# Scheme of work

**Introduction**

## 2AA Britain: Health and the people, c1000 to the present day

This resource gives you one example of a scheme of work for teaching the Britain: Health and the people thematic studies topic from our GCSE History specification (8145). It is intended as a guide only and not as a prescriptive approach.

At AQA we are committed to increasing the number of diverse voices within our materials. Working with subject experts we have reviewed our existing resources and made some changes. These changes will support our customers in delivering our current specifications in a way that maximises opportunities for breadth, diversity and inclusivity in the curriculum as well as improve the accessibility of our resources.

* This scheme of work enables students to understand how medicine and public health developed in Britain over a long period of time by focusing on the development of the fight against infectious disease, changes to surgery and anatomy and the development of public health and the welfare of the population. Students will focus on the main change factors: war, religion, government, science and technology, the role of the individual, chance, communication and how they worked together. Students will develop an understanding of the causes, consequences, and significance of change, as well as the resulting progress.

This scheme of learning follows a chronological approach to teaching ‘Britain, Health and the People’ from part 1 in sequence to part 4. Please note that this unit can also be taught successfully by following a thematic approach, through three mini enquiries on the fight against infectious disease, the development of surgery and anatomy and the changing state of public health. The relating factors will be considered as and when they arise throughout the course.

**Assumed coverage**

This scheme of work is intended for 30 one-hour classroom lessons, each of one hour. It doesn’t include homework learning time, but does include revision and assessment lessons. As we realise that time is precious, the resources are all highlighted to allow you to see whether they are to be read, watched, or listened to and have assumed timings.

**Assessment**

Assessment points in the learning activity section indicate possible assessment opportunities. These could be short tests of about ten minutes (exam- style questions, short factual tests, source evaluation) or longer assessments (exam-style questions).

**Resources**

Research exercises assume students have access to a textbook(s) and/or the internet. You can supplement a textbook(s) by other sources. When considering primary and secondary evidence, remember that the exam paper (Question 1) tests students’ ability to analyse and evaluate contemporary sources (AO3). A range of contemporary sources might include paintings, cartoons, photographs, posters, newspaper accounts, eye-witness descriptions and official documents.

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**Lesson 1**

**Topic**

The history of medicine

**Specification content**

* Course overview

**Learning outcomes**

* Students will learn all the main features of the course in a one lesson overview. The aim of this lesson should be to compose a chronological timeline of all the important features of the rest of the course, whilst considered the interlinking core themes of disease, surgery and anatomy and public health.
* The complete timeline serves as a reference point and revision aid as the course progresses.

**Possible teaching and learning activities**

* Produce a timeline.
* Give students a set of visual/contemporary sources from across the course. Students to arrange in chronological order.
* Now give students contextual information cards. Students to match to the visual/contemporary source. Using the dates students to correct their initial timeline.
* Now ask students to arrange into three piles, each relating to corresponding theme: disease and infection, surgery and anatomy, public health.
* Finally, students can annotate events onto their own timeline, using highlighters to identify the key themes.

**Resources**

* About 30 images or short text contemporary sources selected from the main textbook(s) or the internet.
* A3 paper, marked out with a timeline over 1,000 years, subdivided into four parts – medieval, early modern, 18th/19th centuries and modern.

**Part one: Medicine stands still**

**Lesson 2**

**Topic**

Where did medieval ideas come from?

**Specification content**

* Natural
* Supernatural
* Ideas of Hippocratic and Galenic methods and treatments

**Learning outcomes**

* The central focus of this lesson will be based around the enquiry question ‘Where did medieval ideas come from’?
* Although this course starts c.1000, students need to develop wider contextual understanding of ancient ideas and approaches to medicine (especially those of Hippocrates and Galen), and why they were still being following in the medieval world.
* Students should use the example of Galen and Hippocrates’ work to draw out ideas of natural and supernatural approaches to medicine.
* Consider the Theory of Four Humours. Students should know that it was a rational (evidence based) but erroneous approach; it has merit in not being based on superstition but became an orthodoxy that acted as a straitjacket on development.

**Possible teaching and learning activities**

* Spend some time using images/wider reading to discuss the wider context of the medieval world (who help power, structure of society, role of religion) to support students understanding of sense of time and place.
* Explain to students that medicine does not start c.1000. Could use images to discuss ideas of Egyptian, Tibetan, Chinese approaches to medicine in the ancient world.
* Introduce the students Hippocrates and Galen, focusing on who they are, their ideas about medicine their approaches. Students could produce a biography about each individual.
* There should be a focus on the Theory of the Four Humors. Students might draw a diagram and label it.
* Summary table explaining how Hippocrates and Galen helped/hindered medicine.

**Resources**

* Watch a video from [BBC Teach](https://www.bbc.co.uk/teach/class-clips-video/history-ks3-gcse-medieval-medicine/zbctscw) on Medieval Medicine which focuses on Hippocrates and Galen (5 minutes).
* Listen to a podcast from [You're Dead to Me on Ancient Greek and Roman Medicine](https://open.spotify.com/show/2dXkTgfC5mECruaLFUERe1) (27 minutes).
* Read a [World History Encyclopedia Article on Medicine in Ancient Mesopotamia](https://www.worldhistory.org/article/687/medicine-in-ancient-mesopotamia/). Ideal for wider contextual knowledge (15 minutes).
* Read an article from [National Library of Medicine on the Impact of the Four Humours on Shakespeare](https://www.nlm.nih.gov/exhibition/shakespeare-and-the-four-humors/index.html#homesummary) ideal considering the long term impact of Hippocratic and Galenic medicine (30 minutes).

**Medieval medicine and progress**

**Lesson 3**

**Topic**

What did contemporaries believe about disease and treatment?

**Specification content**

* Natural
* Supernatural
* Beliefs about the cause of illness
* Role of the medieval doctor

**Learning outcomes**

* The focus of this lesson should be on medieval beliefs about treating illness, and the resulting approaches taken by medieval practitioners. The key question is ‘What did contemporaries believe about disease, and how did they try to treat it?’
* Students should consider both natural and supernatural beliefs to illness and disease although in the medieval context they should recognize the influence of religion, astrology and superstition relating to medical knowledge and practice.
* Students should also revisit some ideas and approaches of Hippocrates and Galen as natural approaches, alongside the idea of Miasma.

**Possible teaching and learning activities**

* Introduce students to medieval beliefs about, and approaches to treating disease (punishment from God, witchcraft, Miasma, recap of Four Humours, urine charts, the zodiac, ‘wise women’ apothecaries, bloodletting etc.).
* Categorise on the extent to which each idea/approach would help or hinder the development of medicine. Students could also categorise natural/supernatural approaches to further their understanding of progress.
* Opportunities may be used to engage students with visual sources related to this time period i.e., a medieval zodiac chart. Students could annotate the key features of the source and then their own knowledge to support it.
* Could complete a ‘Meanwhile, She…’ worksheet on Jacqueline Felice de Almenia.

**Resources**

* Watch a video from English Heritage on [Medieval Medicine 'In a Nutshell'](https://www.youtube.com/watch?v=fuEuaSmDOec) (3.51 minutes).
* Read an article from [Dr Alixe Bovey on Medicine in the Middle Ages](https://www.bl.uk/the-middle-ages/articles/medicine-diagnosis-and-treatment-in-the-middle-ages) through the British Library (15 minutes).
* Read an article about the [Trotula of Salerno](https://www.ucl.ac.uk/archaeology-south-east/news/2022/mar/international-womens-day-female-voice-medieval-medicine) on UCL website. Illuminating contributions to medicine by Trota of Salerno. Contribution of women to medieval medicine (10 minutes).
* Read an article on [Medieval Women as Physicians](https://www.wondersandmarvels.com/2012/08/medieval-women-as-physicians.html) Wonders and Marvels Site (15 minutes).

**Lesson 4**

**Topic**

Medieval surgery

**Specification content**

Surgery in medieval times, ideas and techniques

**Learning outcomes**

* The focus of the lesson should be on medieval ideas, and approaches to surgery. The lesson should follow the enquiry question ‘What surgical ideas and techniques were followed in the medieval era’?
* Students should learn about:
  + the role of barber surgeons and medieval techniques (diagnosis, trepanning, cauterisation etc.), medieval anesthetics and antiseptics, the treatment of wounds and the view of pus
  + the role of individuals such as Hugh and Theodoric of Lucca’s ideas about surgery and the textbooks Lucca wrote to explain their theories; British surgeons like John of Arderne and John Bradmore.

**Possible teaching and learning activities**

* Students could begin by annotating an image of ‘Wound Man’. This should facilitate a good discussion of the type of surgical injuries that would be sustained in medieval warfare, and thus the nature of injuries that medieval surgeons would have to deal with. A good opportunity to pull in the factor of warfare.
* Introduce students to medieval approaches to surgery, under the question ‘What could a medieval surgeon do?’
* Finish by discussing relevant individuals associated with medieval surgery (Hugh and Theodoric of Lucca etc.). Students could fill in a table documenting the work of each individual and how they contributed to surgery.

**Resources**

* Picture of Wound Man - also featured in [Medieval Bodies by historian Jack Hartnell](https://www.jackhartnell.com/).
* Read about medieval approaches and individuals on [BBC Bitesize](https://www.bbc.co.uk/bitesize/guides/z3xb3j6/revision/4).
* Watch [The Worst Jobs in History - The Barber Surgeon](https://www.youtube.com/watch?v=JVQO0a4mMWs&t=300s) on YouTube (9 minutes) .
* Read about [Medieval Women as Physicians](https://www.wondersandmarvels.com/2012/08/medieval-women-as-physicians.html) (15 minutes).
* Read an article about the [Trotula of Salerno](https://www.ucl.ac.uk/archaeology-south-east/news/2022/mar/international-womens-day-female-voice-medieval-medicine) on UCL website. Illuminating contributions to medicine by Trota of Salerno. Contribution of women to medieval medicine (10 minutes).

**Lesson 5**

**Topic**

The influence of Christianity and the role of the Church

**Specification content**

* The contribution of Christianity to medical progress and treatment
* The role of Church hospitals/monasteries
* Supernatural approaches
* Contribution to Public Health of monasteries

**Learning outcomes**

* The focus of this lesson should be based around the enquiry question ‘How significant was the role of Christianity in the development of medicine?’.
* Students should consider beliefs (for example, disease sent as a punishment from God, prayer as the best treatment) and approaches (focus on care, not cure) to medicine.
* Students should also consider the role of church hospitals and monasteries in providing care for the sick, including the role of nuns and monks.

**Possible teaching and learning activities**

* Students are given an image of a medieval hospital and are asked to annotate their copy things that would help/hinder progress. Develop annotation with teaching leading explanation.
* Create a flow chart to explain a e typical experience in a church hospital focusing on who was permitted, who would treat the sick, methods of treatment i.e., prayer, the positive effects of sanitation and use of herbs.
* Introduce students to the significance Q of the role of Christianity in terms of positive/negative impact, also short/long term.

**Resources**

* Picture of Hotel-Dieu of Paris.
* Read an article from [History Today on Medieval Hospitals in England](https://www.historytoday.com/archive/feature/medieval-hospitals-england) (15 minutes).
* Watch this [YouTube video on Medieval Church Hospitals](https://www.youtube.com/watch?v=jarJYPxV26w) (6 minutes).
* Read an article by William Minkowski [Women Healers of the Middle Ages](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1694293/pdf/amjph00539-0138.pdf) suited towards FPL for teachers. Focus on pg. 289-292.
* Read a webpage from [BBC Bitesize on Christianity and Medicine](https://www.bbc.co.uk/bitesize/guides/z3xb3j6/revision/2) (5 minutes) simple summary and more suited to revision purposes for students.

**Lesson 6**

**Topic**

The significance of Islamic medicine and surgery

**Specification content**

The nature and importance of Islamic medicine and surgery

**Learning outcomes**

Students should learn about:

* achievements of Islamic medicine
* new discoveries made by Islamic doctors
* Islamic approach to medicine, (for example, it was more evidence based)
* the preservation of Greek knowledge
* the introduction of pharmacy measures

**Possible teaching and learning activities**

* Introduce students to the Islamic Golden Age to set the wider context for the main focus of the lesson which should focus on the enquiry ‘Why was Islamic medical practice significant’?
* Many students believe that the Dark Ages was a complete time of medical regression, but for the Islamic world medical knowledge and practice thrived especially in cities such as Baghdad, Cairo and Isfahan.
* Introduce students to the preservation of the knowledge of classical antiquity, including Hippocrates and Galen.
* Introduce students to the medical advancements during the Islamic Golden Age including the building of hospitals, use of natural approaches including herbs and evidence-based treatments, importance of communication i.e. *Canon of Medicine*. Students could complete a Guided Reading sheet on this.
* Students should also study the significance of notable Islamic physicians including Al Razi (Rhazes), Al Zahrawi, Ibn Sina (Avicenna) and Ibn Nafis.
* Introduce the students to the idea of a similarity question, by comparing Christian and Islamic approaches to medicine.

**Resources**

* Read an article from [Medical News Today](https://www.medicalnewstoday.com/articles/323612#surgery) on the significance of Islamic medicine (12 minutes).
* Read an article on the work of Ibn Sina ([Avicenna](https://www.tandfonline.com/doi/full/10.1080/20009666.2020.1774301)) – Avicenna, famously hung meat in several locations around Baghdad to decide upon a location for a hospital. Where the meat was last to rot is where he picked the location for his hospital (20 minutes).
* Watch a video on the [Islamic Golden Age](https://www.youtube.com/watch?v=2FAWAbGDxGA&list=TLGGjdylxqUjTAgxNzA3MjAyMw&t=3s) on YouTube (29 minutes).
* Watch [1001 Inventions and The Library](https://www.youtube.com/watch?v=JZDe9DCx7Wk) [of Secrets](https://www.youtube.com/watch?v=JZDe9DCx7Wk) (12 minutes).
* Watch [Horrible Histories](https://www.youtube.com/watch?v=7MtwxC36HIU) video describing the approaches of an Islamic physician (2 minutes).

**Public health in the Middle Ages**

**Lesson 7**

**Topic**

Public Health in medieval towns and monasteries

**Specification content**

Towns and monasteries

**Learning outcomes**

* The focus of this lesson should be on the problem of Public Health in medieval towns with the exception of medieval monasteries. Students should learn about the quality of public health in towns and consider issues such as, towns’ laws not enforced and how incorrect contemporary beliefs exacerbated conditions etc.
* There is an opportunity to move students from description to reasons why there were differences between places and towns and monasteries.

**Possible teaching and learning activities**

* Quick knowledge retrieval.
* Display John D Clare (1997 textbook) illustration of a medieval town and ask students to identify any problems/public health offences they can see, and why these problems might exist.
* Introduce students to the problems of medieval towns, lack of consistent laws and approaches to public health. They could also consider some local measures which were introduce to improve matters (inc. bath houses, fines, muck rackers and gong farmers)
* An excellent opportunity here for students to compare an English medieval town to one of the Islamic cities such as Baghdad or Cairo.
* Students should consider why medieval monasteries were an exception to public health by looking at an account/experience of visiting a monastery.
* Collate conclusions as a class by drawing a table/Venn diagram to compare towns and monasteries/abbeys.

**Resources**

* Image of [medieval town](https://themiddleagesjpf.weebly.com/uploads/1/9/5/6/19564697/7411606_orig.jpg?442) (taken from John D Clare ‘*Medieval Towns’*).
* Read a revision page on the [Causes and Effects of Public Health in Monasteries](https://getrevising.co.uk/grids/why-was-medieval-public-health-better-in) (5 minutes).
* Read a revision page from [BBC Bitesize](https://www.bbc.co.uk/bitesize/guides/z9924qt/revision/1#:~:text=Most%20monasteries%20were%20on%20the,bath%20four%20times%20a%20year.) on attempts at improving Public Health in medieval towns.
* Read an article of [medieval hygiene](https://www.worldhistory.org/Medieval_Hygiene/) (10 minutes).

**Lesson 8**

**Topic**

The Black Death

**Specification content**

The Black Death in Britain: beliefs about its causes, treatment and prevention

**Learning outcomes**

* The focus of this lesson should centre around the enquiry question ‘What can the Black Death reveal about medieval medicine? and illuminate the wider knowledge studied by students so far.
* There should be a focus be on the causes of the Black Death, including contemporary beliefs and the reasons for these beliefs, in addition to the actual cause of the Black Death.
* There should also be a focus on the attempts of contemporaries to ‘cure’/treat the Black Death as well as preventative methods.
* Finally, there should be a consideration of the devastation of this pandemic, looking at the impact and destruction.
* There is a good opportunity for students to discuss both natural and supernatural/religious approaches.

**Possible teaching and learning activities**

* Explain to students the nature of the Black Death, by using an infographic to compare the destruction of this pandemic to other notable ones in history (especially COVID-19, 1665 Plague, AIDS, Influenza etc).
* Introduce students to contemporary beliefs, preventions and attempted ‘cures’ about the Black Death. Encourage students to discuss the reasons *why* people adopted these beliefs. Finally consider the impact of the Black Death including the demographic, societal and economic consequences.
* Opportunity to discuss the impact of the Black Death on women, using the resource below which discusses how it may have caused women to shrink.
* Students could then use their knowledge to fill in a graphic organizer/flow chart to demonstrate their understanding of the key features listed in the guidance column.
* Opportunity to introduce students to the source utility question.

**Resources**

* Read [BBC Bitesize](https://www.bbc.co.uk/bitesize/guides/z3xb3j6/revision/7) on the causes, preventions, and consequences. (5 minutes)
* Read about the causes and effects of the Black Death on [History.com](https://www.history.com/topics/middle-ages/black-death). (10 minutes)
* Read about the village of [Eyam - The Village that Stopped the Black Death](https://www.bbc.com/travel/article/20151026-the-sleepy-village-that-stopped-the-black-death). (5 minutes)
* Watch Lucy Worsley’s [How the Black Death Changed Britain - BBC iPlayer](https://www.bbc.co.uk/iplayer/episode/p0bvhk4g/lucy-worsley-investigates-series-1-2-the-black-death). (59 minutes)
* Explore this Forbes article on [How the Black Death caused Women to Shrink](https://www.forbes.com/sites/kristinakillgrove/2017/11/09/how-the-black-death-caused-medieval-women-to-shrink/?sh=6c5c2a871c3b).
* Read John Hatcher’s *The Black Death – The Intimate History of a Village in Crisis* – opportunities for tracking the development of the Black Death through the stories of real individuals.

**Review and assessment**

**Topic**

An assessment opportunity focused on the substantive and procedural knowledge needed for the examination paper

**Specification content**

Assessment: substantive and procedural knowledge (knowledge and skills)

**Learning outcomes**

* Students should complete a chronology-based knowledge retrieval quiz on substantive knowledge and concepts covered so far.
* Students could approach a Q1 ‘How useful’ question on the Black Death, which could be used to illuminate their wider understanding of medieval approaches to medicine, as well as the role of religion and the government as contributing factors.

**Part two: The beginnings of change**

**Lesson 9**

**Topic**

How the Renaissance influence medicine in Britain?

**Specification content**

The impact of the Renaissance in Britain

**Learning outcomes**

The initial focus of this unit should focus on developing a sense of period for students and therefore consider wider context of the Renaissance, centred around the enquiry question ‘Why did the Renaissance signal the start of change?’. This should include the revival of interest in learning, art, architecture, exploration, and inventions etc. Students should also understand the shift in authority away from the Church as thinkers begin to challenge church-based theories.

**Possible teaching and learning activities**

* Students could discuss and analyse the artwork of the Renaissance to make inferences about the changes into culture and values of Renaissance people including a renewed interest in the human body (in both an artistic as well as medical sense).
* They could compare this to the artwork of the medieval world to discuss how understanding about the body had developed and begin to consider why it had developed.
* Introduce students to some of the main contextual developments of the Renaissance to allow them to consider the impact of these on medical development, including the printing press, governments, exploration, invention of new weaponry and art. They could fill in a table to summarise these developments.
* Opportunity to use the resources to discuss the contributions of Black people in the development of the Renaissance.

**Resources**

* Read an article on [History.com](https://www.history.com/topics/renaissance/renaissance) about the wider context of the Renaissance.
* Read the review of the book ‘Black Africans in Renaissance Europe on [History Reviews](https://reviews.history.ac.uk/review/619). It offers some insightful stories about the contributions of black individuals during the Renaissance period.

**Improvements to surgery and anatomy**

**Lesson 10 and 11**

**Topic**

How did the work of Vesalius, Pare and Harvey improve understanding of surgery and anatomy?

**Specification content**

* Challenge to medical authority in anatomy, physiology, and surgery
* The work of Vesalius, Pare and Harvey
* Opposition to change

**Learning outcomes**

* This should be focused on the role of three individuals and their contribution towards improved understanding of anatomy and surgical techniques. The lesson should focus on the enquiry question ‘To what extent was surgical progress made in the Renaissance?’ This lesson provides an opportunity to look at the work of Vesalius, Paré and Harvey and to consider their significance. They can be seen as representatives of the Renaissance – students can evaluate how much of an impact their discoveries made in Britain e.g. through people like Geminus and Clowes.
* Place emphasis on the way that their books (*Fabric of the Human Body, Apology and The Motion of the Heart*) brought their knowledge to Britain and doctors from Britain and the rest of Europe went to universities in Italy and France to learn.
* The enquiry question also allows you to discuss the acceptance of their new discoveries/theories and therefore the extent to which progress was made, because of opposition.

**Possible teaching and learning activities**

* Introduce students to Vesalius, Pare and Harvey. There is a great opportunity for comparison work here, as well as consideration of significance, which fits into the assessment demands of Q2 and 3.
* The key factors to be stresses here are the Role of the Individual, Technology and Warfare. Aim to pull these threads out with students as the narrative unfolds.
* Students could complete an A3 sheet on the following. Students should consider the state of surgery/anatomy before their discoveries, what they discovered (methods characteristics and challenges), and finally their contribution to surgery and anatomy in the short term and long-term significance (impact on Britain).
* Opportunity to introduce Q2. How significant was…’

**Resources**

* Watch a video from [BBC Teach](https://www.bbc.co.uk/teach/class-clips-video/medical-pioneers-vesalius-pare-harvey/zrgmhbk) on Vesalius, Pare and Harvey.
* Read an article on the significance of [Andreas Vesalius 'Father of Anatomy'](https://www.cam.ac.uk/research/features/andreas-vesalius-1514-1564-and-the-books-that-made-the-father-of-anatomy).
* Read a PDF article on the work of [Ambroise Pare](https://www.facs.org/media/yokm5yq3/08_ambroise_pare.pdf) which includes the story of his replacement of cauterisation.
* Read an article on [National Geographic](https://www.nationalgeographic.com/history/history-magazine/article/history-william-harvey-medicine-heart) about how Harvey challenged Galenic beliefs about the circulation and the heart.

**Dealing with disease**

**Lesson 12**

**Topic**

How did ideas about disease and treatments change during the early modern period?

**Specification content**

* Traditional and new methods of treatment
* ‘Quackery’
* Methods of treating disease

**Learning outcomes**

* The focus of this lesson should be on the traditional approaches to treating disease during the Renaissance alongside the ‘new ideas’ and treatments available as a result of exploration. It should be focused on the concept of change and consider ‘how *much* progress was made to treating disease in the Renaissance’.
* Students could consider both traditional and new ideas relating to disease by exploring the role of women as traditional healers, purveyors of herbology and apothecaries etc. by using the resources in the links below.

**Possible teaching and learning activities**

* Provide an overview of traditional and new methods with reference to ‘quackery’. Students could answer some simple comprehension questions on Quackery and consider the extent to which this exemplifies progress.
* Introduce students to the impact of exploration on treating disease and new materials/products that were now available i.e. tobacco, rhubarb, chinchona bark and opium.

**Resources**

* Read an article about the [growth of apothecaries during the 17th century](https://thackraymuseum.co.uk/from-potions-to-pills-a-short-history-of-the-apothecary/) Thackrey Museum (5 minutes).
* Read an article [about the role of women running apothecaries during the 17th century](https://www.sciencehistory.org/stories/magazine/womens-business-17th-century-female-pharmacists/) Science History Institute (10 minutes).
* Read about the use of [Queen Anne's Lace](https://commonsensehome.com/queen-annes-lace/#:~:text=Medicinal%20Uses%20of%20Queen%20Anne%27s%20Lace,-Ryan%20Drum%20has&text=Its%20seeds%20have%20been%20used,to%20settle%20the%20gastrointestinal%20system.) as an early form of contraception (5 minutes).
* Read the story of [Jeanne Baret](https://scientificwomen.net/women/baret-jeanne-155) the only known woman to have completed the circumnavigation and notable female botanist (10 minutes).

**Lesson 13**

**Topic**

The Great Plague

**Specification content**

* Methods of treating disease
* Plague

**Learning outcomes**

* The focus of this lesson should allow students to demonstrate their understanding of new ideas and approaches to treating disease by focusing on the Great Plague as a case study.
* Students should look at the contemporary beliefs about the causes of the plague, the actual causes, as well as the attempted preventions and treatments (including the role of government/kingship and implementation of quarantine laws).
* Students should also look at the consequences of the Great Plague in terms of its social/ economic impact.
* There is also a good opportunity for students to compare the Great Plague with the Black Death. This will enable them to evaluate the extent of progress; for example, women searchers, quarantine, and laws introduced during Great Plague.

**Possible teaching and learning activities**

* Quick knowledge retrieval
* Students to examine the Laws introduced by King Charles II in London and to identify what measures were introduced to deal with the plague, which they feel would have been successful and which were different approaches to those followed during the Black Death.
* Class discussion where students identify similarities and differences between the Great Plague and the Black Death. Students could fill in a table comparing each pandemic. Also, an opportunity for students to practice a Q3. ‘Compare the….’

**Resources**

* Class discussion where students identify similarities and differences between the Great Plague and the Black Death. Students could fill in a table comparing each pandemic. Also, an opportunity for students to practice a Q3. ‘Compare the….’
* Explore a [source based lesson on London's responses to the Great Plague](https://www.nationalarchives.gov.uk/education/resources/great-plague/#:~:text=Most%20of%20the%20sick%20in,of%20dying%20within%20two%20weeks.) from the National Archives (15 minutes).
* Read an article on the [impact of the plague on women](https://www.historyextra.com/period/stuart/women-of-the-plague/). History Extra (10 minutes – subscription needed).
* Read an article on what [The Diary of Samuel Pepys reveals about the 1665 Plague](https://www.rmg.co.uk/stories/blog/curatorial/god-preserve-us-all-samuel-pepys-great-plague) (10 minutes).
* Listen to a podcast by Vanessa Harding [on Surviving the Great Plague](https://www.historyextra.com/period/stuart/surviving-great-plague-1665-vanessa-harding-podcast/). History Extra (40 minutes).

**Lesson 14**

**Topic**

The development of hospitals and care in the early modern period and modern period

**Specification content**

* The growth of hospitals
* Changes to the training and status of surgeons and physicians

**Learning outcomes**

* Students should learn about the development of hospitals in the late 18th and 19th century. It is an opportunity to identify change in the concept of a hospital; for example, changing from care to treatment and learning, dispensaries and the training of surgeons and doctors.
* This lesson could provide students with an opportunity to compare medieval hospitals with late 18th and early 19th century hospitals.

**Possible teaching and learning activities**

* Introduce the 17th century ‘hospital boom’ particularly stressing the renewed focus on treating, rather than caring for illness.
* Students could examine the different types of specialist hospitals that emerged i.e. Bethlehem (for the ‘insane’), military and pediatric hospitals (Great Ormond Street)
* In groups, students produce a comparative table analysing the similarities/differences between a typical medieval hospital and a typical late 18th century hospital.

**Resources**

* Read an article on the [hospital boom, particularly for those with disabilities](https://historicengland.org.uk/research/inclusive-heritage/disability-history/1660-1832/hospitals-boom/). Historic England (15 minutes).
* Read an article on [Bedlam](https://www.bbc.com/culture/article/20161213-how-bedlam-became-a-palace-for-lunatics). BBC Culture (15 minutes).
* Read a presentation on the [growth of hospitals from the Middle Ages to 20th century](https://oldoperatingtheatre.com/wp-content/uploads/2020/06/OOT_Hospitals-Resource.pdf) (5 minutes).
* Read an article on the [development of approaches to treating Mental Health](https://thackraymuseum.co.uk/2157-2/). Thackray Museum (10 minutes).
* Read an article on the [Savoy Hospital, London](https://lordgreys.weebly.com/articles-and-features/savoyhospital) (15 minutes).

**Lesson 15**

**Topic**

John Hunter

**Specification content**

* Changes to the training and status of surgeons and physicians
* The work of John Hunter

**Learning outcomes**

* The focus of this lesson should provide students with an opportunity to study changes to the training and status of surgeons and physicians using the case study of John Hunter. The lesson should focus on the enquiry question ‘What can the story of John Hunter reveal about 18th century physicians?
* Students should examine the medical context before the work of John Hunter, his training, use of the scientific method, collection of specimens and the books he wrote.

**Possible teaching and learning activities**

* Quick chronology retrieval.
* Introduce students to the work of John Hunter. Students could create a mind map on the key sections identified in the guidance.
* Students could consolidate their knowledge by watching the video below and adding to their mind map.

**Resources**

* Watch a video from [BBC Bitesize – on John Hunter and](http://www.bbc.co.uk/education/clips/zcrhn39) [public engagement in science](http://www.bbc.co.uk/education/clips/zcrhn39) **Warning**: you are strongly advised to preview to assess if this is suitable for your students due to the sensitive nature of the content (6 minutes).
* Read the story of [John Hunter and the Irish Giant](https://warwick.ac.uk/fac/arts/history/chm/outreach/irish_giant/thestory/) (10 minutes).
* Read an article about the [Secret Life of James Barry - First Documented Trans Doctor?](https://www.history.com/news/the-extraordinary-secret-life-of-dr-james-barry)

**Part three: A revolution in medicine**

**Prevention of disease**

**Lesson 16**

**Topic**

Edward Jenner, inoculation, and vaccination

**Specification content**

* Inoculation
* Edward Jenner
* Vaccination and opposition to change

**Learning outcomes**

* The focus of this lesson should be on the development of preventative medicine, notably inoculation and vaccination.
* Students should learn about the work of Lady Mary Wortley Montague, and notably Edward Jenner. There should be some opportunity to discuss the differences between inoculation and vaccination.
* There is a good opportunity for students to examine the long- and short-term importance of his work, as they consider the opposition he faced and the reasons for this opposition.
* They should consider how Jenner came to his discovery and his understanding of how his discovery worked.

**Possible teaching and learning activities**

* Introduce students to the nature of smallpox, epidemics, and its effects.
* Students could firstly examine the role of Lady Montague (amongst other women) and consider the nature of inoculation and the implications on smallpox.
* Explain the work of Edward Jenner and his discovery of vaccination. Students could produce a dual coded timeline to explain this narrative.
* Present students with a cartoon of the ‘The Cow Pock – The Wonderous Effects of the new Inoculation’ to facilitate a discussion of the opposition faced by Jenner, and the reasons for this opposition.

**Resources**

* Read an article on the work of [Lady Mary Montague and her campaign against Smallpox](https://www.historic-uk.com/HistoryUK/HistoryofBritain/Lady-Mary-Wortley-Montagu-Campaign-Against-Smallpox/). Historic UK (15 minutes).
* Watch a video on [The life and work of Edward](http://www.bbc.co.uk/education/clips/zt7gd2p) [Jenner](http://www.bbc.co.uk/education/clips/zt7gd2p) BBC Teach (11 minutes).
* Explore a lesson from the [National Archives on the Work of Jenner and Smallpox](https://www.nationalarchives.gov.uk/education/resources/victorian-health-reform/).
* Listen to a podcast on [The Feminist who Waged War on Smallpox](https://podcasts.apple.com/gb/podcast/history-extra-podcast/id256580326?i=1000515776688). History Extra (36 minutes).
* Listen to a podcast on [Smallpox and Jenner](file:///\\DFSMPWV01.internal.aqa.org.uk\DFS\QMTeams\Content%20and%20Resources\Subjects\History\GCSE\Scheme%20of%20work\3.%20Thematic%20study\2.%20Second%20draft\Smallpox%20and%20Jenner). Oxford University (43 minutes).

**The development of Germ Theory and identifying disease**

**Lesson 17**

**Topic**

Louis Pasteur and the Germ Theory

**Specification content**

Germ Theory, its impact on the treatment of disease in Britain: the importance of Pasteur

**Learning outcomes**

* The focus of this lesson should be on the discovery of the Germ Theory and the extent to which this was a turning point in medicine and health. This lesson should underpin the developments in both surgery and public health, that students will go on to consider.
* Students should firstly consider and revisit theories about disease before the Germ Theory including miasma, and spontaneous generation.
* They should then focus on Pasteur, how and why his discovery of Germs were made, including how it was proven – focusing on the use of science and technology.
* Importantly, students should also be able to consider the impact on Britain of germ theory. Students will go on to evaluate the importance of Germ theory in the 19th century debate on public health in towns and in developments of surgery, particularly those of Lister.

**Possible teaching and learning activities**

* Introduce students to the traditional beliefs about disease including spontaneous generation, specificity, and miasma. Students should also consider the difference between Contagionists, and anti-Contagionists.
* Students should then examine the work of Pasteur’s methods and understand the growing realisation about the specificity of germs and infection.
* Students can compose diagrams explaining the relationship between germs and infection; an annotated diagram about Pasteur’s famous swan necked flasks experiment will aid understanding.
* Students make notes on the difference between Contagionists, and anti- Contagionists, beliefs about infection and epidemics.

**Resources**

* Listen to a podcast on [BBC In Our Time - Louis Pasteur](https://www.bbc.co.uk/programmes/b08q317p) (51 minutes).
* Watch a video on the work of [Pasteur and Koch](https://www.youtube.com/watch?v=ZmaoHB5fKB4&list=PLcvEcrsF_9zJ8AqMTFZycm46Ks4DdSaLM&index=8). BBC Teach (7 minutes).
* Read a timeline of the [work of Pasteur](https://www.pasteur.fr/en/institut-pasteur/history). Institut Pasteur (10 minutes).
* Watch a video [the work of Pasteur](https://www.youtube.com/watch?v=OXdbQ1JkX7c). Biography (3 minutes).

**Lesson 18**

**Topic**

Robert Koch

**Specification content**

Robert Koch and microbe hunting

**Learning outcomes**

* The focus of this lesson should be about the work of Robert Koch and his discovery of the method of identifying specific bacteria. The lesson should focus on the enquiry ‘How did Koch contribute to the fight against infectious disease?’.
* Students should learn about Koch’s discovery of the method for identifying bacteria by describing his experiment of the identification of anthrax bacteria using mice.
* Students should also focus on his other discoveries including the use of using a solid medium for studying bacteria, and the staining of bacteria, ultimately providing tools for microbe hunters and leading to the identification of TB and the culminating vaccines.

**Possible teaching and learning activities**

* Introduce students to the work of Koch, including the specific elements highlighted in the guidance above. They should consider how Koch was ‘inspired’ by the work of Pasteur and developed his understanding of Germ Theory. Students could annotate Koch’s experiment on mice to show their understanding, and consider the specific bacteria he was able to identify.
* There is a good opportunity for students to compare and evaluate Koch and Pasteur. They could do this by thinking about each individual in terms of the situation before their work, what each individual discovered and the short- and long-term impact of their discoveries.

**Resources**

* Watch a video on the work of [Pasteur and Koch](https://www.youtube.com/watch?v=ZmaoHB5fKB4&list=PLcvEcrsF_9zJ8AqMTFZycm46Ks4DdSaLM&index=8). BBC Teach (7 minutes).
* Read an article [on the work of Robert Koch](https://www.newscientist.com/people/robert-koch/). New Scientist (5 minutes).
* Read an article and watch a video on [Koch the Microbe Hunter](https://www.nationalgeographic.com/history/history-magazine/article/robert-koch-bacteria-tuberculosis-anthrax-cholera). National Geographic (10 minutes).

**Lesson 19**

**Topic**

The impact of Koch and Pasteur

**Specification content**

* Pasteur and vaccination
* Robert Koch and microbe hunting
* Paul Ehrlich in 1880s and magic bullets
* Everyday medical treatments and remedies

**Learning outcomes**

* This lesson should focus on the impact of Pasteur and Koch. You may wish to consider the personal/international rivalry between their work, but the lesson should ultimately focus on the impact of their work in Britain.
* Students should firstly consider Pasteur’s development of the preventative field of medicine and the various vaccines developed.
* Students should then consider both Pasteur and Koch’s impact on Britain (Roberts and Cheyne) Students should understand the role of William Roberts and William Cheyne in convincing British doctors of the importance of Koch’s work.
* Students need to consider how the treatments available to, and used by, ordinary people in Britain changed or remained the same in the light of the discoveries of Pasteur.
* Finally, should consider the impact of Koch by looking at Paul Ehrlich’s work on finding a chemical cure and the use of magic bullets (Salvarsan 606).

**Possible teaching and learning activities**

* Knowledge retrieval on the work of Pasteur and Koch.
* Students could complete a table on Tyndall, Roberts and Cheyne – considering who they were inspired by and how this impact was felt in Britain.
* Students could also complete a Q3 comparison question on the work of Pasteur and Koch.

**Resources**

* Read a revision page on [Supporters of Koch and Pasteur in Britain](https://www.bbc.co.uk/bitesize/guides/z6kt6g8/revision/4). BBC Bitesize (10 minutes).
* Read a revision page on [the development of Magic Bullets - the first cures](https://www.bbc.co.uk/bitesize/guides/zcn94xs/revision/1). BBC Bitesize (10 minutes).
* Read an article on the contribution of Japanese microbiologist [Sahachiro Hata](https://www.smithsonianmag.com/smart-news/syphilis-cure-magic-bullet-180964644/) to the first Magic Bullet for Syphilis (15 minutes).
* Listen to a Podcast [Paul Ehrlich and the cure for syphilis](https://www.bbc.co.uk/sounds/play/b07cx3q8). BBC Sounds (40 minutes).

**A revolution in surgery and the development of Germ Theory**

**Lesson 20**

**Topic**

Simpson and the development of anesthetics

**Specification content**

Anesthetics; including Simpson and chloroform

**Learning outcomes**

* The focus of this lesson should centre around the development of surgery during the 19th century, notably examining the development of anesthetics and the work of James Simpson. The lesson could be framed around the enquiry question ‘How was the problem of pain dealt with in the 19th century?’.
* Students should first consider the three main problems in surgery (pain, infection and bleeding) and consider the extent to which these problems have been partially solved.
* The remainder of this lesson will consider the specific development of anesthetics including, the types of chemicals used, how they were tested and developed, why there was opposition to progress, how opposition was overcome.
* Importantly, consequences of these developments should be addressed; for example, freedom from pain, opportunity to do perform complex surgery and mortality rates.
* Although a range of anesthetics will be considered, including nitrous oxide and ether, a focus should be on the work of Simpson and chloroform, noting the reasons for acceptance of chloroform in childbirth in Britain.

**Possible teaching and learning activities**

* Using a visual or literary aid, introduce students to the ‘blood and guts’ nature of surgery during the 18th and early 19th century. Lindsay Fitzharris gives and excellent description of this in her book *The Butchering Art*.
* Introduce students to the development of anesthetics so far considering the pros and cons of each method.
* Students could read the story of Simpsons discovery of Chloroform and his work in maternity hospitals.
* Students suggest reasons for opposition and then research how opposition was overcome.

**Resources**

* Students suggest reasons for opposition and then research how opposition was overcome.
* Read an article [on the controversies of chloroform](https://www.thehistorypress.co.uk/articles/chloroform-170-years-of-controversy/). History Press (15 minutes).
* Read an article on [The Ether Controversy](https://hekint.org/2021/06/28/the-ether-controversy/) and the individuals associated with its development (20 minutes).
* Read an article on ‘Victoria’s Secret’ - [Queen Victoria and the acceptance of anesthetics in childbirth](https://www.ogmagazine.org.au/18/1-18/victorias-secret-chloroform-acceptability-analgesia-birth/#:~:text=So%20it%20was%2C%20that%20on,trifling%20during%20the%20uterine%20contractions%E2%80%A6'&text=the%20patient%20could%20inhale%20the%20anaesthetic%20vapours.) (15 minutes).
* Watch a video from the cast of ‘Victoria’ about [childbirth and using chloroform](https://www.youtube.com/watch?v=JtCEv2LEIzk) (3 minutes).
* Watch a video on [BBC website: Royal](http://www.bbc.co.uk/education/clips/znqb87h) [childbirth – why could having a baby be](http://www.bbc.co.uk/education/clips/znqb87h) [dangerous?](http://www.bbc.co.uk/education/clips/znqb87h) *Please preview to check if this is suitable for your students*.

**Lesson 21**

**Topic**

Joseph Lister and antiseptic surgery

**Specification content**

* Antiseptics; including Lister and carbolic acid
* Surgical procedures aseptic surgery

**Learning outcomes**

* Continuing with the focus on the development of surgery, students will consider another of the problems of surgery (infection) and examine the work of Lister’s development of carbolic acid in 1860s and opposition to its use. The lesson should be framed around the enquiry ‘How did Lister deal with the problem of infection in the 19th century’.
* You should start be revisiting the problem of infection, and attempts made to deal with infection so far. There should be some reconsideration of Pasteur’s Germ Theory, so that students understand the reasons why Lister was so important in convincing doctors about it. (You may also want to refer briefly to earlier work of Semmelweiss).
* Students should consider Lister’s development of carbolic spray, its efficacy but also reasons for opposition.
* You should then consider Lister’s long-term significance in development of antiseptic surgery to aseptic surgery. There is an opportunity to discuss any outstanding problems for surgeons, for example: blood loss, surgical shock, tissue typing/rejection.

**Possible teaching and learning activities**

* Quick knowledge retrieval on surgery so far.
* Students complete a Guided Reading style exercise on Lister’s discovery and development of antiseptic method, and development of carbolic spray.
* Students could look at the case study of Jamie Greenlees (who was run over by a cart and had his leg amputated) to consider how Lister’s discovery changed the approaches to surgery.
* Create a spider diagram summarizing the reasons why Lister was opposed.
* Introduce students to the idea of how Lister’s discoveries paved the way to aseptic surgery. Students could compare two pictures to discuss these improvements.

**Resources**

* Read an article by Lindsay Fitzharris on [The Grimy Operating Theatre](https://www.heraldscotland.com/life_style/arts_ents/15800257.a-grimy-operating-theatre-patient-fully-awake-imagine-terror-situation-lindsey-fitzharris-life-death-surgery-19th-century/) (15 minutes).
* Read an article on [Lister's Antisepsis System](https://www.sciencemuseum.org.uk/objects-and-stories/medicine/listers-antisepsis-system). Science Museum (15 minutes).
* Watch a video on [Lister's Antiseptic Principle](https://youtu.be/JKUIvt9DI_Q). Kings College London (3 minutes).
* Read an article on the [nurse who introduced gloves to the operating room](https://sciencehistory.org/stories/magazine/the-nurse-who-introduced-gloves-to-the-operating-room/). Science History Institute (10 minutes).

**Lesson 22**

**Topic**

The contribution of women in 18th and 19th centuries

**Specification content**

Growth of Hospitals

**Learning outcomes**

* This extension lesson should provide students with an opportunity to look at the contribution of various women to medicine during the 19th centuries (Elizabeth Garret Anderson, Sophia Jex Blake, Mary Seacole.
* This can be led by, but not solely focused on Florence Nightingale and her development of hospital care, and nursing practice.
* It provides an opportunity to provide a more inclusive picture of the development of the health of the people during the 18th and 19th centuries and can link back to Part two: dealing with disease; growth in hospitals.

**Possible teaching and learning activities**

* Introduce students to the notable contribution of women during the 18th and 19th centuries (see guidance and resources)
* Students could create Top Trump style cards on each woman to evaluate the extent of their contribution to the bigger picture of medicine and health.

**Resources**

* Read an article on [Sophia Jex-Blake - the fight to become Scotland's first female doctor](https://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-46180368). BBC (10 minutes).
* Read an article on [Queer Women in Medicine](https://fisher.library.utoronto.ca/fisher-blog/queer-women-history-medicine-sophia-jex-blake-and-womens-medical-education-victorian). University of Toronto (15 minutes).
* Read an article about [The life and work of Mary Seacole](https://www.maryseacoletrust.org.uk/learn-about-mary/). The Mary Seacole Trust (15 minutes).
* Read an article about the first female doctor [Elizabeth Garrett Anderson](https://www.bbc.co.uk/history/historic_figures/garrett_anderson_elizabeth.shtml). BBC History (5 minutes).
* Read an article about trans doctor [Dr James Barry](https://www.history.com/news/the-extraordinary-secret-life-of-dr-james-barry). History.com (10 minutes).
* Watch a video on Florence Nightingale. [BBC Teach](https://www.bbc.co.uk/teach/class-clips-video/history-ks1-ks2-florence-nightingale/z68fcqt) (5 minutes).

**Improvements in public health**

**Lesson 23**

**Topic**

John Snow and Public Health

**Specification content**

* Public health problems in industrial Britain
* Cholera epidemics
* The role of public health reformers
* Public health improvement

**Learning outcomes**

* The focus of this lesson should begin with establishing the bigger picture of the impact of the Industrial revolution on towns and cities, focusing on living conditions and the laissez faire approach of the government.
* This lesson will use cholera as an example of an epidemic as an agent of change and to illustrate theories about the causes of disease at the time, including and analysis of individuals like John Snow in their theories of spread and theories of creation of disease. Stress to students the significance of Snow’s discovery as it pre-dated Germ Theory, and forced government intervention. It should be based around the question ‘Why was Snow’s work so significant in improving public health in towns and cities?

**Possible teaching and learning activities**

* Quick knowledge retrieval on public health.
* Introduce students to the impact of the Industrial Revolution on towns and cities. There is an excellent opportunity to use cartoons/visual sources of the Industrial Period for students to identify problems and the reasons for these problems i.e. a court for King Cholera.
* Students study Snow’s map of Cholera deaths and make an inference on what they can infer.
* Introduce students to Snow’s findings and explain the significance of these findings in the fact Snow explicitly makes a link between dirt and disease, pre-Germ Theory.

**Resources**

* Court of King Cholera Cartoon.
* Watch a video on [Snow's Identification of Cholera](https://www.bbc.co.uk/programmes/p011t68y). BBC (5 minutes).
* Watch a short documentary on [Snow and the Broad Street Pump](https://www.youtube.com/watch?v=lNjrAXGRda4). Harvard Online (8 minutes).
* Listen to a podcast on the [Doctor who discovered how Cholera was spread](https://www.bbc.co.uk/programmes/w3cszmk2). Witness History BBC (9 minutes).
* Watch a video on [Chadwick and Snow](https://www.bbc.co.uk/teach/class-clips-video/medicine-through-time-chadwick-snow/zmqvrj6). BBC Teach (5 minutes).

**Lesson 24**

**Topic**

Improvements in Public Health

**Specification content**

* Public health improvement, including the 1848 and 1875 Acts
* The role of public health reformers (inc. Booth and Rowntree)
* Local and national government involvement in public health

**Learning outcomes**

* The focus of this lesson should be on improvements in Public Health, focused on the factors of the role of individuals and the government in bringing about change.
* Students should look at notable campaigners for Public Health including Farr, Chadwick, Booth, Hill etc. and the impact of their work on Public Health.
* Students should then consider the role of the government by evaluating the success of the 1848 and 1875 Public Health Acts.
* A good opportunity for students to study the impact of events such as the ‘Great Stink, 1858’ and wider factors influenced the development of Public Health including Bazalgette’s work on sewers in London.

**Possible teaching and learning activities**

* Quick retrieval quiz.
* Introduce students to the public health campaigners of the 19th century. Students could fill in a table noting the work of each individual and the impact they had.
* Discuss both the 1848 and 1875 Public Health acts. Students could draw a table noting the similarities and differences of the acts.
* AN opportunity for students to consider factors that contributed to the Public Health Acts i.e. government, individuals, communication, religion etc.

**Resources**

* Watch a video on [Discovering the work of Joseph Bazalgette](https://www.bbc.co.uk/teach/class-clips-video/discovering-the-work-of-joseph-bazalgette/zbc2scw). BBC Teach (5 minutes).
* Read an article on the work of [Octavia Hill](https://victorianweb.org/gender/hill.html) and her campaign for improved housing and living conditions Victorian Web (10 minutes).
* Watch a video on [Public Health Developments in 19th century](https://www.youtube.com/watch?v=MdNXDqCGv3M&list=PLcvEcrsF_9zJ8AqMTFZycm46Ks4DdSaLM&index=5). BBC Teach (5 minutes).
* Read an article on [Booth and Rowntree](https://www.rowntreesociety.org.uk/explore-rowntree-history/rowntree-a-z/charles-booth/). Rowntree Society (5 minutes).

**Review and assessment**

**Topic**

An assessment opportunity focused on the skills needed for the examination paper

**Specification content**

Assessment: knowledge and skills

**Learning outcomes**

* Students could first complete a card sort, linking the various events studied so far to the three main themes (infectious disease, surgery and public health), and then sort under the most relevant factor. This will work as a plan for them to complete a 16-mark answer.
* Students should be given advice on how to structure a 16-mark answer. They should have an opportunity to construct an, ‘economic factors’ 16-mark ‘factors’ answer which then should be used to explain and reinforce reference to ‘other factors’ in their answers.

**Part f****our: Modern medicine**

**Modern treatment of disease**

**Lesson 25**

**Topic**

Antibiotics

**Specification content**

* The development of the pharmaceutical industry
* Penicillin, its discovery by Fleming and its development by Florey and Chain

**Learning outcomes**

* The focus of this lesson should be on the development of drugs, notably antibiotics following its discovery by Fleming, and mass production by Florey and Chain. It is worth bringing in the work of Dorothy Crowfoot Hodgkinson and her discovery of 3D structure of penicillin during WWII. You may wish to refer to the work of Ehrlich and Domagk and ask students to recall their work on the development of chemical cures thus far.
* It might be anticipated that students have studied Fleming in Science at KS4 or KS4, so there is an opportunity to build into their knowledge on this.
* There is an opportunity to assess relevant factors such as individuals, the government, warfare and science and technology. These should be emphasized throughout.
* It is possible that you may wish to consider antibiotic resistance as part of this lesson, but in this scheme of learning it is considered in the final lesson.

**Possible teaching and learning activities**

Introduce students to the discovery of antibiotics by Fleming and the culminating mass production of penicillin by Florey and Chain, and Hodgkinson during WWII. Students could answer a simple question like ‘How did antibiotics develop during the modern era’ or draw a storyboard to document their understanding.

**Resources**

* Watch a video on Dorothy Crowfoot Hodgkinson and her role in the [development of antibiotics](https://www.youtube.com/watch?v=PraybTdD_9I) during WW1. Royal Society (6 minutes).
* Watch a video on the [Mass Production of Penicillin](https://www.youtube.com/watch?v=896YNlWxZI0). British Pathe (2 minutes).
* Read an article [The Real Story behind Penicillin](https://www.pbs.org/newshour/health/the-real-story-behind-the-worlds-first-antibiotic#:~:text=From%20January%20to%20May%20in,his%20initial%20observations%20in%201928.). PBS (10 minutes).
* Read a revision page and watch a video on [the discovery and development of antibiotics](https://www.bbc.co.uk/bitesize/guides/zcn94xs/revision/2). BBC Bitesize (10 minutes).

**The** **impact of war and technology on surgery**

**Lesson 26**

**Topic**

The impact of WWI and WWII on surgery

**Specification content**

* Plastic surgery
* Blood transfusions
* X-rays

**Learning outcomes**

* The focus of this lesson should be on the impact that 20th century warfare had on the development of surgery and anatomy. Whilst the specification content is concise, there is an abundance of medical developments that can be considered time permitting. The lesson should be driven by the factor of warfare and consider ‘How significant was warfare, amongst other factors in helping surgery advance?’
* You may wish to start by looking at the chance discovery of X-rays by Rontgen and role of Marie Curie during WWI.
* Another focus should be on the discovery of blood groups (Karl Landsteiner), which in turn enabled successful transfusions solving a final major issue in surgery.
* Other notable individuals should be considered including William Rivers, Hugh Owen Thomas, Edison and Eastman Harold Gilles, Archibald McIndoe and Harold Ridley.
* Using the links in the guidance below, students could also examine the vital role played by women doctors, and their contribution to the advancement of surgery.
* Additionally, this would be a good opportunity to consider the stories of disability history, as-well as the development of mental health treatment.

**Possible teaching and learning activities**

* Knowledge retrieval on context of 20th century warfare.
* Introduce students to the technological developments and the scale of injuries inflicted by modern warfare. A video could accompany this.
* Students could consider the various individuals who contributed to surgery during war and fill in a table to consider their discoveries and short/long term impact.
* There are some excellent opportunities to ‘learn beyond the spec’ here, so students could examine the later bullet points in the guidance using a ‘Meanwhile, nearby…’ style worksheet.

**Resources**

* Read an article about how [Marie Curie brought X-Rays to the Battlefield](https://www.smithsonianmag.com/history/how-marie-curie-brought-x-ray-machines-to-battlefield-180965240/). Smithsonian Magazine (10 minutes).
* Read an article on [the discovery, and long term impact of X Rays](https://theconversation.com/on-the-120th-anniversary-of-the-x-ray-a-look-at-how-it-changed-our-view-of-the-world-50154). The Conversation (15 minutes).
* Read an article on [medical developments in WWI](https://www.bl.uk/world-war-one/articles/medical-developments-in-world-war-one#:~:text=New%20weapons%20caused%20complex%20wounds,placed%20in%20the%20wounded%20area.). British Library (10 minutes).
* Watch a video about [female doctor Elsie Inglis who served as a doctor at the front in WWI](https://www.elsieinglis.org/about-elsie). Forces TV (5 minutes).
* Read an article about [Isabella Sternhouse a female doctor who served in WWI](http://ww1centenary.oucs.ox.ac.uk/body-and-mind/why-july-1916-was-an-important-month-for-professional-women/) (10 minutes).
* Watch a video about how [the development of reconstructive surgery](https://www.bbc.co.uk/teach/class-clips-video/history-ks4-gcse-how-did-reconstructive-surgery-develop-in-world-war-one/zmfvd6f). BBC Teach (5 minutes).
* Read a review of historian Lindsay Fitzharris’ book ‘Facemaker’ [which looks at Gilles and plastic surgery during WWI](https://www.npr.org/2022/06/08/1103501123/the-facemaker-review-lindsey-fitzharris-wwi-disfigured-soldiers).
* Explore the National Archives [records on the treatment of Mental Health during WWI](https://blog.nationalarchives.gov.uk/needs-tactful-and-sympathetic-treatment-mental-health-during-the-first-world-war/) (15 minutes) – contains some excellent source material.
* Listen to a podcast on [The Guinea Pig Club and Plastic Surgery in WWII](https://podcasts.apple.com/us/podcast/the-guinea-pig-club-plastic-surgery-ww2/id1526490428?i=1000552646021). Apple Podcast (other streaming sites available) (46 minutes).

**Modern pub****lic health**

**Lesson 27 and 28**

**Topic**

The Liberal Reforms

**Specification content**

* The importance of the Boer War
* The Liberal social reforms

**Learning outcomes**

* The focus of this lesson should be on the Liberal Reforms centered around the question ‘Why were the Liberal Reforms so significant’? Ultimately many of the Liberal Reforms are still in place (in some form) today, and it’s important to draw out these links with students.
* Students should consider the reasons why the Liberal Government introduced reforms, by considering the Boer War, the work of reformers such as Booth and Rowntree and competition with other nations.
* The lesson should also evaluate the effectiveness of the Liberal Reforms, considering the extent to which they solved issues relating to public health. This will allow for students to see why there was a still a need for universal health care and link to the development of the NHS.
* There is also a solid opportunity to explain the factors involved in bringing about changes in public health, such as the importance of individuals, the role of the government etc.

**Possible teaching and learning activities**

* Students could complete a spider diagram on the reasons why the Liberals introduced the reforms.
* Introduce students to the reforms. Students could fill in a table documenting (i) the reform who it targeted (ii) success/strengths (iii) limitations of the reforms.
* Students could then analyse contemporary source material i.e. election campaign posters for the Liberals and complete a ‘How useful’ style question.

**Resources**

* Read a revision page [on the Liberal Reforms](https://www.bbc.co.uk/bitesize/guides/z7cm2v4/revision/2). BBC Bitesize (5 minutes).
* Watch a series of lectures on MASSOLIT about the [Liberal Reforms by Professor Matthew Cole (University of Birmingham)](file:///\\DFSMPWV01.internal.aqa.org.uk\DFS\QMTeams\Content%20and%20Resources\Subjects\History\GCSE\Scheme%20of%20work\3.%20Thematic%20study\2.%20Second%20draft\Liberal%20Reforms%20by%20Professor%20Matthew%20Cole%20(University%20of%20Birmingham)) (40 minutes total – account needed, well worth it if possible).

**Lesson 29**

**Topic**

The Welfare State and the NHS

**Specification content**

* The Beveridge Report and the Welfare State
* The impact of two world wars on public health, poverty and housing
* Creation and development of the National Health Service
* Costs, choices and issues of healthcare in the 21st century

**Learning outcomes**

* The focus of this lesson should be based the creation of the Welfare State and the NHS. The lesson could follow the enquiry ‘Why was the creation of the NHS so significant to the health of the people’?
* The content of this lesson should focus firstly on the reasons why there was a need for the NHS, including the impact of WWII, the Beveridge Report (and individuals like William Beveridge) and its connection to the creation of the Welfare State.
* Secondly, students should consider the principles of the Welfare State, the creation and first day of the NHS and the services offered. Students should consider individuals such as Clement Atlee and Nye Bevan, and their role in the development of the NHS.
* Students should also discuss the challenges faced in the form of opposition, notably from the BMA.
* Finally, this lesson should also consider the future of the NHS, the changes in its services since 1948, and the challenges faced in the future (i.e. cost, staffing and effectiveness).

**Possible teaching and learning activities**

* Introduce students to the problems of poverty because of the Second World War. Students could answer a simple question ‘How did the Second World War highlight the need for reform’.
* Students could encounter the Beveridge Report by analysing the cartoon showing the ‘5 Giants’.
* Explain to students the concept of the NHS, services offered and reasons for opposition. Students could fill in a graphic organizer to record their understanding of these key areas of content.
* Students should finally consider the future of the NHS today, and the challenges faced. They could read a variety of articles and have a class debate on its future.

**Resources**

* Listen to the podcast [of how the Second World War transformed British state recovery](https://theconversation.com/how-the-shock-of-the-second-world-war-transformed-the-british-state-recovery-podcast-part-four-141324) (32 minutes).
* Read an article about the [impact of WWII on the health of children](https://www.rcpch.ac.uk/news-events/news/carrot-day-child-health-during-world-war-ii) (10 minutes).
* Watch a video and read an article on [how Britain built the NHS](https://www.bbc.co.uk/teach/how-did-britain-build-the-nhs/zvhmkmn). BBC Teach (15 minutes).
* Read an article on the [debt owed to the Windrush generation and the NHS](https://www.theguardian.com/commentisfree/2018/jun/22/honour-nhs-built-on-immigration-windrush). The Guardian (15 minutes).
* Watch a panel debate [on the future of the NHS](https://www.youtube.com/watch?v=YVlSCtQQSA4). The Guardian Live (2 hours total).

**Lesson 30**

**Topic**

The future of modern health?

**Specification content**

* New diseases and treatments
* Antibiotic resistance
* Alternative medicine and treatments
* Transplant surgery
* Modern surgical methods, including: lasers; radiation therapy; and keyhole surgery

**Learning outcomes**

* The focus of this lesson should be on modern medicine and issues facing health today. The focus of this lesson should consider (i) new diseases and treatments in the 21st century world (ii) new surgical developments (iii) alternative medicine and treatments.
* The first consideration should be about new diseases faced by the population including Alzheimer’s, Cancer, Parkinson’s, and diseases resulting from poor lifestyle choices i.e. smoking, drinking and obesity.
* For modern developments in surgery, there will need to be a consideration of transplant surgery, the discovery of DNA by Crick and Watson and Rosalind Franklin and the development of genetic medicine including cloning and the Human Genome Project. Students should consider the opportunities provided to surgery because of these discoveries. You will also want to look at the development of scanning methods from X-Ray to CT, MRI as well as new treatments like radiation, and procedures like keyhole surgery etc.
* Alternative approaches to medicine will also need to be discussed including, hypnotherapy, aromatherapy, acupuncture etc. Also, of note is why people are starting to turn to alternative medical treatments.

**Possible teaching and learning activities**

Students could complete a timeline documenting the new developments to medicine since the creation of the NHS. They could use colours to categories these into the wider themes and/or factors.

**Resources**

* Read an article on [Antibiotic Resistance](https://www.bbc.co.uk/bitesize/guides/zyxg7p3/revision/8). BBC Bitesize (5 minutes).
* Read an article on [Rosalind Franklin and her contribution to the discovery of DNA](https://www.kcl.ac.uk/the-structure-of-dna-how-dr-rosalind-franklin-contributed-to-the-story-of-life-2). Kings College London (10 minutes).
* Watch a series of TED Talks on [The Future of Medicine](https://www.ted.com/playlists/23/the_future_of_medicine).
* Read an article about [Gene Editing and Gene Therapy for treating diseases](https://www.genome.gov/about-genomics/policy-issues/what-is-Genome-Editing). National Human Genome Research Institute.

**Review and** **assessment**

**Topic**

An assessment opportunity focused on the skills needed for the examination paper

**Specification content**

Assessment: knowledge and skills

**Guidance**

* Students could first complete a chronology knowledge based test, with the opportunity to identify factors and themes.
* Students should be given advice on how to structure a 16-mark answer. They should have an opportunity to construct an, ‘economic factors’ 16-mark ‘factors’ answer which then should be used to explain and reinforce reference to ‘other factors’ in their answers.
* Students could sit a full paper exam – time permitting.