



GCSE MARKING SCHEME

SUMMER 2023

GCSE

HISTORY

UNIT 3: THEMATIC STUDY

**3B. CHANGES IN HEALTH AND MEDICINE,
c.1340 TO THE PRESENT DAY
3100UK0-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2023 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

UNIT 3: THEMATIC STUDY

3B. CHANGES IN HEALTH AND MEDICINE, c.1340 TO THE PRESENT DAY

SUMMER 2023 MARK SCHEME

Instructions for examiners of GCSE History when applying the mark scheme

Positive marking

It should be remembered that learners are writing under examination conditions and credit should be given for what the learner writes, rather than adopting the approach of penalising him/her for any omissions. It should be possible for a very good response to achieve full marks and a very poor one to achieve zero marks. Marks should not be deducted for a less than perfect answer if it satisfies the criteria of the mark scheme.

GCSE History mark schemes are presented in a common format as shown below:

This section indicates the assessment objective(s) targeted in the question.

Mark allocation:	AO1	AO2	AO3	AO4
6	6			

Question: e.g. **Describe the various methods used by people in the 1340s to prevent/avoid the Black Death.** [6]

This is the question and its mark tariff.

Band descriptors and mark allocations

AO1 6 marks		
BAND 3	Demonstrates detailed knowledge to fully describe the issue set within the appropriate historical context.	4-6
BAND 2	Demonstrates knowledge to partially describes the issue.	3-4
BAND 1	Demonstrates limited knowledge to describe the issue.	1-2

Use 0 for incorrect or irrelevant answers.

This section contains the band descriptors which explain the principles that must be applied when marking each question. The examiner must apply this when applying the marking scheme to the response. The descriptor for the band provides a description of the performance level for that band. The band descriptor is aligned with the Assessment Objective(s) targeted in the question.

Indicative content

This content is not prescriptive and candidates are not expected to refer to all the material identified below. Some of the issues to consider are:

- *The Black Death proved a particular challenge to medical professionals, who were unable to explain its cause. There was a whole range of ideas about how to avoid the plague;*
- *the Church taught that it was a punishment from God. People were told to go in procession to the local church and pray for forgiveness. Some took this advice to extremes and became flagellants;*
- *doctors suggested a variety of preventive measures, which were often contradictory. Some told their patients that washing would keep you clean while others said that bathing would open the pores and allow the disease to enter the body. Some told their patients that bleeding would help as it would release evil spirits. Abstaining from sex, bathing in urine or drinking urine/vinegar were also suggested;*
- *people believed that the plague was caused by miasmas (bad smells/air). They thought keeping all doors and shutters closed and lighting fires would keep miasmas away. Many also used herbs to try to counteract miasmas;*
- *some suggested killing cats and dogs as it was thought they spread plague. In London, Edward III ordered the streets to be cleaned of filth, stating that the smell spread the plague;*
- *the houses of plague victims had a red cross painted on them. This acted as a warning to others and so could have reduced the spread of the disease.*

This section contains indicative content (see below under banded mark schemes Stage 2). It may be that the indicative content will be amended at the examiner's conference after actual scripts have been read. The indicative content is not prescriptive and includes some of the points a candidate might include in their response.

Banded mark schemes

Banded mark schemes are divided so that each band has a relevant descriptor. The descriptor for the band provides a description of the performance level for that band. Each band contains marks. Examiners should first read and annotate a learner's answer to pick out the evidence that is being assessed in that question. Once the annotation is complete, the mark scheme can be applied. This is done as a two-stage process.

Banded mark schemes Stage 1 – Deciding on the band

When deciding on a band, the answer should be viewed holistically. Beginning at the lowest band, examiners should look at the learner's answer and check whether it matches the descriptor for that band. Examiners should look at the descriptor for that band and see if it matches the qualities shown in the learner's answer. If the descriptor at the lowest band is satisfied, examiners should move up to the next band and repeat this process for each band until the descriptor matches the answer.

If an answer covers different aspects of different bands within the mark scheme, a 'best fit' approach should be adopted to decide on the band and then the learner's response should be used to decide on the mark within the band. For instance, if a response is mainly in band 2 but with a limited amount of band 3 content, the answer would be placed in band 2, but the mark awarded would be close to the top of band 2 as a result of the band 3 content. Examiners should not seek to mark learners down as a result of small omissions in minor areas of an answer.

Banded mark schemes Stage 2 – Deciding on the mark

Once the band has been decided, examiners can then assign a mark. During standardising (marking conference), detailed advice from the Principal Examiner on the qualities of each mark band will be given. Examiners will then receive examples of answers in each mark band that have been awarded a mark by the Principal Examiner. Examiners should mark the examples and compare their marks with those of the Principal Examiner.

When marking, examiners can use these examples to decide whether a learner's response is of a superior, inferior or comparable standard to the example. Examiners are reminded of the need to revisit the answer as they apply the mark scheme in order to confirm that the band and the mark allocated is appropriate to the response provided.

Indicative content is also provided for banded mark schemes. Indicative content is not exhaustive, and any other valid points must be credited. In order to reach the highest bands of the mark scheme a learner need not cover all of the points mentioned in the indicative content but must meet the requirements of the highest mark band.

Where a response is not creditworthy, that is contains nothing of any significance to the mark scheme, or where no response has been provided, no marks should be awarded.

UNIT 3: THEMATIC STUDY

3B. CHANGES IN HEALTH AND MEDICINE c.1340 TO THE PRESENT DAY

Question 1

<i>Mark allocation:</i>	AO1	AO2	AO3	AO4
4	4			

Award one mark for each correct response:

- a. *blood*
- b. *Edwin Chadwick*
- c. *Florence Nightingale*
- d. *Marie Curie*

Question 2

Mark allocation:	AO1	AO2	AO3	AO4
4		2	2	

Question: Use Sources A, B and C to identify one similarity and one difference in developments in public health over time. [4]

Band descriptors and mark allocations

	AO2 2 marks		AO3 2 marks	
BAND 2	Identifies clearly one similarity and one difference.	2	Uses the sources to identify both similarity and difference.	2
BAND 1	Identifies either one similarity or one difference.	1	Uses the sources to identify either similarity or difference	1

Use 0 for incorrect or irrelevant answers.

Indicative content

This content is not prescriptive and candidates are not expected to refer to all the material identified below. Some of the issues to consider are:

Similarities – A and B show sewage disposal/sewage being removed; B and C show councils taking responsibility for public health/removing waste/rubbish; A and C show teams of men removing waste/rubbish; A and C show waste/rubbish being removed above ground/from houses and streets.

Differences – In A (and C) waste/rubbish is being removed above ground, but in B it is being removed below ground/in a sewer; A shows waste/rubbish being removed in carts, but in C it is being removed by a bin lorry; in A (and B) the workers are in normal clothing, but in C they are wearing protective clothing; A shows a private company removing waste, but B (and C) shows councils doing the work; A (and B) show manual removal of waste, but in C it is more mechanised.

Question 3

Mark allocation:	AO1	AO2	AO3	AO4
6	6			

Question: **Describe the various methods used by people in the 1340s to avoid the Black Death.** [6]

Band descriptors and mark allocations

	AO1 6 marks	
BAND 3	Demonstrates detailed knowledge to fully describe the issue set within the appropriate historical context.	5-6
BAND 2	Demonstrates knowledge to partially describe the issue.	3-4
BAND 1	Demonstrates limited knowledge to describe the issue.	1-2

Use 0 for incorrect or irrelevant answers.

Indicative content

This content is not prescriptive and candidates are not expected to refer to all the material identified below. Some of the issues to consider are:

- *the Black Death proved a particular challenge to medical professionals, who were unable to explain its cause. There was a whole range of ideas about how to avoid the plague;*
- *the Church taught that it was a punishment from God. People were told to go in procession to the local church and pray for forgiveness. Some took this advice to extremes and became flagellants;*
- *doctors suggested a variety of preventive measures, which were often contradictory. Some told their patients that washing would keep you clean while others said that bathing would open the pores and allow the disease to enter the body. Some told their patients that bleeding would help as it would release evil spirits. Abstaining from sex, bathing in urine or drinking urine/vinegar were also suggested;*
- *people believed that the plague was caused by miasmas (bad smells/air). They thought keeping all doors and shutters closed and lighting fires would keep miasmas away. Many also used herbs to try to counteract miasmas;*
- *some suggested killing cats and dogs as it was thought they spread plague. In London, Edward III ordered the streets to be cleaned of filth, stating that the smell spread the plague;*
- *the houses of plague victims had a red cross painted on them. This acted as a warning to others and so could have reduced the spread of the disease.*

Question 4

Mark allocation:	AO1	AO2	AO3	AO4
6	6			

Question: **Describe the improvements in public health in Cardiff in the late nineteenth century.** [6]

Band descriptors and mark allocations

	AO1 6 marks	
BAND 3	Demonstrates detailed knowledge to fully describe the issue set within the appropriate historical context.	5-6
BAND 2	Demonstrates knowledge to partially describe the issue.	3-4
BAND 1	Demonstrates limited knowledge to describe the issue.	1-2

Use 0 for incorrect or irrelevant answers.

Indicative content

This content is not prescriptive and candidates are not expected to refer to all the material identified below. Some of the issues to consider are:

- *outbreaks of typhoid (1847) and cholera (1849) in Cardiff led to demands from its inhabitants for improvements in public health in the city. The Rammell Report (1850) highlighted the problems, for example poor water supply, lack of sewers and poor housing, and recommended changes;*
- *using the powers granted by the Public Health Act, 1848, Cardiff Corporation (town council) set up its local Health Board. It appointed Dr Henry James Paine as Medical Officer of Health for Cardiff in 1853 (a position he held for over 40 years);*
- *Paine helped drive through a number of improvements – he worked with Cardiff Waterworks Company to provide clean water; he pushed for a new sewage system (to reduce the threat from cholera); he converted HMS Hamadryad into a hospital ship to isolate and treat sailors with infectious disease; he inoculated people against smallpox; and he had by-laws passed to stop rubbish being tipped into the River Taff;*
- *Cardiff Corporation also contributed to the improvements. The Sanitary Act, 1866 made councils responsible for sewers, street cleaning and water supply; in 1879 the Corporation took control of the water supply from the waterworks company; new reservoirs were built in the 1880s; a new hospital was opened in 1883 (enlarged in 1894), which became known as the Cardiff Infirmary; public baths were provided so that poorer inhabitants could afford to bathe; new cemeteries were created on the edge of town;*
- *The Public Health Act, 1875 made public health the responsibility of local councils. By this time, however, Cardiff had made many improvements independently. By the end of the century the death rate in Cardiff had fallen considerably, with its infant mortality rate one of the lowest for a town its size in the UK.*

Question 5

Mark allocation:	AO1	AO2	AO3	AO4
12	2	10		

Question: **Explain why the work of James Simpson and Joseph Lister was important in the treatment of illness and disease in the nineteenth century.** [12]

Band descriptors and mark allocations

	AO1 2 marks		AO2 10 marks	
			BAND 4 Fully explains the issue with clear focus set within the appropriate historical context.	9-10
			BAND 3 Explains the issue set within the appropriate historical context.	6-8
BAND 2	Demonstrates detailed knowledge and understanding of the key features in the question.	2	BAND 2 Partially explains the issue with some reference to the appropriate historical context.	4-5
BAND 1	Demonstrates some knowledge and understanding of the key features in the question.	1	BAND 1 Mostly descriptive response with limited explanation of the issue.	1-3

Use 0 for incorrect or irrelevant answers.

Indicative content

This content is not prescriptive and candidates are not expected to refer to all the material identified below. Some of the issues to consider are:

- *in the nineteenth century Simpson and Lister introduced major changes to surgery, greatly increasing survival rates;*
- *before their discoveries patients remained conscious during operations. Speed was essential to minimise blood loss, pain and shock. Even if a patient survived there was a serious risk of infection (in some hospitals, infection killed nine out of ten patients);*
- *in the early nineteenth century, scientists began to experiment with anaesthetics (laughing gas, then ether) to put the patient to sleep. However, in 1847, James Simpson first used chloroform successfully, (having tried different doses on himself and two doctor friends until they were unconscious). He first used it to help women in labour, but it was soon also being used for operations. Though there were some initial problems with dosage, it was quickly obvious that it was the most reliable and long-lasting anaesthetic, giving surgeons more time when operating;*
- *ironically the use of chloroform initially led to the 'black period of surgery', when the death rate actually went up. However, this was not because of chloroform but because surgeons were now attempting more difficult invasive surgery, and so patients were more likely to die from blood loss or from infections. Nevertheless, chloroform was a major breakthrough and surgery improved over time, especially after John Snow invented an inhaler to regulate the dosage;*

- *the second breakthrough came in 1867 when Joseph Lister discovered that carbolic spray was very effective in stopping wounds from developing gangrene. He pioneered antiseptic surgery by spraying medical instruments, catgut and bandages with carbolic acid. Though many surgeons claimed that Lister's antiseptic methods slowed things, at a time when speed was still essential, it was soon obvious that Lister's methods were a success. In just three years, he reduced the death rate among his patients from 46% to 15%. In the 1880s, appendectomies were being carried out and in 1896, surgeons did the first major cardiac surgery when they repaired a heart damaged by a stab wound;*
- *together with other developments in the latter part of the nineteenth century (acceptance of Pasteur's germ theory, Florence Nightingale's reforms, aseptic surgery), surgery became much safer as the death rate during and after surgery declined considerably as a result of the work of Simpson and Lister. The one remaining major problem, blood loss, was overcome in the early twentieth century.*

Question 6

Mark allocation:	AO1	AO2	AO3	AO4
12	2	10		

Question: **How significant was the creation of the National Health Service (NHS) in improving patient care and people's health in the twentieth century? [12]**

Band descriptors and mark allocations

	AO1 2 marks		AO2 10 marks	
			BAND 4	Fully explains the significance of the issue with clear focus set within the appropriate historical context. 9-10
			BAND 3	Explains the significance of the issue set within the appropriate historical context. 6-8
BAND 2	Demonstrates detailed knowledge and understanding of the key features in the question. 2		BAND 2	Partially explains the significance of the issue with some reference to the appropriate historical context. 4-5
BAND 1	Demonstrates some knowledge and understanding of the key features in the question. 1		BAND 1	Mostly descriptive response with limited explanation of the significance of the issue. 1-3

Use 0 for incorrect or irrelevant answers.

Indicative content

This content is not prescriptive and candidates are not expected to refer to all the material identified below. Some of the issues to consider are:

- *the creation of the NHS marked a significant milestone in improving patient care/public health;*
- *before the NHS was created, healthcare in the UK was fragmented and patchy. Working men were covered by the National Insurance Scheme and received sickness benefits and free medical care if they were ill. However, their wives and children were not covered. There were also private insurance schemes and hospitals and some councils also ran hospitals. People in many poorer areas of the UK, therefore, had limited access to healthcare, particularly during the Depression;*
- *in 1946, following the recommendations of the Beveridge Report, the Labour government passed the National Health Service Act. The Minister for Health, Aneurin Bevan, worked hard to overcome opposition from the British Medical Association and other doctors, private hospitals and many Conservative MP,s who argued that it would cost too much;*
- *in spite of all opposition, the National Health Service came into being on 5 July 1948. using money from taxes to meet the cost. In terms of healthcare, the NHS completely restructured Britain's health system. It provided free medical treatment for all British citizens, the nationalisation of hospitals under the Ministry of Health, the creation of regional health authorities, a better distribution of medical facilities around the country with GPs, opticians and dentists in every area, and the creation of health centres to provide services such as vaccinations, maternity care and district nurses;*

- *the NHS has made a significant contribution to the quality of patient care and to improving people's health, with healthcare became accessible to all members of the public. In doing so, it has helped raise life expectancy in Britain; played a major part in reducing child mortality and maternal mortality, encouraged major medical breakthroughs in many areas, for example cancer treatment, provided a wide range of new services such as those for cancer screening and asthma clinics. There has also been an increasing emphasis on preventive medicine, for example mass vaccination against a variety of illnesses, and health campaigns such as those aimed at reducing tobacco usage;*
- *however, its successes, particularly in raising life expectancy, have also helped to create new problems. From its very start in 1948 the cost of providing care has increased, putting pressure on NHS budgets. The NHS is no longer completely free. As early as 1952 prescription charges were introduced. Since then charges have been introduced on other services such as eye tests and dental treatment. As life expectancy has increased so an ageing population has put greater pressure on its services.*

Question 7

<i>Mark allocation:</i>	AO1	AO2	AO3	AO4	SPaG
20	6	10			4

Question: **To what extent has medical knowledge consistently improved over time?** **[16+4]**

Band descriptors and mark allocations

	AO1 6 marks		AO2 10 marks	
BAND 4	Demonstrates very detailed knowledge and understanding of the key issue in the question including clear and detailed references to the Welsh context.	5-6	Fully analyses the importance of the key issue. There will be a clear analysis of the extent of change set within the appropriate historical context.	8-10
BAND 3	Demonstrates detailed knowledge and understanding of the key issue in the question including clear references to the Welsh context.	3-4	Partially analyses the key issue along with a consideration of the extent of change in the historical context.	5-7
BAND 2	Demonstrates some knowledge and understanding of the key issue in the question.	2	Basic analysis while considering the extent of change.	3-4
BAND 1	Generalised answer displaying basic knowledge and understanding of the key issue in the question.	1	Offers a generalised response with little analysis of the extent of change.	1-2

Use 0 for incorrect or irrelevant answers.

This question requires candidates to draw upon the Welsh context in their responses. This is assessed in AO1 and candidates who do not draw upon the Welsh context cannot be awarded band 3 or band 4 marks for this assessment objective. Candidates who do not draw upon the Welsh context may, however, be awarded band 3 or band 4 marks for AO2, for an appropriately detailed analysis of the key issue.

Indicative content

This content is not prescriptive and candidates are not expected to refer to all the material identified below. Some of the issues to consider are:

- *medical ideas in the Middle Ages were still heavily influenced by the ancient Greeks, particularly Hippocrates and Galen. At the heart of their medical knowledge was the theory of the four humours, which needed to be kept in balance if a person wanted to remain healthy. Although Galen was not a Christian he was accepted by the Church. So to question Galen was to challenge the Church's teachings, and this hindered any progress in medical knowledge. The Church forbade dissection of corpses and discouraged experiments (Roger Bacon, for example, was imprisoned for suggesting doctors do their own research);*
- *in some ways, during the medieval period medical knowledge went into reverse. Doctors believed that the movement of the stars affected people's health and would often use astrology and consult Zodiac charts before treating a patient. However, the Church did encourage people to go on Crusade, during which the superior medical knowledge of the Muslim world became available to doctors in Europe;*
- *The Renaissance of the sixteenth and seventeenth centuries brought advances in medical knowledge. As the influence of the Catholic Church was loosened so people began to investigate for themselves. Some challenged the traditional knowledge of Galen and Hippocrates and instead adopted a more modern, scientific approach – experimenting, observing and recording results;*
- *Andreas Vesalius defied the Church and carried out dissections to produce new studies of the human anatomy. Ambroise Paré devised new ways to treat wounds, based on his observations. William Harvey disproved Galen's teaching that the liver produced blood. By experimentation he showed that the heart was a pump which sent blood around the circulatory system. All three benefited from the support of those in power. All three also produced books which, thanks to the invention of the printing press, circulated their ideas more rapidly than ever. However, though these were important improvements in knowledge, arguably they had little practical impact in improving people's lives. For example, the first heart surgery did not happen until the 1890s, and as late as the early nineteenth century doctors were still basing treatment on the four humours and bleeding patients with leeches;*
- *the eighteenth and early nineteenth centuries saw little further improvement in medical knowledge. It was not until Pasteur presented his germ theory (1861) that the next and arguably most important breakthrough came. This proved the link between germs and disease. In Germany, Robert Koch applied Pasteur's ideas to human diseases. In doing so, he created the science of bacteriology. He identified the bacteria which caused anthrax (1875), TB (1882) and cholera (1883). Koch was very thorough. He repeated experiments to ensure that his research was valid. He also developed a medium for growing bacteria and a way of staining them so that they could be observed more easily. In the 1880s and 1890s governments began to fund scientific research and rapid progress was made in identifying the bacteria that caused disease and in developing vaccines;*
- *candidates may note that Pasteur and Koch led teams of scientists, and Emil von Behring, one of Koch's team, discovered anti-toxins and, with Emile Roux, an associate of Pasteur, used them to develop a vaccine for diphtheria. Paul Ehrlich, a student of Koch, produced the drug Salvarsan 606 to treat syphilis. This was the first of what came to be known as "silver bullets", that is, drugs designed to target specific germs;*
- *medical knowledge improved considerably during the twentieth century. The development of X-rays by Wilhelm Röntgen allowed doctors to see inside the human body for the first time without having to operate. Thousands of lives were saved as surgeons were able to operate more accurately. The X-ray and later developments in scanning (ultrasound, MRI and PET scans) are now used routinely in hospitals. The detailed images of bones, organs and tissue they produce have revolutionised medical knowledge, particularly over the last 30 years. They are non-invasive, but enable doctors to identify diseases earlier and so improve chances of survival;*

- *since the Second World War there have been huge advances in genetics. In the 1950s Francis Crick and James Watson produced a 3D model of DNA to explain how it replicates and how it carries genetic information in humans. This opened the way for the rapid advances in molecular biology. At the end of the twentieth century scientists from across the world began the Human Genome Project (HGP). It showed the importance of collaboration in advancing medical knowledge. Its aim was to work out the sequence of all the three billion base pairs in the human genome and to identify all the genes. The first part has been completed and scientists are now working on the second. Scientists hope that, by modifying DNA it is possible that genetic diseases can be eliminated. DNA can be used to screen people for genetic diseases such as breast cancer. It has also been used to reverse mutations that cause blindness, to stop cancer cells from multiplying and make some cells resistant to AIDS;*
- *to access AO1 Bands 3 and 4 candidates will need to make reference to the Welsh context, for example the medieval medical knowledge set down in Llyfr Coch Hergest (the Red Book of Hergest) or traditional knowledge and treatments used by the dynion hysbys transferred down the generations; the work of the Thomas family in improving knowledge in orthopaedics – Hugh Owen Thomas and the “Thomas” splint and Sir Robert Thomas; Dr JW Power, the Medical Officer for Health in Ebbw Vale, and his role in setting up courses in bacteriology in King’s College, London; the work of Sir Martin Evans in Cardiff University in the late twentieth century in stem cell research and the use of gene targeting to create new treatments for genetic diseases.*

After awarding a band and a mark for the response, apply the performance descriptors for spelling, punctuation and the accurate use of grammar (SPaG) and specialist language that follow.

In applying these performance descriptors:

- learners may only receive SPaG marks for responses that are in the context of the demands of the question; that is, where learners have made a genuine attempt to answer the question
- the allocation of SPaG marks should take into account the level of the qualification.

Band	Marks	Performance descriptions
<i>High</i>	4	<ul style="list-style-type: none"> • Learners spell and punctuate with consistent accuracy • Learners use rules of grammar with effective control of meaning overall • Learners use a wide range of specialist terms as appropriate
<i>Intermediate</i>	2-3	<ul style="list-style-type: none"> • Learners spell and punctuate with considerable accuracy • Learners use rules of grammar with general control of meaning overall • Learners use a good range of specialist terms as appropriate
<i>Threshold</i>	1	<ul style="list-style-type: none"> • Learners spell and punctuate with reasonable accuracy • Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall • Learners use a limited range of specialist terms as appropriate
	0	<ul style="list-style-type: none"> • The learner writes nothing • The learner's response does not relate to the question • The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning