Subject : Junior Cycle History
Teacher : Niall Lenehan

LESSON 14
Patterns of change: The industrial revolutions of the 18th and 19th centuries – CBA 2

Learning intentions

1. Explore how new technology contributed to technological change.

2. Understand patterns of change across a number of different fields.

3. Understand how to complete CBA 2.

3.11 explore the contribution of technological developments and innovation to historical change.

3.14 illustrate patterns of change across different time periods in a chosen theme relating to life and society (such as, Crime and punishment; Food and drink; Work and leisure; Fashion and appearance or Health and medicine).

Key words – define these

Industrial revolution

Technology

Public Health

Industry
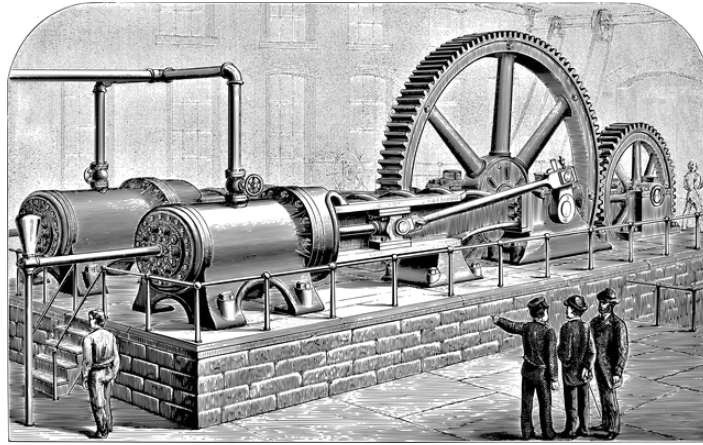
Anaesthetics

Capital offences

Historical Change

Steam power

A growth in industry

- In the early 18th century, Britain was an **agricultural country**.

- From 1750 onwards, Britain went through the **industrial revolution** as factories began popping up throughout the country.

- This resulted in many **patterns of change** in society which we will study in this lesson.

The Steam Engine and Technological Change

- The invention of the **steam engine** contributed greatly to historical change. Steam power would be used to **power machines in factories**.

- **Thomas Newcomen** invented the first steam engine. This was further improved by **James Watt**.

- The steam engine powered new machines such as **Cartwright's power loom** which speeded up the manufacture of cloth.

- This led to the **growth of large factories** which produced cloth around Britain.

- Many cities built up around these factories.

An early steam engine

The steam engine and railways

- Railways began to grow around Britain which greatly **speeded up transport**. These railways had many impacts:

- Fast, cheap reliable transport.

- Growth in tourism

- Growth of towns and cities

- Growth of industry

An early railway line

Crime and Punishment during the industrial revolution

- Improved food, healthcare and sanitation during the industrial revolution meant that Britain's population increased from **7 million to 42 million by 1900**.

- Many of these people lived in **overcrowded slums** in cities.

- As a result of the increase in population, there was also an increase in crime rates.

Industrial revolution era slum

- By the 18th centuries, Britain began to harshly punish those who committed crimes, often by execution. This became known as the **Bloody Code**.

- Small crimes such as livestock theft, and robbery were punished by death. This was an outdated system and did not work as crime rates remained high.

- Sir Robert Peel would campaign to change these outdated punishments.

- In 1829, the **first professional police** force was set up in Britain. They were set up by Robert Peel and were nicknamed, **The Peelers**.

The Peelers

A change in Crimes

- New crimes developed due to a changing and developing society.

- As more and more businesses, banks and factories were set up, they became the **targets for burglaries.**

- **Scams and corruption** became common among business and factory owners. An increased population resulted in an increase in **theft and house burglaries**.
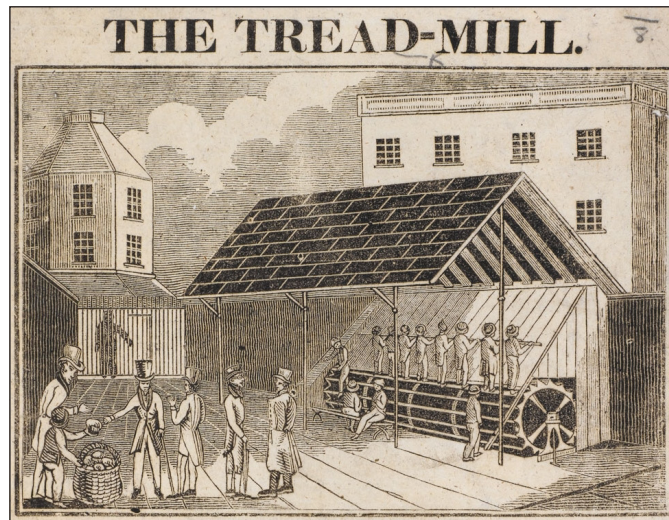
A change in punishments

- New punishments for crimes were developed in the 19th century.

- **Capital punishment** was replaced with punishments that matched the crimes.

- **Transportation** became a new form of punishment – This was where prisoners were sent to Australia to work for free. Almost 200,000 criminals were sent here.

- **Prisons** eventually replaced transportation.

An early railway line

- Prisons began to be reformed under the **Gaols Act (1823)**. Prisoners were now separated by gender and severity of their crime.

- New prisons were built such as **Millbank Prison** were built. The number of prisons also increased.

- Prisoners had to carry out hard labour in total silence. They also were kept alone in cells which were extremely uncomfortable.

The Thread mill was used as an early form of punishment for prisoners

- The most severe crimes were punished by **public hangings** to act as a deterrent to criminals.

- Public hangings were eventually outlawed in 1868 as jeering crowds often laughed at the spectacle.

Recap exercise 14.1

Q1. What was Britain like in the early 18th century?

Q2. How did the steam engine contribute to technological change? Who invented the steam engine?

Q3. What was the British population by 1900?

Q4. Explain one impact as A result of the increased population?

Q5. How did crimes change in Britain?

Q6. How did punishments change in Britain?

Changes in health and medicine

- Many changes in health and medicine were made in the 19th century. Doctors began to understand what caused certain diseases.

- German physician **Robert Koch** was one of the founders of bacteriology. He discovered how to distinguish harmful bacteria from good bacteria.

- He discovered **the anthrax disease and the bacteria responsible for tuberculosis and cholera**.

- Viruses were also discovered which meant steps could be taken to stop and contain the spread.

Improvements in diagnosing and curing

- Inventions such as the **microscope and stethoscope** helped doctors to diagnose ailments.

- **William Roentgen invented the X-ray machine** in 1895 to identify broken and fracture bones.

- **Inoculations (vaccines)** were also invented – When a small strain of a disease was injected to provide immunity.

- **Edward Jenner** developed a vaccine for smallpox by injecting people with a small dose of cowpox.

In what way is this cartoon mocking the cowpox vaccine?

The first ever X-ray of William Roentgen's wife's hand

Improvements in surgery

- Early surgery was very gruesome and dangerous as disease often set in after operations.

- The development of **anaesthetics and antiseptics** meant that surgeries could be done in a safer, pain-free way.

- **Doctor Joseph Lister (1865)** used **carbolic spray** to protect against infection.

- The creation of **sterile operating theatres** and protective clothing and face masks meant that infection and diseases dramatically reduced.

Early Surgery – Why was it so unsafe?

Changes in hospitals

- Early hospitals were often disease ridden and dangerous. Hygiene and cleanliness soon became more important.

- **Florence Nightingale** also campaigned and wrote about how nurses needed to be better trained and set up the first nurse training school in Britain.

- At first, women could only become nurses. This gradually changed as women such as **Sophia Jex-Blake** became doctors. She gained her qualification in Switzerland and would practice in Ireland.
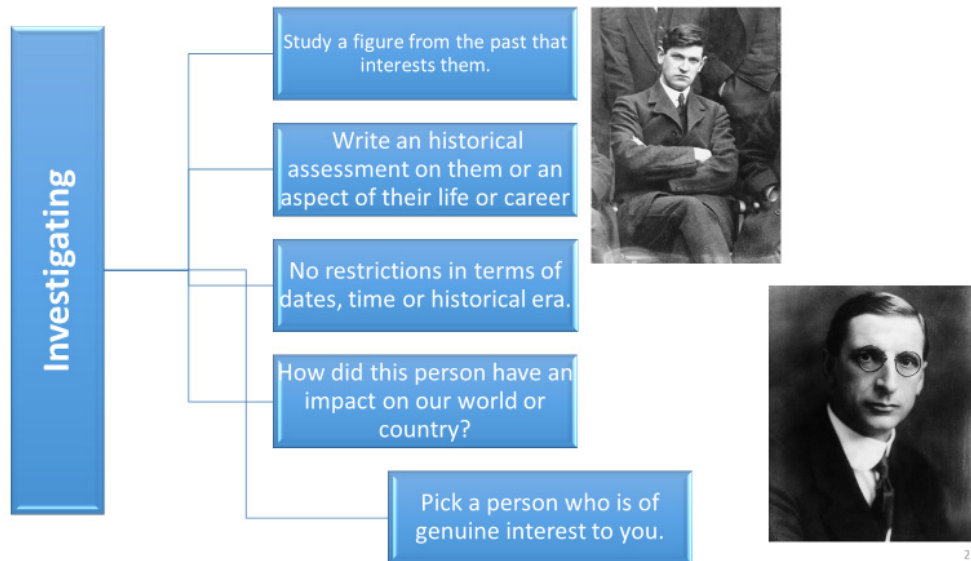
Changes in Public health

- **Edwin Chadwick** wrote a report called *Sanitary Conditions* of the Labouring Population in 1842. He highlighted how bad living conditions contributed to bad health and low life expectancy.

- The government then passed the **Public Health Act 1848** which allowed town councils to improve their towns.

Improved sanitation of towns and cities

- Towns and streets were paved.

- Street cleaning improved.

- Water supplies were transported in pipes.

- Waste and sewage disposal was introduced.

- Better housing was built.

- Vaccines became compulsory.

THE ABLE-BODIED PAUPER STREET-SWEEPER.

14.2 - CLASSROOM BASED ASSESSMENT 2 - A Life in Time

Investigating

- Study a figure from the past that interests them.
- Write an historical assessment on them or an aspect of their life or career
- No restrictions in terms of dates, time or historical era.
- How did this person have an impact on our world or country?
- Pick a person who is of genuine interest to you.

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A life in time CBA2

Title

Jesse Owens

James Cleveland "Jesse" Owens was an American track and field athlete who won four gold medals at the 1936 Olympic Games. Owens specialized in the sprints and the long jump and was recognized in his lifetime as "perhaps the greatest and most famous athlete in track and field history"

Create a series of questions that you would like to find the answers to during your research.

Their background
What were they known for?
Their Achievements
Their impact on the world

Focus on one specific part of this person's life, e.g:

- The contribution of the person to an aspect of significant historical change.

- An examination of an aspect of the person's life or career (e.g., the person's early life, or a particular phase of their career)

- An investigation of what might have influenced the person's beliefs/actions

- A study of an important relationship in the person's life/career.

Make sure to reference all sources used

Type of source	How to reference this source
Book	Author, title, publisher, place and date of publication.
Website	Webpage title, URL, author (if known), date accessed.
Interviewee	Name of interviewee, date of interview.
Visit	Name of location that you visited, date you visited.
Local history journal	Author, title of article, title of local history journal, volume number, date.

14.3 - Homework correction

Q1. Give two reasons why Irish emigration rates remained high after the Famine ended.

Irish emigration rates remained high after the famine due to chain migration. As Irish families established themselves in the US, their relations and next generations would also emigrate as they had links with the host country they were moving to.

Ireland also experienced war and economic hardship over the next number of decades until the middle of the 20th century. This meant that people continued to leave Ireland in search of a better life.

Q2. How many Irish-Americans were there in the United States in 2014, according to this source?

34.1 Million Irish Americans

Q3. In the dark green areas of the map above, the proportion of people claiming Irish ancestry is 16% or higher. What was one reason why Irish immigrants tended to settle in the northeastern corner of the United States?

These dark green areas are cities such as Boston and New York along the east coast. These are places where coffin ships docked. Many Irish people settled here as they did not have the money to travel further inland.

Q4. Charts below the map provide US population statistics. Explain the information about age given in the second chart.

The chart shows us that there is a high number of people in the over 65's category. This tells us that there was high levels of migration from Ireland to America during the 1950's and 60's. It also tells us that life expectancy may be high as Irish emigrants are living well into their late 60's.

Q5. Describe two challenges that faced Irish Famine emigrants when they arrived in the United States in the mid-1800s.

Two challenges faced by migrants were poverty and social acceptance. Most migrants had no money as they had spent all they had on the passage to America. This meant that they were forced to live in poor conditions and work dangerous low paying jobs as they could not get anything better.

Early Irish emigrants were not accepted by locals upon landing in America. This was made hard by not knowing how to speak the English language. They experienced racism as a result as Americans viewed them as drunks who lacked intelligence. They also experienced religious discrimination by the mainly Protestant American peoples.