

THE INDUSTRIAL REVOLUTION

Activity 1:

Before you watch the film find out the meaning of the following words or verbs:

- to harness
- powdered by water
- coal powdered
- fuel
- steam
- clothing
- affordable
- manufactured goods
- wealth
- pollution
- exploitation
- mill (cotton mill)
- slums
- trade unions
- flax farmers
- yarn
- to weave
- riot
- thread
- hand loom/ power loom
- blacksmith
- replacement parts
- to fix

Activity 2 : watch the film

<https://www.youtube.com/watch?v=d4joqYycnqM>

And answer the following questions:

1. When did the Industrial Revolution (I.R.) start in England??
2. What events are connectd to the I.R.?
3. Where did most people live before the I.R.?
4. Gow did they make a living?
5. What were the three main social classes?
6. Did people travel much?
7. How did people get most of the thngs they needed?
8. Did they need clocks or watches? Justify your answer.
9. Could people write or read? Why? Why not?
10. How about life expectancy?
11. What was the first industry to undergo industrialisation'
12. What was "cottage industry"?
13. How was the manufacture of cloth organised before the I.R.?
14. How did merchants organise the production of cloth?
15. Name some of the machines that changed the systems of production.
16. About how many people could a machine replace?
17. What was the consequence of the introduction of the sinning jenny'
18. What happened in England in 1811?
19. Where were the first factories built?
20. Give a definition of "factory".
21. What social revolution did factories cause?
22. How did family life change?
23. Did clocks and bells become essential? Why?
24. How did th I.R. occur in America?

25. What did Samuel Slater do?
26. What people did Slater employ in his mill?
27. What machine was developed by Eli Whitney ?
28. How did the introduction of this machine influence slavery?
29. What genial idea did Eli have?
30. What were the centres of America's I.R.?
31. What four factors favoured the rise of industries?
32. Describe people's working conditions in the factories.
33. What role did the immigrants have?
34. How did transport change?
35. How did the introduction of machinery influence agriculture.
36. What were the environmental effects of industrialisation?
37. How did the life of workers and their families change in time?
38. What new class appeared.

Activity 3: read the text about life in industrial cities.

The Industrial Revolution witnessed a huge growth in the size of British cities. In 1695, the population of Britain was estimated to be 5.5 million. By 1801, the year of the first census, it was 9.3 million and by 1841, 15.9 million. This represents a 60% growth rate in just 40 years. Manchester, as an example, experienced a six-times increase in its population between 1771 and 1831.

As enclosure and technical developments in farming had reduced the need for people to work on farmland, many people moved to the cities to get accommodation and a job. These cities were not prepared for such an influx in such a short period of time and cities such as Birmingham, Liverpool, Manchester etc. (all vital to the Industrial Revolution) suffered problems not witnessed anywhere else in the world at this time.

These cities needed cheap homes as the Industrial Revolution continued to grow. There were few building regulations then and those that did exist were frequently ignored. Builders had a freehand to build as they wished. Profit became the main motivator for builders. They knew that those coming to the cities needed a job and somewhere to live. Therefore, a house was put up quickly and cheaply – and as many were built as was possible. The Industrial Revolution saw the start of what were known as **back-to-back** terrace housing. These had no garden and the only part of the building not connected to another house would be the front (and only) entrance (unless you were lucky enough to live in the end of the terrace). In Nottingham, out of a total of 11,000 homes in the 1840's, 7,000 were back-to-back.

The building material used was the cheapest a builder could find. The finished homes were damp and families who could only afford cellar dwellings lived in the worst possible conditions.. None of these homes was built with a bathroom, toilet or running water. You either washed in a tin bath in the home with the water being collected from a local pump or you simply did not wash. Many didn't wash as it was simply easier.

There would be a courtyard between each row of terraces. Waste of all sorts from the homes was thrown into the courtyard and so-called night-men would collect this at night and dispose of it. Sanitation and hygiene barely existed and throughout the eighteenth and nineteenth centuries the great fear was a cholera, typhus or typhoid epidemic.

Toilets would have been nothing more than cesspits. When these were filled they had to be emptied and what was collected was loaded onto a cart before being dumped in a local river. This work was also done by the night-men. Local laws stated that their work had to be done at night as the stench created by emptying the cesspits was too great to be tolerated during the day.

When the great social reformer Lord Shaftesbury visited one house, he went into the cellar – where a family was living – and found that the sewage from a nearby cesspit had leaked right under their floor boards.

A block of 40 houses would have possibly 6 toilets for all persons. It is estimated that on average 9 people lived in one house, which would mean that 6 toilets served 360 people! Another problem was that it was the responsibility of the landlord of the house to pay to have cesspits emptied and they were never too enthusiastic to do this. One cesspit cost £1 to empty. As the average rent was 2 shillings a week, this equalled 5 weeks rent. No-one in local

authority enforced the law and as a result, courtyards could literally flood with sewage. Drainage systems would have changed all of this but they cost money. Drainage pipes had to be made out of brick as no pipes existed then. One foot of brick drainage pipe cost 11 shillings. The poor could not pay this type of money and the wealthier members of a city were not willing to pay for such an expensive item if it did not benefit them. Liverpool had a drainage system built but only in the areas where the rich merchants and businessmen lived. None existed in the areas where the poor lived. By 1830, 50% of Manchester had no drainage system. Fresh water supplies were also very difficult to get in the poor areas. With no running water supplies, the best people could hope for was to leave a bucket out and collect rainwater. Some areas were lucky enough to have access to a well with a pump but there was always the chance that the well water could have been contaminated with sewage from a leaking cesspit. Those who lived near a river could use river water. However, this is where night-men emptied their carts full of sewage and where general rubbish was dumped. Any water collected would have been diluted sewage.

Poverty was often accompanied by crime and vice: the streets were crowded with beggars, thieves and even murders were not unusual.

Prostitution existed in England long before the Industrial Revolution, but the conditions created by the urbanization and changes in society during the 1700s-1800s caused it to become a national problem. Brothels, or Whore Houses, had always been present in urban centers throughout England, but most men and women married young and began their families without living alone in cities for long. However, the Industrial Revolution led women to need to work in order to support their families. The huge increase in population, urban poverty, and desperation increased the demand for prostitutes and the amount of women willing to degrade themselves for money.

Activity 4

Now watch the film :

<https://www.youtube.com/watch?v=OF7-vN-aLOM>

and read the text below:

WORKING CONDITIONS

The working conditions were terrible during the Industrial Revolution. As factories were being built, businesses were in need of workers. With a long line of people willing to work, employers could set wages as low as they wanted because people were willing to do work as long as they got paid. People worked fourteen to sixteen hours a day for six days a week. However, the majority were unskilled workers, who only received about \$8-\$10 dollars a week, working at approximately 10 cents an hour. Skilled workers earned a little more, but not significantly more. Women received one-third or sometimes one-half the pay that men received. Children received even less. Owners, who were only concerned with making a profit, were satisfied because labor costed less.

Factories were not the best places to work. The only light present was the sunlight that came through the windows. Machines spit out smoke and in some factories, workers came out covered in black soot by the end of the day. There were a plethora of machines with not many safety precautions. This resulted in many accidents. The workers only received a break for lunch and a break for dinner.

ART

Paintings of the landscape that was affected by the Industrial Revolution was a very popular subject. In the example below you can see some major effects to the landscape because of the buildings and factories. It looks very overwhelming, especially with the excessive smoke coming from the chimney and the many workers surrounding it.



Coalbrookdale by Night, 1801, Philip James De Loutherbourg

Above is a painting by Philip de Louthenbourg who represented the newly industrialized village of Shropshire in western England. The raging blaze from the factory is in deep contrast with an idyllic woodland and rustic landscape. The painting captures the artists' image of a particular moment in time while the dark colors used to paint the simple rural inhabitants are almost overwhelmed by the burst of bright light that draw the viewer's attention to the center of the painting, away from the inhabitants and instead toward the industrial flames. The forces produced by the new forms of energy inspire both terror and fascination. The mood of painting suggests Loutherbourg viewed the industrialization of England negatively. However, the painting records the transformation of England's economy from local and agrarian to one of increased productivity, a rapidly growing economy, and connected to the world through trade.

Other painters reacted to the ugliness of the industrial landscape turning to nature as a source of inspiration. For example the Romantic Turner, who represented man's struggle against the forces of nature.



Or Constable, who was influenced by the new science of meteorology and concentrated on the study of cloud formation, ignoring the problems caused by the I.R.. His paintings represent nature with the same purity as Wordsworth's poetry.



For further information about the development of Art see:

<http://www.concisewesternciv.com/arth/ar11.html>

LITERATURE.

The I.R. was the offspring of the Age of Reason, an age dominated by an optimistic view of the future where science and technology would solve man's economic problems and lead to a perfect society based on equality and freedom.

But I.R. did not bring happiness; on the contrary it deepened the existing social contrasts and destroyed traditional family patterns of living. Most artists reacted to mechanization and the squalor it had caused. The anti-scientific reaction found its main voice in the philosophy of Jean-Jacques Rousseau, who claimed the supremacy of Nature over science and inventions, which on the contrary brought corruption and unhappiness.

These ideas became the basic themes of the **Romantic** Movement, which dominated all forms of artistic expression in the early 19th century. In Britain the greatest Romantic poets were Wordsworth, Coleridge, Byron, Shelley and Keats.

Social critics such as Thomas Carlyle, John Ruskin and Matthew Arnold examined the social, culture and environmental changes caused by the I.R. and condemned industrialization as a source of evil and a domination of machines over man.

The novelist Charles Dickens provided a realistic picture of modern working conditions especially of child labour in his novels "Hard Times", "Oliver Twist" and "Bleak House".