other people travelled across the Plains before 1850 to get to the Pacific coastlands of Oregon and California. They had heard stories or read about the fertile farm land there and often had a poor, miserable existence in the cities of the East where there had been an economic depression in 1837. Banks failed, people lost their savings and unemployment was high, but in 1842 the government passed the Pre-emption Act saying that anyone who squatted on a 160-acre plot of land for over a year could buy it at a cheap rate. As a result families travelled across the Plains hoping for a better life as farmers on the West coast.

In January 1848 James Marshall discovered gold at Sutter’s Fort in California and when the news reached the East coast, thousands began making their way there, hoping to make their fortune. The largest migration was in 1849 and by the end of that year there were 90,000 miners in California alone. Although many came by sea, a lot of these ‘49ers, as they were called, would have travelled across the Plains.

The Mormons also crossed the Plains before 1850. They were a religious group founded in 1831 by Joseph Smith. They wanted to build their own holy city or Zion but they were persecuted wherever they had tried to settle in the East. First of all they were driven out of Kirtland in Ohio, but things were no better when they moved to Missouri. In 1839 they tried to build their holy city at Nauvoo in Illinois but again faced prejudice from non-Mormons who believed that they were trying to take over. In 1844 Joseph Smith was killed and his successor as leader, Brigham Young, decided that if they were to have the religious freedom to worship as they wanted and avoid further persecution they would have to cross the Plains to the uninhabited area around the Great Salt Lake in Utah. This is what they did, reaching their destination in July 1847.

What links all the groups who crossed the Plains before 1850 was a pull factor – the hope or belief that they would have a better life. For the Mountain Men and miners it was the chance to earn money through trapping or panning for gold; for the pioneer farmers and Mormons it was to start a new life away from the economic troubles or religious persecution in the East.

**2.3 Cattlemen and cowboys**

**Exam practice (page 72)**

**1. Using Source F and your own knowledge explain why the work of a cowboy was difficult and dangerous. *(8 marks)***

The source shows two cowboys trying to lasso a steer. This was difficult because the cowboy had to control his horse at the same time as getting the lasso over the head of the steer. Texas Longhorns were big, powerful animals and they could easily pull the cowboy off his horse if he didn’t know what he was doing. That’s why there are two cowboys because it will take both of them to control the steer.

Perhaps the most dangerous part of a cowboy’s work was when a herd stampeded. The cows could stampede because of noises in the night or animals attacking. They could run for several miles. The cowboys tried to turn them round on themselves to wear them out but this was especially dangerous at night or over rough ground. A cowboy might be knocked off his horse by stampeding cows and crushed to death.

Crossing of rivers could also be difficult if they were wide and fast flowing. Cowboys would try to cross where a river was shallow but this wasn`t always possible. Controlling a large herd while it swam across a wide, deep or fast-flowing river was dangerous as the cowboy could be swept away and drowned by hidden currents.

There was also the problem of disputes with other groups. As homesteaders spread across the Plains their farms blocked the trails. They often made life difficult for the cowboys because the Texas Longhorns carried a tick that spread disease to the homesteaders’ own cattle. Some Indians wanted payment for crossing their lands while others tried to steal cattle. Rustlers would also steal cattle because they were valuable.

**2.4 Farming on the Great Plains: The homesteaders**

**Exam practice (page 77)**

**‘The new farming methods were the main reason white people were able to settle on the Great Plains.’How far do you agree with this interpretation of why white people were able to settle on the Plains? Explain your answer. *(12 + 4 marks)***

There are several ways of interpreting the success of the white settlers in being able to overcome the problems facing them on the Great Plains.

New farming methods and technology were very important. When homesteaders first moved onto the Plains they found that the crops that they had brought with them from the Eastern states or Europe wouldn’t grow due to the harsh weather conditions on the Plains. The solution to this problem was to grow Turkey Red wheat which was brought onto the Plains after 1874 by Russian immigrants. Conditions in parts of Russia were similar to those on the Plains so this wheat was a success, also proving to be more resistant to drought and disease. Another problem was the water supply as there were large areas of land with little water available. Annual rainfall only averaged 38 cm, which wasn’t enough for farming and it also tended to fall at the wrong time of year. This problem was overcome by ‘dry farming’ when the ground was ploughed immediately after it rained to keep the moisture in the soil. Technology also helped because in 1854 Daniel Halliday invented a wind pump that allowed water to be raised from deep underground.

Hostile Indians could be a problem for those settling on the Plains so their removal to reservations by the government was helpful. Gradually the Indians were moved into smaller and smaller areas of land away from the settlers. For example in 1861 the Fort Wise Treaty set up the Sand Creek Reservation for the Cheyenne and this policy was extended to other tribes in 1867 (The Medicine Lodge Treaty) and 1868 (The Fort Laramie Treaty). If the Indians left the reservations and raided white farms the US army was used to defeat them at battles like Washita or Wounded Knee.

The railroads were also important because they improved transport links throughout the whole of the United States. Travel and communication from East to West was much easier so the homesteaders had easier access to wider markets to sell their produce. They could also bring the things that they needed onto the Plains – wood to rebuild their sod houses, for example, or the new farm machinery like reapers and binders. The railroads also helped solve the problem of a lack of law and order on the Plains because now lawmen could travel far more quickly across the wide expanses of the Plains to deal with criminals.

The government passed several laws and acts that helped the settlers. Many people who would have liked to move onto the Plains couldn’t afford to buy land but the government solved this problem when in 1862 they passed the Homestead Act, which gave 160 acres of land to each family on the Plains. The land was free as long as the family lived and farmed there for five years. Some homesteaders complained that 160 acres wasn’t enough to support a family because of the poor quality of the soil, so in 1873 the government passed the Timber and Culture Act, which awarded a further 160 acres of land as long as 40 acres were planted with trees.

Finally there was the hard work and determination of the homesteaders themselves to overcome the problems that they faced. Whatever the problem, they seemed to come up with a solution. There was no wood to build with so they built sod houses out of earth bricks. There was no fuel for fires so they burnt buffalo chips just like the Indians did. There were no doctors so they had to make up their own medicines such as using warm urine for earache.

However, this hard work and determination only got you so far. Homesteaders were farmers so if you had poor quality land or there were years of drought then it would be very difficult to survive, however hard you worked. That’s why this is the most convincing interpretation. It was new farming methods and technology that were most important in overcoming the problems of the homesteaders. It wasn’t just the wind pump and Turkey Red but also John Deere’s sodbuster that allowed you to plough the hard ground and John Glidden’s barbed wire that meant that you could fence off your land, all of which were crucial in the successful settling of the Plains.

**Exam practice (page 78)**

**1a What does Source A suggest about life on the Plains? *(4 marks)***

Source A suggests that it was a good life on the Plains and that the settlers wanted for nothing. They’ve built a sturdy log cabin from wood and the men are bringing back meat that they’ve hunted so there will be plenty to eat. They are all well dressed and look happy which suggests that they won’t have regretted moving onto the Plains.

**1b What different impression of life on the Plains is suggested by Source B? Explain your answer using the sources. *(6 marks)***

Source A shows a good life on the Plains that provided the settlers with everything they needed, whereas Source B suggests that it was a difficult and unpleasant life with poor basic toilet facilities and without many comforts. Source B describes a sod house whereas in Source A it’s a log cabin, which doesn’t look like it would leak water like Dr Barns describes. It doesn’t sound as if Dr Barns is as happy with his move onto the Plains as the settlers seem to be in Source A.

**1c Why do you think the sources give different impressions? Explain your answer using Sources A and B and your own knowledge. *(8 marks)***

Fanny Palmer who painted Source A was an artist whose work was popular in the East. People wouldn’t want to buy a grim picture so she may have made it look colourful and pleasant to attract buyers. We don’t know if Source B is from a letter or a diary but Dr Barns might be making things sound worse than they really were just to show how he was able to cope on the Plains. However, we do know that sod houses were uncomfortable with leaky roofs, dirty earth floors and walls that were infested with lice and other bugs so perhaps Source B is more realistic as opposed to Source A’s romanticised view. Also we don’t know where Fanny Palmer painted her picture. There were wooded valleys on the edges of the Plains so perhaps that’s where she painted it, while Dr Barns settled in Nebraska which is further out on the Plains. There wouldn’t have been wood available there, which is why his house had to be built of earth sods. That might fit in with the dates of the two sources because Source A was produced ten years earlier than Dr Barns’ account so those settlers might have been able to get better land with more resources. By 1878, when Dr Barns wrote about living on the Plains, homesteaders had to settle in areas like Nebraska and Colorado where conditions were far worse.

**Exam practice (page 79)**

**2b Using Source F and your own knowledge, explain why life on the Plains was hard for homesteader women. *(8 marks)***

It was very hard for women on the Plains, especially if they were used to more comfortable lives back in the East. They had to cook and do all the housework, raise the children as well as helping the men with the farming and animal care.

The source shows a woman collecting buffalo dung or chips for fuel. This was a daily job as there was no other source of fuel on the Plains. It was back-breaking work and the buffalo chips burnt very quickly so stoves had to be stoked up frequently, especially if there was cooking to be done.

It was hard to keep the sod house clean. The walls cracked in hot weather leaving dirt in the house while the earth floors soon became muddy in wet weather. The walls were infested with all kinds of insects and although whitewashing the walls helped, it couldn’t solve the problem completely. With little available water or soap, and brooms made from twigs, women on the Plains faced an endless battle against dirt.

When women gave birth on the Plains there were no midwives or doctors to help them and they had to manage as best they could. After the birth they would soon be back helping with the farm work and doing all the other jobs that they were responsible for. Having to manage on your own like this was hard. Isolated on a 160-acre homestead, miles away from neighbours or a town, meant that there was little company or social life as there had been back in the East.

**2.5 Law and order**

**Exam practice (page 83)**

**How useful is Source E for understanding the problems of law and order in the American West? Explain your answer using Source E and your own knowledge. *(8 marks)***

The content of Source E is useful because it shows that many people in the West carried guns and weren’t afraid to use them. This gun culture was a problem because people believed that it was their responsibility to settle disputes themselves so arguments could easily end in a shooting. This source shows Billy the Kid’s gang riding away from a robbery, which is useful because it shows the lawlessness and destruction caused by people like Billy the Kid or the Wild Bunch. However, one picture can’t show us all the problems of law and order like the lack of sheriffs and marshalls, or disputes between cattlemen and homesteaders that led to the Johnson County War.

We must be careful of the provenance of the source as well, because dime novels were often semi-fictional. They exaggerated events to make them more exciting so that they would sell well, particularly in the East where people didn’t know what the American West was really like. Billy the Kid was killed in 1881 and this was written by the man who killed him, Sheriff Pat Garrett, so he would want to make himself look brave to have ended Billy the Kid’s career. Garrett made quite a good living from writing and talking about Billy’s career and demise. At the time in 1882 few copies of the book sold but many later writers used it as a source of reference. This is how all sorts of stories had grown up about outlaws, often showing them as heroes rather than dangerous criminals. It is useful, however, for showing us how gunslingers like Billy the Kid were portrayed in books and newspapers at the time.

**2.6 The struggle for the Great Plains**

**Exam practice (page 89)**

**‘Custer’s actions caused the defeat of the Seventh Cavalry at the Battle of the Little Bighorn.’ How far do you agree with this interpretation of why the Seventh Cavalry lost the battle? Explain your answer. *(12 + 4 marks)***

It would be very easy to interpret the outcome of the Battle of the Little Bighorn as solely due to the actions of Custer. I will show in this essay that there were some things that were outside his control. However, there were plainly things that he could have done better.

On 21 June he rejected the offer of 180 extra men and more Gatling guns, which would have given him more soldiers to fight the Indians with, as well as greater firepower, both of which would have increased his chances of winning the battle. Custer also disobeyed orders by going across the Wolf Mountains, so he arrived at the Little Bighorn a day early. This action meant that the co-ordinated three-pronged attack planned by General Sheridan was now impossible and Custer would have to fight the Indians with just the Seventh Cavalry. Going across the Wolf Mountains meant marching his men 60 miles in two days including ten miles in one night, exhausting them and making them unfit for battle. He also ignored the warnings of his Indian scouts about the size of the Indian camp and split his men into three smaller sections commanded by, himself, Reno and Benteen. Although this tactic had worked for Custer in previous battles, at Little Bighorn a lack of clarity about the strategy led to Custer’s 225 men being quickly surrounded, and massacred.

However, there were other factors in Custer’s defeat including the role played by the Indians. Knowing that the white people were trying to destroy them, they were fuelled with rage and anger, and were determined to defend what they saw as their territory. This determination was combined with the confidence of victory given to them by Sitting Bull’s Sun Dance of victory and Crazy Horse’s brave example in the battle. Equally important was the fact that the Sioux had been joined by some of their traditional enemies such as Cheyenne and Arapaho to form a force of some 12,000 Indians. Vastly outnumbering Custer’s Seventh Cavalry gave the Indians a tremendous advantage in the battle. Also important was the fact that the Indians had better guns, ironically given by the US army, in the form of Winchester Repeating Rifles, which fired several bullets without the need to reload. In contrast, Custer’s men only had Springfield single shot rifles that were liable to jam, meaning that they had far less effective firepower than the Indians.

Major Reno and Captain Benteen can also take some responsibility for the defeat becaus e they had received an order from Custer to support him but did not do so. They, with 125 men each, had been sent by different routes to the southern end of the Indian camp, but Reno’s initial attack had been repulsed and when he was joined by Benteen they were surrounded and suffered many casualties. In the enquiry that followed the defeat, they argued that they couldn’t follow Custer’s order to support him because they were under attack themselves.

The judgement of the army commanders Terry and Sheridan can also be questioned because the original plan of a three-pronged attack was very difficult to carry out as there was no effective communication between the various armies. Also, no attempt was made to find out how many Indians there actually were at Little Bighorn. Putting Custer in charge of the Seventh Cavalry can also be seen as an error of judgement as he had a history of being unreliable and disobeying orders.

It has been argued that bad luck played its part as Custer didn’t know how large the force against him was or that they had superior weaponry. Custer attacked because he expected the Indians to run, which was their usual tactic, and he couldn’t have predicted that they would fight a pitched battle. Finally he wasn’t able to attack the Indian village because quicksand stopped him crossing the river, so he was forced up onto hills above the river where he was easily spotted by the Sioux.

However, it is difficult not to agree with this interpretation. Despite all of the circumstances beyond Custer’s control, luck, the actions of the Indians, it was Custer’s decisions that proved decisive in causing the defeat of the Seventh Cavalry in 1876. For example, he ignored warnings from his Indian scouts about the size of the Indian camp, while his poor relationship with Reno and Benteen made them less inclined to help him. More careful scouting of the terrain in the Little Bighorn might have allowed him to avoid the quicksand. It is impossible to say what might have happened if Custer’s actions had been different, but with extra guns and men and a Seventh Cavalry, fresh and ready for battle, taking part in a co-ordinated attack as planned, the disastrous events of 25 June 1876 may not have happened.

**Exam practice (page 91)**

**1 How useful is Source E for understanding the fate of the Plains Indians? Explain your answer using Source E and your own knowledge. *(8 marks)***

Source A is very useful for understanding the fate of the Indians after they had been defeated on the Plains. It shows an Indian ploughing the land rather than following their traditional life of hunting buffalo. This is what happened to the Indians after the Battle of the Little Bighorn in 1876 when the government’s policy was to destroy their way of life and culture completely. The Indians were moved onto reservations, often away from their own areas, and placed under army control. On those reservations they were given individual plots of land and forced to live like white farmers, which is why the Indian is shown ploughing. Conditions were hard as they were usually given poor-quality land as the source also shows. Their children had to go to white schools and they weren`t even allowed to speak their own Indian languages or wear their traditional clothes – something else the source shows. Traditional ceremonies and dances such as the Sun Dance were banned and missionaries converted the Indians to Christianity. The power and authority of tribal chiefs was also destroyed when they lost the right to distribute food rations or judge and punish members of their bands.

The artist was based in New York but he did travel around the West each year so would have been able to base his painting on what he saw. Although he painted it in 1931 he had been visiting the West since 1906 so had been gathering information for many years. It also says that he became particularly interested in the Plains Indians so probably would have studied them closely before doing any paintings. The source seems to be invoking sympathy. The Indian is looking unhappily at the skull of a buffalo lying on the ground while the clouds in the sky are in the shape of Indians on horseback hunting buffalo across the Plains, both of which remind him of a way of life now destroyed. This is also suggested by the title ‘Visions of Yesterday’. So although W.R. Leigh might be biased in favour of the Indians, the source is useful in showing us what happened to the Indians and the nostalgia that they must have felt for their previous life.

**Section 3: Germany, 1919–45**

**3.1 The Nazi rise to power 1: Weimar Germany**

**Exam practice (page 97)**

**1a What do Sources A and B suggest about Weimar Germany? *(4 marks)***

Sources A and B suggest that Germany is improving economically after the war and has political confidence. There is a positive air to Germany. The German people want to rebuild their economy by working hard and peacefully. The people look happy and prosperous. They are all smiling and look well fed and well dressed – a happy family.

**Exam practice (page 98)**

**1b What different view of Weimar Germany is suggested by Sources C and D? *(6 marks)***

In Sources A and B the impression is one of optimism about the future and in Source D it is very different. The Chancellor is very negative and pessimistic about the future particularly in relation to young people. The people in Source C have arrived to receive food because they are starving. There are lots of them and this is the capital, Berlin. They have to rely on charity. People are searching for explanations about what has happened to them and are prepared to accept radical explanations from extreme political parties.

**1c Why do you think Sources A and B give a different view to Sources C and D? *(8 marks)***

The sources differ because in Source B, it reveals that the seven British MPs were only visiting before the Depression struck home, so would not have seen the true picture. Source D is from a speech by von Papen, who would know the real truth about Germany because he was in charge, it is after the Depression (1932) and six million people were out of work. The British MPs would have been likely to see the better face of Germany and would be looking at whether American money was working to boost the German economy. They, of course, would be only spending a short time there (sixteen days) and may have only spent a few hours in different places. If they were on an escorted tour to prove how well Germany was doing with the money from the Young Plan, they would deliberately receive a positive impression. Von Papen speaks after the Depression has hit; he knows all the detailed reports for the whole of Germany and is not on a flying visit; he is at the centre of government. Source A would be taken for the family’s benefit but Source C could be for a different purpose, perhaps to document the effects of the Depression.

**3.2 The Nazi rise to power 2: How was Hitler able to come to power?**

**Exam practice (page 103)**

**‘It was the Depression that enabled Hitler to become Chancellor of Germany in 1933.’ How far do you agree with this interpretation of how important the Depression was in bringing Hitler and the Nazis to power in 1933? Explain your answer. *(12 + 4 marks)***

There were many factors that contributed to the Nazis’ rise to power. The Depression was the most important factor that contributed to Hitler's rise to power in 1933. However, there were many other factors that had an influence and allowed the Depression to have such a crucial impact. One of these was the constitution and government of the Weimar Republic.

In 1918 the Weimar Republic had a new democratic constitution after the Kaiser abdicated. Things went wrong from the start. Many different, and often small, political parties struggled for influence under the system of proportional representation. Many Germans preferred the Kaiser’s decisive system of government from before the war. Weimar was forced to sign the Versailles Treaty and so was tainted with the disgrace of the peace treaty in the eyes of many Germans. After the war the German economy suffered hyperinflation, which further alienated the middle classes from the government because the middle classes had most to lose as their savings became worthless. A series of rebellions by the Spartacists (1919), Kapp (1920) and by the Nazis in Munich (1923) all gave the impression that the new Weimar government did not have a secure grip on the country.

Hitler came to power in 1933 because many Germans liked theideas of the Nazis. Hitler believed that the NSDAP was more than just a political party; it was a way of life or a movement of followers (Nazism). All his followers who were German Aryans (the ‘superior’ race) should have unquestionable loyalty to their leader (*Führerprinzip*). This reminded many Germans of life under the Kaiser and Hitler was a similar strong-man figure. The Nazis gave the impression of being organised and disciplined, which appealed. There had long been anti-Semitism in Germany and Hitler picked up this prejudice and hatred and made it work for the Nazis in his speeches where he could. The Nazis started up associated organisations to spread Nazi ideas into professions, e.g. teachers. Hitler wanted to restore Germany's power after the effects of the Treaty of Versailles. This gained him support and power because the German people were angry about the treaty, so they supported him because he promised to overturn it. As well as this, Hitler promised jobs for the German public. This was a smart move as there were high levels of unemployment at the time due to the Depression.

The Nazis also gained power through propaganda; this was the work of Josef Goebbels. His propaganda campaign was very effective and won lots of support for the Nazis, with Hitler flying and driving thousands of miles around Germany to give speeches. Through propaganda the Nazis were able to target specific groups of society with different slogans and policies to win support. Hitler’s campaigns were based around simple, short, repeated terms that were spoken or visible to the public. He did this by flooding the streets with posters targeting different groups (women, the unemployed, factory or agricultural workers). Goebbels organised night rallies at which Hitler would give a passionate performance of repetitive, simple terms because he believed propaganda was more effective when heard rather than read. Hitler was an incredible speaker, who had charisma. He made all the Weimar political parties seem the same as he lumped them all together. He showed drive and self-belief, which voters liked. He believed that it was his destiny from God to become dictator of Germany and rule the world, which persuaded other people to believe and support his leadership.

The Wall Street Crash of 1929 led to an economic Depression in Germany, where unemployment rates soared to six million. Along with unemployment the Depression brought poverty, which made people angry at the Weimar government. The Weimar politician Brüning had to use the President Hindenburg’s Article 48 powers to bring in increasingly unpopular measures to deal with the crisis. Taxation went up and wages and benefits came down, unemployment followed and the German people became more desperate. The German people lost faith in the democratic system and they turned to the extremist parties like the Communists, and in increasing numbers to Hitler and the Nazis.

Hitler used violence to gain support and increase the power of the Nazi party. From 1930 Hitler had success in the Reichstag elections; this success was aided by the violent behaviour of the SA, who protected Nazi meetings and disrupted Communist ones. They made German life increasingly violent and unpredictable, so Chancellor Brüning banned them on 13April 1932. This did not suit a small group of Weimar politicians, one of whom was General Schleicher, who got President Hindenburg to change his mind about the ban. Brüning resigned and was replaced with von Papen. In the next Reichstag election in July 1932 elections the Nazis gained an impressive 230 seats. Schleicher forced von Papen’s sacking, who plotted to return to power but this time with Hitler as Chancellor.

In conclusion the Nazis came to power because the Weimar system of government allowed them to, but it was placed under the strain of the Depression. I believe that the Depression gave Hitler a presence in the Reichstag which made him valuable to established traditional politicians like von Papen. It was von Papen who included Hitler in his cabinet and persuaded Hindenburg that he would be able to control Hitler’s influence. Von Papen was naïve but believed he had bought Hitler off: ‘we’ve hired him’, he boasted to friends. But with the job of Chancellor, Hitler had access to power, leading to events that would then make him dictator of Germany.

**3.3 Control and opposition 1: How did Hitler create a dictatorship?**

**Exam practice (page 104)**

**‘It was the Reichstag Fire that enabled Hitler to become dictator of Germany after 1933.’ How far do you agree with this interpretation of how Hitler became dictator after 1933? Explain your answer. *(12 + 4 marks)***

Between January 1933 and August 1934, Hitler made himself dictator of Germany. The single most important event in the move from Chancellor to Führer was the Reichstag Fire. The Reichstag Fire happened on 27 February 1933.

In the small hours of 27 February 1933, Germans woke up to find the German parliament building burnt down. Marinus van der Lubbe was soon arrested and charged. Hitler seized upon the event and an opportunity to blame the Communists; he persuaded Hindenburg that the fire had been a symbol to inspire German Communists to revolution. Hindenburg was convinced it was necessary to pass a ‘Decree for the Protection of the People and the State’. The decree gave Hitler the power to arrest his opponents and imprison them without trial, as well as allowing the Nazis to raid their offices, tap their phones and read their mail.

The Reichstag Fire was important in making Hitler dictator because it gave him the edge over his political opponents and deprived them of the rights of citizens. For the Nazis, the Reichstag fire was a stroke of fortune. As well as allowing the decree, it also frightened businessmen into increasing Nazi funds because they saw the Nazis as the only defence against Communism. With this additional money, the Nazis' March 1933 election campaign was more successful than ever. Their number of Reichstag seats rose to 288: a record-breaking figure. The prospect of a Communist revolution seemed to fulfil all of Hitler's predictions and fit with his demonising of the Communist Party. Although accused of starting the fire themselves, the Nazis and Hitler in particular were only guilty of political opportunism.

In less than one month after the fire, Hitler had persuaded the Reichstag to vote itself out of existence. This was achieved by the passing of the Enabling Act. The Enabling Act meant that Hitler would never need to return to the Reichstag in order to pass laws. What is remarkable is that Hitler managed to convince the Reichstag they were no longer necessary.

The Enabling Act was the legal instrument by which Hitler became dictator and it was only passed because of the atmosphere of fear and confusion created by the Reichstag Fire. Adolf Hitler used his skill and sensitivity to the political mood of Germany to further exploit the opportunity. The deputies who voted for the Enabling Act did so through a mixture of inevitability, intimidation and the misguided sense that Hitler represented an escape from Germany's difficulties. The Enabling Act was the means and moment through which Hitler became dictator but not the initiative or fundamental reason.

Now that Hitler was the legal ruler of Germany, his biggest threat came from within the Nazi Party itself. Since 1930 the SA had expanded to over two million men. During 1931 and 1932 their boisterous activities had benefited the Nazi election campaign. Now, however, with his objective achieved, Hitler found them an embarrassment. What had persuaded German voters that the Weimar government was losing its grip, was now in danger of having the same effect on Hitler’s own reputation. Ernst Röhm, Hitler's friend, had been entrusted with the task of disciplining the SA. However, quite the opposite had happened; Röhm seemed to use the SA as his own power base to put pressure on the Führer. The Night of the Long Knives was Hitler's solution to the problem of the over-mighty SA.

In the Night of the Long Knives Hitler had the leaders of the 'Brownshirts' systematically executed. He had been persuaded by Goering that the SA posed a threat to his dictatorship. The fact that Hitler acted so decisively and with such pre-meditation shows his ruthlessness and efficiency as leader. After the Night of the Long Knives the SA conformed to the role Hitler gave them. This proved that his actions were well judged. As an event it was important because it removed the last genuine threat to Hitler's dictatorship.

Although the Enabling Act made him dictator, it was the Reichstag Fire that gave him the opportunity. And the Night of the Long Knives merely made sure he remained in this position. The Reichstag Fire was so crucial because the threat of impending Communist revolution created the right political atmosphere for Hitler to dominate the March 1933 elections and then succeed in passing the Enabling Act.

**3.4 Control and opposition 2: How effectively did the Nazis control Germany, 1933–45?**

**Exam practice (page 108)**

**Why did Germans find it hard to resist and oppose the Nazis after 1933? *(10 marks)***

The people were fed lots of propaganda. This made them aware of how to behave. Their neighbours told them what to do. They were frightened of the consequences of not conforming to what was expected. Hitler and the Nazis did not have enough Gestapo to police everyone; however, they managed to create a system in which the people of Germany policed themselves. The information they had was partial and controlled by the Propaganda Ministry. The Nazis controlled the newspapers and the radio. The People’s Receiver was the cheap radio the Nazis used to get their messages out to people and help control what they thought. There was no alternative view about what was happening. Some events were not mentioned. Books were censored and a message sent out by mass book burnings in 1933. Goebbels was a talented propagandist and the list of what people should not read or do was backed up by cultural events that were approved of, such as UFA’s films.

It should not be forgotten that those who wished to resist were probably in a minority, as the majority looked to Hitler to improve Germany. Groups like the Kreisau Circle and the Beck–Goerdeler group never united in their plans for opposition. Other countries did not aid opposition as, after all, Hitler had been democratically elected and other countries doubted the opposition’s ability to bring about change. The other political parties had been banned like the Communists and Social Democrats after 1934. The conservative parties had disbanded or merged with the Nazis. There was no formal voice for opposition; Germany became a one-party state. Neither did parts of the Christian church object and offer a way of resisting. Only the Confessing Church offered a way to express any dissatisfaction with the Nazis. The Catholic Church had signed the Concordat in July 1933 and German Christians were Nazi supporters on the Protestant side.

Informers in blocks of flats watched the people. The Gestapo kept files on people. The SA would beat up people who did not conform. They would stand outside shops and intimidate and threaten you if you tried to go past them. People disappeared in the night when they were arrested and this created a climate of fear. Opposing the Nazis carried a high price. Some of the Edelweiss Pirates were hanged in 1944. Nobody knew who to trust. It was hard to know what they could do to resist the Nazis because they had such widespread support. Young people informed on their parents and teachers. Young people who were targeted by the Nazis through the HJ objected to the discipline of the Nazis and the desire to be different.

Germany did appear to be regaining some of its strength and influence. Some people thought that was worth paying the price for some of the less pleasant features of the Nazi system such as the treatment of the Jews. It was only by 1938 when *Kristallnacht* happened was it obvious to all Germany what was happening to the Jews and by then it would have been almost suicidal to rebel against the Nazis. The Nazis concealed some of their actions, so it was hard to resist.

It was hard for Germans to resist and oppose the Nazis because they did not know who to trust or how to resist. The Nazis made it clear that resistance and opposition would be strictly dealt with. If anyone needed a better lesson then they only had to look at how Hitler dealt with dissent in the party’s own ranks on the Night of the Long Knives in 1934.

**3.5 German economy and society 1: How much change did the Nazis bring to German society?**

**Exam practice (page 110)**

**1 How useful is Source E for understanding family life under the Nazis? Explain your answer using Source E and your own knowledge. *(8 marks)***

Source E is very useful because it sums up and expresses all the important ideas that the Nazis had about women, children and the family as they wished the family to be in the Third Reich. Source E shows a typical Aryan family: they all have blond hair and blue eyes. They are living in the countryside and are pictured with produce around them. This is the ‘Blut und Boden’ idea that the Aryans have their true roots in the German peasant stock. The Nazis thought one of the main functions of the family was for producing children; the picture shows this as the family have three children and a new baby, which is in the centre of the picture – this celebrates childbearing. The rustic beam points down to the centre of the picture where the baby is. The message is that families and women are for increasing the population and having babies. The countryside is where, according to Goebbels, ‘the true Germans lived, not in the towns’. The source is useful because it shows that the Nazis wanted everyone to see this image of an ideal family. They would promote this; it is their propaganda and shows a happy family who are well fed. This is how families should and would be under the Nazis. The Nazis controlled the art galleries and press and this is an example of what they approved of. It is not modern art or abstract. They are farming stock and this image conformed to Hitler’s view about art being understood by the masses.

**3.6 German economy and society 2: How successful were the Nazis in rebuilding the German economy**

**Exam practice (page 114)**

**1 Using Source F and your own knowledge, explain how the Nazis changed workers’ lives. *(8 marks)***

Workers’ lives changed because of the KdF programme. Many workers liked the Strength through Joy programme because, as SourceF shows, one of the things it offered was the chance to save for a new Volkswagen car (but none were ever delivered). Workers in industries that made weapons were given lots of overtime and therefore more pay. Workers who produced consumer goods were less well-off and they would not have liked the fall in their pay.

Some young famers left the farm for the city. Older farmers remembered the time when they could sell produce for any price, not the fixed ones that the Nazis introduced. However, they liked the security of the Entailed Farm Law, although it was more difficult to borrow money to improve their farms. As the Nazis continued with and strengthened the Labour Service, which meant you had to work, many workers’ lives changed and they might have been upset by this.

Arbeitdienst was often punishing and difficult work. Many of the unemployed were forced to do this work did not enjoy it. But if you had been unemployed then workers might have enjoyed measures taken to give them a job. Labour Service projects like the autobahns made a difference, but the work was very hard. The Nazis took the Jews out of the unemployment figures and encouraged women to give up paid work, which created jobs for men. So women might have been unhappy at the change in their lives. The Nazis had to relax this policy after 1938 as they needed women to work in the factories.

The army took in lots of men. Rearmament also led to more jobs being created in industry. They did not satisfy the German workers with better wages or a higher standard of living. Some industrial workers in defence industries did see wages improve. For the majority of Germans they would be pleased with a job if they did not have one but perhaps disappointed if their hours went up and their pay went down. The KdF would not compensate for this. It tended to be the larger businesses that did well under the Nazis. Smaller middle-class businesses had hard times.

**Exam practice (page 115)**

**2b Using Source G and your own knowledge explain how the war affected German civilians. *(8 marks)***

Source G shows the bomb damage that affected the lives of ordinary people in Germany. The bombs killed and injured civilians. Many of them had to be rescued and taken to hospital where there was a shortage of doctors because of the war. In February 1945 nearly 150,000 people were killed over two nights in Dresden. The people who survived were often made homeless and needed somewhere to live. Many would move away to stay with relatives but this movement was difficult in itself. The destruction of the buildings blocked roads and made the movement of people and food difficult. Food and clothing would be in short supply and rationing was introduced so everyone got a little and it was fair. In 1941 the meat ration was reduced from 500 grams a week to 300 grams. The debris from bombings had to be cleared away. As most of the men were fighting, as you can see in the picture, women had to work to remove the rubble and they had to do it by hand. The bombing destroyed water mains, electricity and gas pipes, causing flooding, fires and the danger of disease. From 1943 the Russian armies were advancing and the Germans retreating; women had to do more work in the factories. This might have been a propaganda picture to show everyone was helping; however, by 1944 it was clear that Germany would lose the war.

**3.7 Youth and race 1: How successful were the Nazis in influencing young people?**

**Exam practice (page 117)**

**Why were young people important to the Nazis? *(4 marks)***

1 Young people were important because they were the future and Hitler was building for the future. Young people joined the Hitler Youth (HJ). They could be a part of the Germany Hitler was building for them. Young people were easier to influence than adults who had experiences to set against Nazi propaganda. Young people could be trained in military skills and would form the army and young girls were important because they had to be the mothers of future generations of Aryans.

**2 Use Source F and your own knowledge to explain how the Nazis tried to influence young people? *(8 marks)***

Source F shows that the Nazis wanted young people to hate the Jews. The source shows how the Jews were different and how to behave towards them. They would be influenced and educated in these ideas. The school curriculum was used for influence and designed to concentrate on those subjects that the Nazis thought were important, such as maths, German history, science and PE. The girls were given lessons in PE so they were physically healthy to have children and taught cooking and running a home. Teachers influenced young people. Those teachers who failed to join the Nazi Teachers’ League and demonstrate Nazi ideas were dismissed. They had a youth movement for young children, the German Young People (DJ), and the League of Young Gilrs (JM), but from 14 the boys went into the Hitler Youth (HJ) and the girls into the League of German Girls (BDM). The Nazis appealed to the competitive instincts of young people. They provided lots of outdoor and physical activities. They gave young people a uniform and made them feel important. The Nazis passed two laws, the first in 1936 and the second in 1939; the second made it compulsory to join the youth movements. The Nazis had closed down rival youth movements such as those of the Roman Catholic Church so there was no alternative.

**3.9 Culture and propaganda: How did the Nazis change the cultural climate of Weimar Germany?**

**Exam practice (page 122)**

**1 Using Source F and your own knowledge, explain how art and culture in Germany changed under the Nazis. *(8 marks)***

Source F shows how art changed under the Nazis. The Nazis had been in power for five years when it was painted and it shows all the values that they expected from art. The painting is clearly understandable and not abstract, unlike art from the 1920s, which was dismissed by the Nazis as decadent and not Germanic. It could be understood by the ordinary German. It celebrates an important event in the rise of the Nazis and they would expect it to be remembered through art like this during the Thousand Year Reich. It shows the triumphal march after Hitler was made Chancellor on 30 January 1933 and it shows the Nazis as powerful, heroic and dynamic. It is not only in art that cultural life changed. Other areas of culture had to reflect the same values as art. Music had to be inspiring and patriotic: martial rhythms were preferred. Composers who were Jewish were outlawed, like Mahler and Mendelssohn, and popular American-influenced jazz music was banned because it was ‘Negroid’ and inferior. Any Weimar music that was abstract or avant-garde, such as that of Schoenberg, was banned for both its content and the Jewish origins of its composer. The pattern of destroying art was disapproved of, and celebrating Aryan, Germanic art, which showed the values the Nazis approved of, was followed in literature with the burning of books in 1933.