

Lesson details

Year Group: Year 10

Subject: History

Where I will find my work: In this document

Do Now Questions

1. What is penicillin?
2. Who was Louie Pasteur?
3. Name two different time periods we cover in Health.

Engage

LO: How did World War Two and technology impact medicine in the present day?

Learn

Read the developments to happen as a result of WWII and sub-head them.

Build

Answer questions 1 – 3, fill out the explanation as to how this helped develop surgery table and answer the question “Why was Roentgen’s discovery so important to modern surgery?”

Apply

Answer questions 1- 3 on the apply stage page.

Review

Give three reasons from this lesson why surgery success rate is higher now than in 1900.



Midsomer Norton Schools Partnership

Our History

Name: _____

Teacher: _____

Form: _____

Target Grade: _____

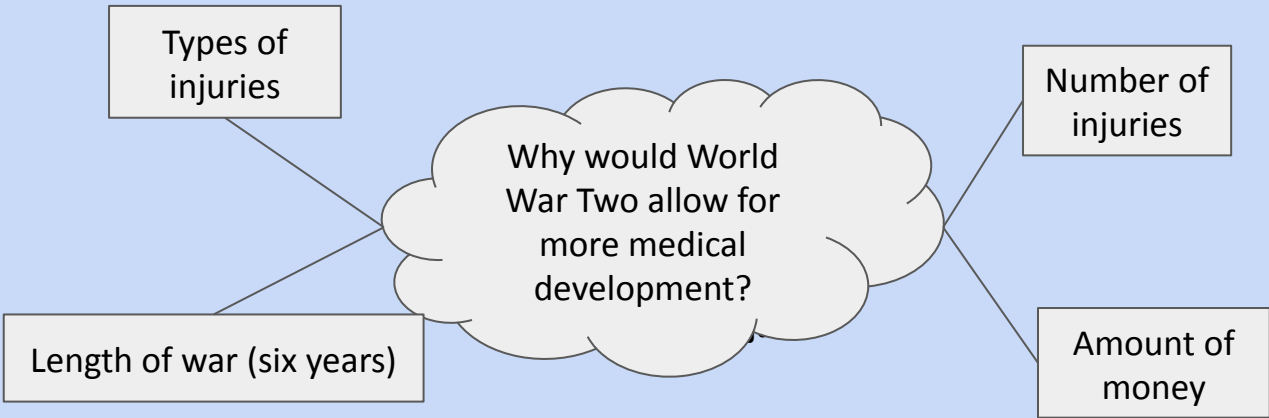


Britain: Health and the people: c1000 to the present day

UNIT FOUR: Modern Medicine, 1900 - The Present Day



DO NOW TASK: Write around the mindmap below



LESSON FIVE

Date:



How did World War Two and technology impact medicine in the present day?

L/O □ To **identify** significance of developments

The Second World War was the deadliest conflict in history, with an estimated 70 to 85 million deaths worldwide. This represented around 3% of the global population at the time and is a greater number of people than the population of Great Britain today.

Despite the scale of destruction and loss of life, the war also led to some of the most significant medical advances in history, driven by the urgent need to treat wounded soldiers and civilians.

Read the below developments to happen as a result of WWII and colour code

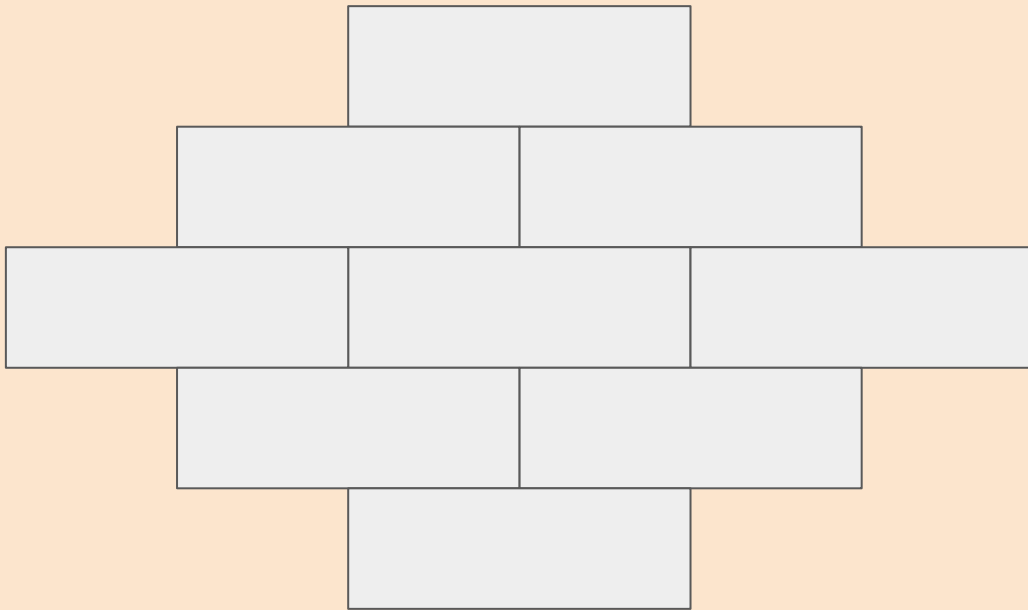
Developments in medical knowledge	Developments in surgery	Developments in public health
<u>The National Health Service</u> During the Second World War, the government increased its involvement in healthcare. In 1942, William Beveridge published a report proposing a free National Health Service available to everyone. This led to the creation of the NHS in 1948.	<u>Blood Transfusions</u> Advances in blood storage made during the First World War continued into the interwar period. As a result, the British National Blood Transfusion Service was established in 1938, ensuring blood could be safely collected, stored and supplied during the Second World War.	<u>Heart Surgery</u> Army surgeon Dwight Harken helped develop heart surgery during the Second World War by operating on beating hearts to remove bullets and shrapnel. His work showed that the heart could be safely operated on.
<u>Plastic Surgery</u> Archibald McIndoe, a plastic surgeon, treated pilots with severe facial burns and injuries. He used new drugs such as penicillin to prevent infection and improve recovery while developing new reconstructive techniques.	<u>Diet</u> The government encouraged people to grow their own food through campaigns such as <i>Dig for Victory</i>. This increased access to fresh food and improved people's diets during the war.	<u>Poverty</u> Over one million children were evacuated from cities to the countryside. This revealed the poor living conditions and health of many urban families and increased awareness of poverty in Britain.
<u>Hygiene and Disease</u> To keep Britain "fighting fit", the government used posters and campaigns to promote cleanliness and healthy living, and introduced vaccination programmes against diseases such as diphtheria.	<u>Drug Development</u> The importance of penicillin was recognised by the British and American governments during the war. This led to the mass production of the drug for use by soldiers and civilians.	<u>World Health Organisation (WHO)</u> The Second World War highlighted global problems in healthcare. As a result, the World Health Organisation (WHO) was created in 1946 to improve health standards around the world.





- 1) Explain which of these changes show the impact of World War One in medical developments

- 2) Place the developments on the diagram below (an order of importance)



- 3) **Grade 3-4:** Explain what you believe was the most and least important medical development. Why was one more important than another.
Grade 5-9: Explain what you believe was the first and second most important medical development and justify your reasoning. Why was one more important than another?



Surgical developments after 1945



Development	Description	Explanation as to how this helped develop surgery
Improved anaesthetics	These allow patients to be unconscious for longer periods of time during surgery.	
Improved antiseptics	These allow a greater range of germs to be killed before, during and after surgery.	
Transplant surgery	After WWII, improved surgical skills made organ transplants possible. The first successful kidney transplant in 1954 showed how replacing damaged organs could save lives. Transplants increased survival and encouraged further surgical advances.	
Anti rejection drugs	Drugs like cyclosporine reduce the risk of transplanted organs being rejected. This made transplants safe, encouraging surgeons to try more operations and develop new surgical techniques	
Keyhole surgery	Keyhole surgery uses tiny cuts, cameras, and special tools instead of large incisions. This reduces infection, pain, and recovery time, making surgery safer. It shows how technology has improved precision and changed the way operations are performed.	
Microsurgery	This allows surgeons to magnify small areas so nerves and blood vessels can be reconnected.	
Laser surgery	Developed in the 20th century, laser surgery is used in eye operations, to treat skin conditions, unblock arteries, remove tumours and control bleeding.	
Medical imaging	Advances like X-rays, CT scans, and MRIs let doctors see inside the body in detail. This improved diagnosis and surgical planning, allowing operations to be more precise, reducing mistakes, and helping patients recover more safely and quickly.	

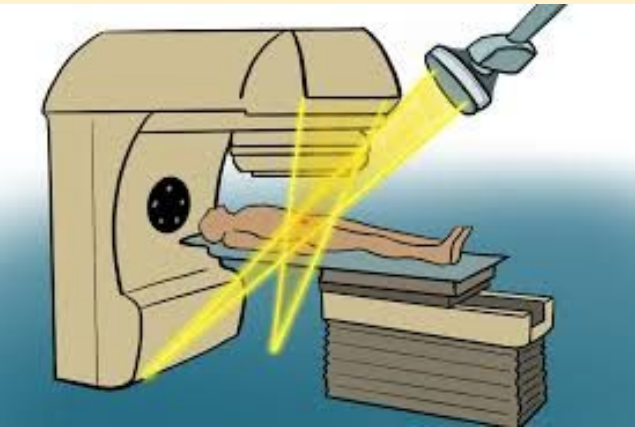
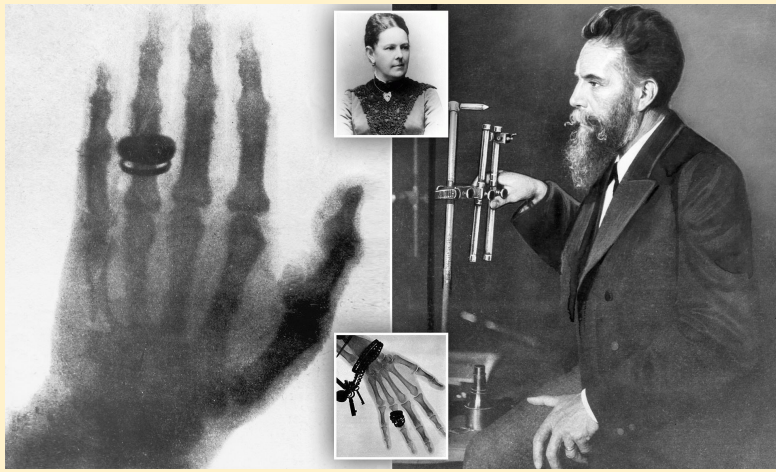
Radiation Therapy

In 1895, German physicist Wilhelm Conrad Roentgen discovered X-rays, creating excitement in the medical world.

Within a few years, systems were developed to use X-rays for diagnosis, and by 1898, doctors were using radiation to treat cancer.

Radiation therapy works by shrinking tumours and killing cancer cells. External beam radiation delivers radiation from outside the body, while internal radiation involves placing radioactive material near the tumor.

Over time, advances in technology and safety have made radiotherapy more precise, reducing side effects and improving survival rates.



There are THREE methods of treatment using radiation to treat cancer. These are:

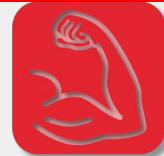
- i) External Beam Radiation Therapy - high-energy rays are directed at the tumour
- ii) Internal Radiation Therapy - radioactive material is placed inside or next to the tumour.
- iii) Systemic Radioisotope Therapy - radioactive liquids are swallowed or injected into the bloodstream.

Today, around half of all cancer patients receive radiotherapy as part of treatment.

Why was Roentgen’s discovery so important to modern surgery?



1. In your opinion, what do you think was the most significant medical development since 1900? Explain
The impact on the world of medicine



2. Explain which factors are linked to your answer to Q1 (*Communication, Government, War, Science and Technology, Chance, Religion and Individual*)

3. Explain which **factor** you believe was the most important to medical developments from 1900 to present.



Give three reasons from this lesson why surgery success rate is higher now than in 1900
Challenge, rank your reasons in order of importance