Working Conditions in Factories

**Long working hours**: normal shifts were usually 12-14 hours a day, with extra time required during busy periods. Workers were often required to clean their machines during their mealtimes.

**Low wages**: a typical wage for male workers was about 15 shillings (75p) a week, but women and children were paid much less, with women earning seven shillings (35p) and children three shillings (15p). For this reason, employers preferred to employ women and children. Many men were sacked when they reached adulthood; then they had to be supported by their wives and children.

**Cruel discipline**: there was frequent "strapping" (hitting with a leather strap). Other punishments included hanging iron weights around children's necks, hanging them from the roof in baskets, nailing children's ears to the table, and dowsing them in water butts to keep them awake.

**Fierce systems of fines**: these were imposed for talking or whistling, leaving the room without permission, or having a little dirt on a machine. It was claimed that employers altered the time on the clocks to make their workers late so that they could fine them. Some employers demanded that their overseers raise a minimum amount each week from fines.

**Accidents**: forcing children to crawl into dangerous, unguarded machinery led to many accidents. Up to 40 per cent of accident cases at Manchester Infirmary in 1833 were factory accidents.

**Health**: cotton thread had to be spun in damp, warm conditions. Going straight out into the cold night air led to many cases of pneumonia. The air was full of dust, which led to chest and lung diseases and loud noise made by machines damaged workers' hearing.

**Parish apprentices**: orphans from workhouses in southern England were "apprenticed" to factory owners, supposedly to learn the textiles trade. They worked 12-hour shifts, and slept in barracks attached to the factory in beds just vacated by children about to start the next shift.
Working conditions in mines

- **Trappers** as young as four years old sat all day in the dark, opening the doors for the coal trucks to pass through.

- Young **putters** pushed tubs and children as young as six carried coal for the hewers. Women **hurriers** pulled tubs with a chain that went around their middles and between their legs.

- **Hewers** cut the coal with pickaxes in seams only 18 inches high.

- **Wages were so low** that there were stories of pregnant women giving birth down the pit one day and being back at work the next.

- There were stories of **brutal discipline measures**. Miners were paid by the tub and if their tub was underweight, they were not paid. There were fierce fines, and some miners ended a week's work owing the money to the mine owner.

- **Accidents** such as roof falls, explosions, shaft accidents and drowning were frequent.

- If a man joined a **trade union**, he was not only sacked but also blacklisted by all the mine owners in the area so he became unemployable. Many employees were required to sign "the Document" promising they would not join a union.

- In some mines, especially in Scotland, a miner had to sign "the Bond" before he was given a job, in which he promised not to leave for another job.
Living conditions in cities

- **Pollution**: coal was used to heat houses, cook food and heat water to produce steam to power machines in factories. The burning of coal created smoke, which led to terrible pollution in the cities.

- **Overcrowding**: due to large numbers of people moving to the cities, there were not enough houses for all these people to live in. Low wages and high rents caused families to live in as small a space as possible. Sometimes whole families lived in one room.

- **Disease**: typhus, typhoid, tuberculosis and cholera all existed in the cities of England. Cholera reached England for the first time in 1830, and there were further major epidemics in 1832 and 1848. Overcrowding, housing of a low standard and poor quality water supplies all helped spread disease.

- **Waste disposal**: gutters were filled with litter and the streets were covered in horse manure, collected by boys to sell to farmers. Human waste was discharged directly into the sewers, which flowed straight into rivers. In London, Parliament had to stop work because the smell from the Thames became too much.

- **Poor quality housing**: houses were built very close together so there was little light or fresh air inside them. They did not have running water and people found it difficult to keep clean. Houses often suffered from damp due to their thin walls and roofs made out of cheap materials. Many households had to share a single outside toilet that was little more than a hole in the ground.

- **Lack of fresh water**: people could get water from a variety of places, such as streams, wells and stand pipes, but this water was often polluted by human waste.
Growing Class Tension

**Increasing Gap between Classes:** The Industrial Revolution made drastic changes on the lives of individuals. Two classes that benefited from it were the "middle" and “upper” classes. These two classes were composed of people that had wealth and success.

The **upper class** was made of landowners and aristocrats – the “Old Wealth”, who resented the new wealth of the middle class.

The **middle class** was composed of businessmen and other professionals, the “New Wealth”. The larger the Industrial Revolution grew, the more powerful these individuals became. Individuals and groups formed new libraries, schools, and universities because there was a sudden need for education (possibly due to the increase in population).

The middle and upper classes had better food and housing, which led to fewer diseases and longer living among these groups. Since these classes were treated so well, their population grew and thus had minimal difficulty living during the Industrial Revolution.

**The Working Class**, in contrast with the middle class, was not well off. In the working class, many were replaced in factories by machines. But on the other hand, many also gained new jobs in factories working with machinery. The average adult worker worked quite often: five to seven days of the week, for more than half the day per shift. Children as young as fifteen worked for minimal wages. Some of the children became deformed or crippled due to their work, which was often. Most workers worked for relatively low wages due to their incapability to produce goods. The women and children were not paid as much as the men were. The housing was not desirable either; there was frequent overcrowding, unsanitary features and a lot of diseases. What also made life difficult during the Industrial Revolution was that there were limited privileges such as few people voted, nor were they allowed to do anything to improve their working condition that was legal. The amount of carbon dioxide increased two-fold as people moved closer to factories hoping to obtain employment. Resources started diminishing, and the use of pesticides and hazardous chemicals began to increase.
Effects of the Industrial Revolution

**Working Conditions:**
1. New Jobs
2. Factories were dirty, unsafe, & dangerous
3. Harsh discipline by the factory boss

**Long Term:** Workers won higher wages, shorter hours, and better conditions after years of reform.

**Social Classes:**
1. Factory Workers overworked & underpaid
2. Overseer & skilled workers = middle class
   Owners & merchants = upper middle class
3. Upper class resented middle class, who
   Became wealthier than them

**Long Term:** Standard of living generally rose, in time.

**Size of Cities:**
1. Factories brought job seekers to cities
2. Urban areas doubled 3X and 4X in size
3. Cities specialized in certain industries

**Long Term:** Eventually, suburbs grew as people fled crowded cities.

**Living Conditions:**
1. Cities lacked sanitary & building codes
2. Housing, water & social services were scarce
3. Epidemics swept through cities

**Long Term:** Housing, diet and clothing eventually improved.
Industrial Development in the U.S.

**Resources:**
- Fast moving rivers
- Coal and iron ore
- Laborers; farmers and immigrants

**War of 1812:**
- Great Britain blocked trade of US
- US began to produce at home

**Textile Industry 1st:**
- Immigrant from Great Britain, Slater, created spinning wheel from memory
- Massachusetts; first all-mechanized clothing factory. Women moved to factory towns for higher wages and independence

**Northeast First**
- fast moving rivers

**South**
- remained Agricultural until after Civil War

**Technological Boom**
- at end of century: **INVENTIONS**

**Railroad Development**
- transport and sell goods to distant locations
Rise of Corporations

Small businesses merge into large companies

**Corporation:** business owned by *stockholders*; the stockholders share in profits but are not personally responsible for the company debt

**Entrepreneurs,** to raise money, sell *STOCK* (rights of ownership) to their company

**Big Business:** businesses that *MONOPOLIZE* (control all parts) of a certain industry (Carnegie Steel, Standard Oil, etc.)
Continental Europe Industrializes

Slower progress of industrialization, due to troubles of the French Revolution and Napoleonic Wars.

**Belgium, France:** Iron/coal and waterways
Immigrant from Great Britain built spinning Machinery
Built steam engines and trains

**Germany:** politically divided
Built railroad to link manufacturing cities
Industry built up German military & economic Strength

**Other Continental European countries:** Industry proceeded by region throughout Europe, at different times, due to social structure, political instability, poor geography, etc.
## Rise of Global Inequality

The gap between industrialized and non-industrialized countries increased dramatically during the Industrial Revolution.

<table>
<thead>
<tr>
<th><strong>Raw Materials:</strong></th>
<th>Industrialized countries required a supply of raw materials from less developed countries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exploitation:</strong></td>
<td>Industrialized countries would take advantage of the undeveloped countries by stripping them, unfairly, of their natural resources</td>
</tr>
<tr>
<td><strong>Colonization:</strong></td>
<td>Strong, globally powerful countries such as: Great Britain, other European countries, U.S., Russia, and Japan would take over the natural resources of weaker countries</td>
</tr>
<tr>
<td><strong>Imperialism:</strong></td>
<td>Extending one country’s rule over many other lands</td>
</tr>
<tr>
<td></td>
<td>▪ Cycle of industrialization</td>
</tr>
<tr>
<td></td>
<td>▪ Resources needed</td>
</tr>
<tr>
<td></td>
<td>▪ New markets worldwide</td>
</tr>
<tr>
<td></td>
<td>Imperialism will lead to many, many problems globally, as time goes on.</td>
</tr>
</tbody>
</table>