

‘There was a revolution in medicine during the Age of Revolution (1775 – 1848)’. From the evidence you have here, do you agree?

Suitable for students aged 14-16

The following enquiry can be undertaken as described or adapted to suit the teaching and learning needs of your students. Students can undertake their enquiry individually, in pairs or in small groups. Images can be projected onto the whiteboard, printed or viewed on computers or tablets. Students can develop their own questions to interrogate the sources or use the prompt questions provided.

This enquiry explores several medical inventions and discoveries from the Age of Revolution and asks students to decide if, together, they do indeed add up to a ‘revolution in medicine.’

It can also form the basis of an enquiry into whether students think there was a ‘revolution in medicine’ in the Victorian period.

Spend some time reviewing medicine in the mid 1700s.

Discuss the notion of revolution. What do students think it means? Can they give any examples of revolutions or something that’s revolutionary?

What would revolutionise their lives?

Develop a definition of Revolution together, something like: *revolution is a significant change with a lasting and often far-reaching impact on a place or people’s lives.*

Does revolution always change things for the better?

Then:

1. Waterloo teeth

Show students the Waterloo teeth ageofrevolution.org/200-object/waterloo-teeth-1815-2/ and ask them to answer the questions simply from looking closely at the image:

- What do you think these are?
- What do you they they're made from?
- What sort of person might they have belonged to?

Students can read the Waterloo teeth notes and conduct further research to check their answers and find out more:

- Why did so many people lose their teeth in the late 1700s and early 1800s?
- Would they have wanted to wear these?
- In their opinion, were 'Waterloo Teeth' a revolution in medicine?
- Why? Why not?

2. Chloroform inhaler

In the early 1800s it was very dangerous to have an operation. There were no anaesthetics and no antiseptics. A patient called Fanny Burney describes a mastectomy without any anaesthetic in 1811:

"Yet – when the dreadful steel was plunged into the breast – cutting through veins – arteries – flesh – nerves – I needed no injunctions not to restrain my cries. I began a scream that lasted unintermittingly during the whole time of the incision – and I almost marvel that it rings not in my ears still! So excruciating was the agony."

Fanny Burney, letter to her sister Esther, quoted in 'The History of Medicine', by Mark Jackson

Show students the Chloroform inhaler ageofrevolution.org/200-object/chloroform-inhaler/. They can read the Chloroform inhalers notes and conduct further research to answer the questions:

- What is chloroform?
- How did Dr Simpson use it?
- How did he discover its usefulness?
- In their opinion, were chloroform and chloroform inhalers a revolution in medicine?

3. Earl of Uxbridge’s prosthetic leg

Show students the images of the Earl of Uxbridge’s prosthetic leg ageofrevolution.org/200-object/artificial-leg-of-earl-of-uxbridge/. Ask them to answer the questions from looking closely at the main image and different views:

- What do you think the different parts were made from?
- Thinking about the time period, what might have caused the loss of the Earl of Uxbridge’s own leg?
- How might this prosthetic have felt to wear and walk with?

Students can read the Earl of Uxbridge’s prosthetic leg notes and conduct research to find out more:

- Which later, major world event led to developments in prosthetic limbs?
- In their opinion, was the Earl of Uxbridge’s prosthetic leg a revolution in medicine?

4. Vaccination

Students can look at the Vaccinator ageofrevolution.org/200-object/weir-vaccinator-europe-1831-1870/, read the Vaccinator notes and conduct further research if necessary. In their opinion, were Edward Jenner and his smallpox vaccination a revolution in medicine?

Students could present their findings in a table like this one:

Medical innovation and date	What did it do?	Why was it revolutionary?	How many people did it/could it impact on?	What is its impact today?

Students then decide which of these four innovations had, in their opinion, the biggest impact on medicine in the Age of Revolution. Which had the least? How did they go on to impact medicine and



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people's lives throughout the rest of the Victorian period? What other medical innovations were there during Victorian times? What impact did these innovations have?

Students decide whether these four items together add up to a revolution in medicine. Can they truly answer the question, or do they need more evidence?

Useful links

National Portrait Gallery: A Picture of Health timeline - www.npg.org.uk/learning/a-picture-of-health/

Wellcome collection - wellcomecollection.org/

Index of London Medical Museums - medicalmuseums.org/

National Museums Scotland: Science and Technology Collections - www.nms.ac.uk/explore-our-collections/stories/science-and-technology/made-in-scotland-changing-the-world/