John Kay



Flying Shuttle A machine that increased the speed of weaving Twice as fast than hand Required 3 people

James Hargreave s



Spinning Jenny

- 8 times faster than a spinning wheel
- Mass produced yarn (thread)

Richard Arkwright



Water Frame

- Uses water power to speed up the spinning process
- Needed to be near a river
- A very large machine that needed a factory

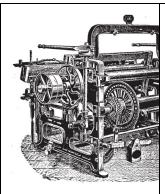
Samuel Crompton



Spinning Mule

Used in cotton mills to speed up weaving

Edward Cartwright



Power Loom

Weave cloth as quickly as thread (yarn) was being made

James Watt



Steam Engine

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Why did the Industrial Revolution begin in Britain? 1750 - 1850 (Give or take)

Key Terms/People: : Edward Jenner & Vaccination / James Watt & Steam Engine

Five Reasons:

- Population Explosion
 - Fewer famines, healthier people
 - Vaccinations to prevent smallpox
 - People moved to urban areas
- New / extra raw material
 - Cotton was imported from the colonies to make clothes
- New farming methods
 - More food produced
 - Farms did not need as many labourers
- Coal / Iron ore
 - Plentiful in Britain
- New inventions
 - James Watt's steam engine led the way for new machines

Task - (10 Marks)

Write an account on the reasons why the industrial revolution began in Britain

Agricultural Revolution:

| Associated Name | Method/New Idea | Advantages | | |
|----------------------|---------------------------------------|--|--|--|
| Charles Townshend | Four-Field System Or Norfolk System | Nutrients in the ground (Turnips) Feed for cattle for winter More food produced as a result Amount of animals increased | | |
| Robert Bakewell | Selective Breeding | Stronger animalsAnimals doubled in size | | |

| <mark>Jethro</mark> Tull | Seed Drill | Birds couldn't eat the seeds More crops grew (better yield) |
|-----------------------------|---|--|
| Cyrus McCormick | Mechanical Reaper | Reduced the time needed to harvest crops Less people needed to work so you don't need to pay them |
| The Enclosure Acts | Fields/farms were fenced to enclose them. | Reduced the spread of disease/weeds Farmers could use different methods of farming Landlords could charge high rent More quality food produced. |

Roads) (People involved /Inventions / Improvements)

Turnpike Trust

 Tolls were paid to use roads and in turn the company upgraded the roads.

Telford

- Big foundation to make roads

MacAdam

- Smaller foundation to make road quick and easy to build.
- Tar when invented was added to make the road surface smooth

Overall Improvement

Smoother & Faster to travel.

Canals (People involved /Inventions / Improvements)

Duke of Bridgewater (James Brindley)

- Bridgewater Canal
- By 1830 there was over 6,500km of man made canals.

Overall Improvement

Move more goods along man-made canals

Cheaper & easier to move iron and coal.

Railways (People involved /Inventions / Improvements)

Watts Steam Engine

Steam Boat (People involved /Inventions / Improvements)

Urbanisation

- Moving from the countryside to the town/city.
- Small farmers / cottage industry could no longer compete with new factories, forced to move for a new job.
- Cities and towns grew at a rapid rate

Living Conditions

- Many families lived in a single bedroom with up to 100 people living in one house.
- Dirty, unclean conditions. Often shared toilets.
- Polluted air from the factories.
- Rat infested streets with rubbish thrown everywhere
- Some lived in damp dirty cellars

Diseases

- Typhoid
- TB (lungs)
- Cholera

Leisure

- Only one day off a week
- Gambling / Cockfighting
- Drinking/Drunke nness
- Bare Knuckle fighting
- The FA was set up, working class soccer teams, new rules.
- 'The Rocket'

Education

- Very few went to school because they had to work to help their family
- Factory Act children under 13 had to go to school for 2 hours a week

The Factory Owners

- Factory owners
 built the house
 for their workers
 and charged
 them rent
- Ate fish beef and drank wine
- Children went to Oxford/Cambrid ge OR privately tutored

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Reforms Robert Owen

- Owned cotton mills in Scotland.
- Believed in treating workers better and in turn they would work harder.
- 1. Better pay
- 2. Betters Houses
- 3. Built Schools for Children
- Result Profits Increased

Edwin Chadwick

- Wrote a report on the Cholera outbreak of 1832 (killed 56,000 people: both rich and poor.)
- His report stated poor living conditions caused the epidemic
- The government passed the Public Health Acts and set up Local Health Boards (sewers and water pipes would be built in cities)
- Result: Cities became cleaner and health of people improved.

Lord Shaftesbury

 Worked hard to get laws passed in government to improve working conditions in mines.

Factory Worker - People in History

Five Paragraphs:

1. You lived in the countryside but Moved?

Coal Miner pg264

- 2. Got a job in a textile factory: 4 or 5 points on working conditions and what you do p263 & 264.
- 3. Living conditions
- 4. Pass times on a sunday
- 5. Robert Owen and the Factory Acts/Public Health Acts