

PiXL Independence:

History - Student Booklet

KS4

Medicine in Britain

Contents:

- i. Multiple Choice Questions – 20 credits
- ii. Short Answer Questions – 10 credits each
- iii. Start to think about – 30 credits each
- iv. Suggested reading – 50 credits each
- v. Long Answer Questions – 100 credits and 20 credits for marking your own
- vi. 6 Degrees of Separation – 30 credits per line

i. Multiple Choice Questions

10 credits for each set of questions answered.

1. When did the Black Death arrive in England?
 - a. 1348
 - b. 1352
 - c. 1200
 - d. 1455

2. What rational theory of illness did they use in the medieval period?
 - a. Four Humours
 - b. Praying to God
 - c. Being good
 - d. Spontaneous Generation

3. How many hospitals were set up in the medieval period?
 - a. Over 700
 - b. None
 - c. Over 50
 - d. Over 1000

4. What did hospitals focus in the medieval period?
 - a. Care not cure
 - b. Administering medicines
 - c. Praying to patients
 - d. Cleanliness

5. What was miasma?
 - a. Movement of the planets
 - b. Bad air
 - c. Storm
 - d. Bad breath

6. Which of the following is not a religious treatment for illness used during the Middle Ages?

- a. Healing prayers
- b. Fasting
- c. Bloodletting
- d. Going on a pilgrimage

7. Who proved the circulation of the blood?

- a. William Harvey
- b. Edward Jenner
- c. Louis Pasteur
- d. Andreas Vesalius

8. In 1543, Andreas Vesalius had his first book published, *On the Fabric of the Human Body*. What information did it contain?

- a. Anatomical drawings
- b. Medical prayers
- c. Herbal remedy mixtures
- d. Humoural treatments

9. When was the Great Plague?

- a. 1666
- b. 1665
- c. 1348
- d. 1503

10. What were 'Quacks'?

- a. Travelling salesmen selling medicine 'cure-alls'
- b. Ducks
- c. Villagers
- d. Doctors

11. Who encouraged doctors to closely observe their patients during the Renaissance and move away from the ideas of Galen and Hippocrates?
- a. William Harvey
 - b. Edward Jenner
 - c. Thomas Sydenham
 - d. Andreas Vesalius
12. What technology, developed during the Renaissance, helped more widespread communication of medical ideas?
- a. Microscope
 - b. Printing Press
 - c. Internet
 - d. Fire engine pump
13. Who brought inoculation from Turkey to England?
- a. Edward Jenner
 - b. Lady Mary Wortley Montague
 - c. Robert Koch
 - d. Louis Pasteur
14. What was the name of the young boy that Jenner first tested his vaccine?
- a. James Phipps
 - b. Hannah Greener
 - c. Mary Brown
 - d. George Jenner

15. Guess who? This person taught hundreds of other surgeons, demanded careful observation in surgery; experimented on himself; collected and studied over 3000 anatomical specimens.

- a. Edward Jenner
- b. John Hunter
- c. Andreas Vesalius
- d. Christian Barnard

16. What did James Simpson use as an anaesthetic?

- a. Chloroform
- b. Nitrous Oxide
- c. Ether
- d. Alcohol

17. Edwin Chadwick wrote an important report on the health and living conditions of the poor. It clearly highlighted the need for cleaner streets and clean water. When was it published?

- a. 1842
- b. 1848
- c. 1905
- d. 1875

18. When was the second Public Health Act introduced?

- a. 1842
- b. 1848
- c. 1875
- d. 1911

19. Who discovered the Germ Theory?

- a. Edward Jenner
- b. Florence Nightingale
- c. Louis Pasteur
- d. Robert Koch

20. Who designed the sewer network in London?

- a. William Farr
- b. John Snow
- c. Joseph Bazalgette
- d. Octavia Hill

21. When was the theory of germs published?

- a. 1861
- b. 1863
- c. 1850
- d. 1929

22. Who applied Pasteur's theory to human diseases soon after germ theory was discovered?

- a. Robert Koch
- b. John Tyndall
- c. Alexander Fleming
- d. Gerard Domagk

23. Who used carbolic acid in surgery?

- a. Ignaz Semmelweiss
- b. Joseph Lister
- c. William Halstead
- d. Robert Koch

24. Florence Nightingale transformed hospitals during which war?

- a. Crimean War
- b. Boer War
- c. First World War
- d. Second World War

25. What killer disease, caused by dirty water, killed thousands during the nineteenth century?

- a. Smallpox
- b. Tuberculosis
- c. Cholera
- d. Syphilis

26. When investigating deaths from cholera, Dr John Snow plotted a spot map of which road?

- a. Millers Lane
- b. High Street
- c. Church Lane
- d. Broad Street

27. Who developed the first magic bullet in 1909?

- a. Robert Koch
- b. Paul Ehrlich
- c. Alexander Fleming
- d. Gerhard Domagk

28. What was the problem with the National Insurance Act introduced by the Liberal government?

- a. Didn't extend to the workers family
- b. Too expensive
- c. No one used it

29. Which war was a major factor in the mass production of penicillin?

- a. WW1
- b. WW2
- c. Korean War
- d. Vietnam War

30. When was the NHS launched?

- a. 5th July 1942
- b. 5th July 1945
- c. 5th July 1948
- d. 5th July 1950

31. Who were Francis Crick and James Watson?

- a. Researched DNA
- b. Two doctors
- c. Discovered vaccination
- d. Soldiers in WW2

32. Which South African heart surgeon performed the first heart transplant?

- a. Christian Barnard
- b. Alexander Fleming
- c. John Tyndall
- d. John Hunter

33. Final sequencing of the entire Human Genome is now complete. This is a huge breakthrough in understanding how genes help determine who a person is. When was it declared complete?

- a. 2001
- b. 2000
- c. 2003
- d. 2005

34. X-rays, MRI scans and ECGs are all examples of what factor playing a key role in the diagnosis of illness in the twentieth century?

- a. Government
- b. Individuals
- c. Technology
- d. Church

35. Which cancer is the second most common cancer in the UK?

- a. Lung
- b. Breast
- c. Skin
- d. Prostate

ii. Short Answer Questions

Answer the questions with short responses

10 credits each

1. Explain why there was a continuity in ideas about the cause of disease and illness during the Middle Ages?
2. Why was the Black Death hard to stop?
3. How did the Christian church help medicine?
4. How did the Christian church hinder medical progress?
5. How did medical ideas about the cause of illness change during the Renaissance?
6. What led to a change in medical ideas during the Renaissance?
7. Why was Vesalius significant?
8. Why was Harvey significant?
9. What factors enabled Harvey to make his discovery?
10. What does the Great Plague tell us about medical knowledge during the Renaissance?
11. Describe how a vaccine works.
12. Explain the significance of vaccinations in the nineteenth century.
13. What opposition did Jenner face to the smallpox vaccination?
14. What was Louis Pasteur's contribution to medicine?
15. What was Robert Koch's contribution to medicine?
16. How was the discovery of germs significant for medicine in the nineteenth century?
17. How was disease and illness prevented during the nineteenth century?

18. What changes took place in hospitals during the nineteenth century?
19. Who was Octavia Hill?
20. What did Edwin Chadwick do to improve Public Health?
21. Describe Dr John Snow's investigation of cholera in 1854?
22. What is an anaesthetic?
23. How did Joseph Lister transform surgery?
24. Describe surgery in the Industrial era
25. Explain the significance of Salvarsan 606.
26. Why were the liberal reforms significant?
27. Describe the impact of the liberal reforms.
28. How did surgery improve in WW1 and/or WW2?
29. Who is the greater individual, Gilles or Macindoe?
30. Explain the development in treatment of illness in the 20th century.
31. What was the Human Genome Project?
32. Explain the significance of DNA for medicine.
33. Explain how penicillin was discovered, developed and mass-produced.
34. What arguments did politicians give in favour of the NHS?
35. What lifestyle factors are understood to cause disease and illness?
36. How has the approach to the prevention and treatment of illness changed in the twentieth century?
37. Who is the greatest individual in medicine?

38. What has been the greatest breakthrough in medicine? Why?
39. Which time period saw the most change in the understanding of the cause of disease and illness?
40. Which time period saw the most change in the prevention and treatment of disease and illness?

iii. Start to think about...

30 credits each

1. Can you complete the following table detailing the influence that the Church had in medieval medicine?

	Influence of the Church
Ideas about the cause of disease and illness	
Treatment and prevention of disease and illness	
Care of the sick	

2. Can you describe the Theory of the Four Humours and the Theory of Opposites?

3. Can you complete the following table detailing the medical ideas during the Black Death (1348)?

	Ideas about cause	Treatment and prevention
Religious		
Supernatural		
Natural		

4. Can you complete the following table analysing the extent of change in medical ideas during the Renaissance?

Idea:	Description:	Change: (✓)	Continuity: (✓)
Theory of Four Humours			
Miasma			
Diagnosis using urine			
Animalcules			
Observation of patient			
External factors: e.g. weather			
Transference			

5. Can you complete the following table detailing the short and long-term impact of the work of Vesalius?

Short term impact	Long term impact

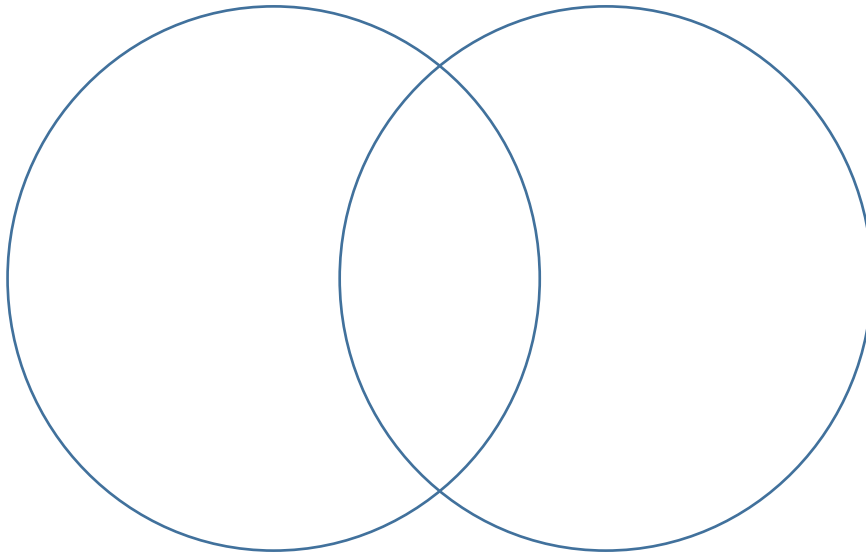
6. Can you complete the following table detailing the role of each factor in Harvey's discovery of the circulation of the blood?

The Church	
The Government	
Individual	
Science	
Technology	
Attitudes and Beliefs	

7. Can you complete the following Venn diagram comparing the medical ideas during the Black Death (1348) and the Great Plague (1665)?

Black Death (1348)

Great Plague (1665)



8. Can you match the following events to the correct date?

Date	Event
1796	Simpson discovered chloroform was an anaesthetic
1847	Koch identified the microbes for Tuberculosis and Typhoid
1848	Koch identified the microbe for anthrax
1852	Jenner developed the smallpox vaccine
1853	Hannah Greener died from a chloroform overdose
1854	Nightingale set up the Nightingale School of Nurses
1859	Nightingale went to the Crimea to improve hospitals
1860	Lister used the Carbolic Spray in the operating theatre
1861	Queen Victoria used chloroform during childbirth
1865	Louis Pasteur published his Germ Theory
1876	The British Government made the smallpox vaccine compulsory
1882	Nightingale wrote Notes on Nursing

9. Can you complete the following table detailing the impact that the Germ Theory had on medicine?

	Impact of the Germ Theory
Ideas about the cause of disease and illness	
Treatment and prevention of disease and illness	
Care of the sick	
Public Health	
Surgery	

10. Can you complete the following table detailing the short and long-term impact of Jenner's smallpox vaccine?

Short term impact	Long term impact

11. Can you complete the following table detailing the short and long-term impact of Dr John Snow's discovery that cholera was caused by dirty water?

Short term impact	Long term impact

12. Can you match the following events to the correct date?

Date	Event
1901	Old Age Pensions introduced
1906	Alexander Fleming discovered penicillin
1909	School Meals Act
1909	Beveridge Report
1911	First magic bullet: Salvarsan 606
1928	Seebohm Rowntree published 'Poverty: a study of town life'
1942	DNA discovered
1944	National Insurance Act
1948	First heart transplant
1953	Penicillin used to save the lives of soldiers on D-Day
1967	National Health Service began

13. Can you complete the following table detailing the role of the government in medicine since c.1900?

	Role of the Government
Ideas about the cause of disease and illness	
Treatment and prevention of disease and illness	
Care of the sick	
Public Health	
Surgery	

14. Can you complete the following table listing examples of science and technology used in medicine since c.1900?

Diagnosis	
Prevention	
Treatment	
Surgery	

15. Can you complete the following table detailing the role of each factor in discovery, development and mass production of penicillin?

The Church	Discovery/ development/ mass-production	
The Government	Discovery/ development/ mass-production	
Individual	Discovery/ development/ mass-production	
Science	Discovery/ development/ mass-production	
Technology	Discovery/ development/ mass-production	
Attitudes and Beliefs	Discovery/ development/ mass-production	

iv. Suggested Reading

50 credits each - read and create 10 point summary

Articles to expand and build your knowledge

1. Medieval Medicine:
<https://www.bl.uk/the-middle-ages/articles/medicine-diagnosis-and-treatment-in-the-middle-ages>
2. Renaissance Anatomy:
https://metmuseum.org/toah/hd/anat/hd_anat.htm
3. Vesalius' Anatomy:
<http://www.bl.uk/learning/cult/bodies/vesalius/renaissance.html>
4. William Harvey and the circulation of the blood:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2776239/>
5. Edward Jenner and the smallpox vaccine:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1200696/>
6. Florence Nightingale:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4557413/>
7. The Importance of Penicillin:
https://wwwnc.cdc.gov/eid/article/23/5/16-1556_article
8. The Discovery of DNA
<https://www.nature.com/scitable/topicpage/discovery-of-dna-structure-and-function-watson-397>

v. Long Answer Essay Questions

100 credits and 20 credits for marking your own

1. 'The Church was the most influential factor in medieval medicine'. How far do you agree? Explain your answer.
2. Has religion been the main factor in the development of medicine in Britain since the Middle Ages? Explain your answer with reference to religion and other factors.
3. 'There was no change in ideas about medicine between the Black Death (1348) and the Great Plague (1665)'. How far do you agree? Explain your answer.
4. 'Individuals had the greatest impact on medical training during the Renaissance'. How far do you agree? Explain your answer.
5. 'Jenner's smallpox vaccine was a major breakthrough in medicine'. How far do you agree? Explain your answer.
6. 'There was rapid change in surgical treatment in the period c1700-c1900'. How far do you agree? Explain your answer.
7. How far do you agree that the most important changes in public health in Britain took place in the nineteenth century? Give reasons for your answer.
8. 'Urbanisation has been the most important factor in improving public health in Britain in the nineteenth century.' How far do you agree with this statement? Give reasons for your answer.
9. The discovery of penicillin was a major development in the treatment of illness since c.1900'. How far do you agree? Explain your answer.

10. 'The Government had the greatest impact on developments in medical treatment since c.1900'. How far do you agree? Explain your answer.

11. 'Developments in scientific knowledge led to major changes in the understanding of the cause of disease and illness in the twentieth century'. How far do you agree? Explain your answer.

12. Has science and technology been the main factor in understanding the causes of disease in Britain? Explain your answer with reference to science and technology and other factors.

13. Has government been the main factor in the development of public health in Britain? Explain your answer with reference to government and other factors.

14. How far do you agree that the most significant changes in public health in Britain took place in the twentieth century? Give reasons for your answer.

vi. Degrees of Separation

Can you find the events, people or actions that connect the top and bottom of the chain?

30 credits per line

Smallpox vaccine:

1. Inoculation
2. _____
3. James Phipps
4. Smallpox vaccine (1796)
5. _____
6. _____

Vaccines:

1. Inoculation
2. Edward Jenner
3. _____
4. _____
5. _____
6. Rabies vaccine (1885)

Public Health:

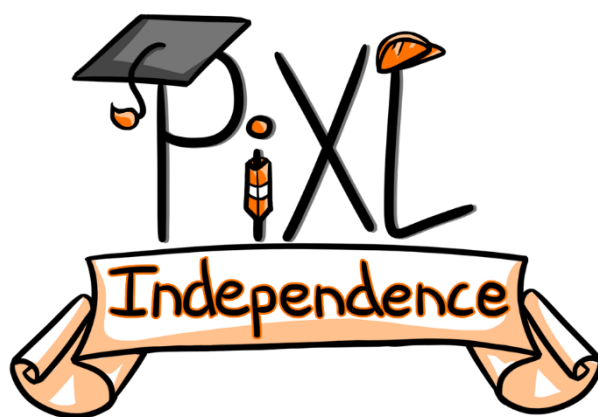
1. Cholera
2. _____
3. _____
4. _____
5. _____
6. Second Public Health Act (1875)

Surgery:

1. James Simpson
2. _____
3. Black Period of Surgery
4. _____
5. _____
6. Aseptic surgery

Penicillin:

1. Alexander Fleming
2. _____
3. _____
4. _____
5. _____
6. D-Day



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