

WHS2-P1(B) Key

You are encouraged to use sources beyond your textbook and syllabus to gather more information. **Remember to properly cite all sources used in completing this project.**

Discuss the impact of the Industrial Revolution. How did Industrialization affect society? Answer the following questions in your essay:

Would You describe the Industrial Revolution as essentially positive or negative? Why?

The industrial age brought terrible hardships-low pay, dismal living conditions-the Industrial Age did have some positive effects. As demand for mass produced goods grew, mnew factories opened, which in turn created more jobs. Wages rose so that workers had enough left after paying rent and buying food to buy newspaper or visit a music hall. As the cost of railroad travel fell, people could visit family iin other towns. Horizons widened and opportunities increased,

What changes occured because of industrialization?

1. Rise In Urbanization & Poor Living Conditions:

- a. **Supporting Evidence (1st Ind. Rev):** *England had a large and relatively cheap work force because the Enclosure Movement that forced thousands of farmers off their land and into the cities (610).*
- b. **Statistical Evidence (1st Ind. Rev):** *Growth of Manchester from 17,000 in the 1730's to around 70,00 by 1801 to akmost 6.5 million in 1900) (616)*
- c. **Statistical Evidence (1st Ind. Rev):***London grew from less then half a million in 1750 ro almost 6.5 million in (617)*
- d. **Testimonial Evidence (1st Ind. Rev):** *Quote by J.P Kay (624).*
- e. **Testimonial Evidence (1st Ind. Rev):** *Dr. South Wood Smith's quote about the conditions of the two London districts that he worked in (616).*
- f. **Testimonial Evidence (1st Ind. Rev):***Friedrich Engles: The Condition Of The Working Class In England in 1814 (621)*

2. Polution Of The Environment:

- a. **Testimonial Evidence (2nd Ind. Rev):** *Charles Dicken's quote about the "London Fog" (667)*

3. Introduction Of New Social Classes:

a. Supporting Evidence (2nd Ind. Rev): *Immergence Of Three Social Classes In The Late 1800's (675)*

b. Supporting Evidence (1st Ind. Rev): *Middle Class (Bourgeoisie)*

- i. **Description:** Owned and operated the factories, mines, and rail roads. They lived comfortable lives in well-furnished homes where the wife would almost never leave the household (617).

c. Supporting Evidence (1st Ind. Rev): *Working Class (Proletariat)*

- i. **Description:** Farmers who moved into the cities to work in the factories and mines (617). They lived in very poor conditions called Tenements (618). Women, instead of men-made up the majority of the factory work force because they could be paid less and be controlled more easily (619) .

ii. Testimonial Evidence (1st Ind. Rev): *Dr. South Wood Smith's quote about the conditions of the two London districts that he worked in (616).*

iii. Testimonial Evidence (1st Ind. Rev): *Quote by J.P Kay (624).*

iv. Testimonial Evidence (1st Ind. Rev): *James Kay Shattle Wirth's quote about the working conditions.*

v. Supporting Evidence (1st Ind. Rev): *Friedrich Engles: The conditions of the Working Class in England in 1814 (621)*

vi. Supporting Evidence (1st Ind. Rev): *Thomas Mathus's Essay On The Principles of Population (622).*

- a. **Description:** Basically stated the factory system changed peoples' lives for the worse (624). Furthermore, poor family's should have fewer children to save the food supply. Finally, he did not support any government intervention on behalf of the poor (622-23).

4. New Social Roles And Liberties For Both Men & Women:

a. Supporting Evidence (1st Ind. Rev): *Women, instead of men-made up the majority of the factory work force because they could be paid less and be controlled more easily.*

b. Testimonial Evidence (2nd. Ind. Rev): *Emmeline Pankhurst Quote About Women's Suffrage (675)*

c. Supporting Evidence (2nd. Ind. Rev): *The Cult Of Domestication (675)*

5. Advancements In Manufacturing:

- a. Supporting Evidence (1st Ind. Rev): England's Textile Manufacturing Plants: "The Longhouses" (614)
 - b. Supporting Evidence (1st Ind. Rev): Abraham Darby's Smelting Process (609)
 - c. Supporting Evidence (2nd Ind. Rev): Henry Bessemer Steel Production Process (662-663)
 - d. Statistical Evidence (2nd Ind. Rev): Graph & Statistics About Global Steel Production from 1880-1910 (662)
 - e. Statistical Evidence (2nd Ind. Rev): Statistics On The increase In Germany's Total Manufacturing Output Of Steet from 1880-1910 (664).
 - f. Statistical Evidence (2nd Ind. Rev): The US's Contribution To Percentage Of The Total Amount of Manufactured Goods In The World 1890 (662)
 - g. Supporting Evidence (2nd Ind. Rev): Interchangeable Parts (663)
 - h. Supporting Evidence (2nd Ind. Rev): The Assembly Line (663)
 - i. Supporting Evidence (2nd Ind. Rev): Importance of Steel In Building the Modern Skyscrapers (664)
- 6. Advancements In Construction, Architecture, And Infrustructure.**
- a. Supporting Evidence (1st Ind. Rev): Creation Of The Turnpike System (613).
 - b. Supporting Evidence (1st Ind. Rev): The Bridge Water Canal (615)
 - c. Supporting Evidence (1st Ind. Rev): The Liverpool-Manchester Rail Road (615)
 - d. Supporting Evidence (2nd Ind. Rev): Importance of Steel In Building the Modern Skyscrapers (664)
- 7. Advancements In Transportation**
- a. Supporting Evidence (1st Ind. Rev): George Stephenson's steam powered locomotive (615)
 - b. Supporting Evidence (1st Ind. Rev): James Watt's Steam Engine (611)
 - c. Supporting Evidence (1st Ind. Rev): Robert Fulton's Steam Boat (662).
 - d. Supporting Evidence (2nd Ind. Rev): Alessandro Volta's Battery (663)
 - e. Supporting Evidence (2nd Ind. Rev): Michael Faraday & The Dynamo (663)
 - f. Supporting Evidence (2nd Ind. Rev): Nikolaus Otto's Internal combustion Engine (664)
 - g. Supporting Evidence (2nd Ind. Rev): Henry Ford & The Assembly Line (664)

- h. Supporting Evidence (2nd Ind. Rev): Orville & Wilbur Wright (664)*
- 8. Advancements In Communication,**
 - a. Supporting Evidence (2nd Ind. Rev): Samuel F. B Morse & The Telegraph (665)*
 - b. Supporting Evidence (2nd Ind. Rev): Alexander Graham Bell & The Telephone (665)*
 - c. Supporting Evidence (2nd Ind. Rev): Guglielmo Marconi & The Radio (665)*
 - d. Supporting Evidence (2nd Ind. Rev): Guglielmo Marconi Quote (665)*
- 9. Advancements In Medicine/Chemistry:**
 - a. Supporting Evidence (2nd Ind. Rev): The Use Of The First Anesthetic By An American Dentist During Surgery (609)*
 - b. Supporting Evidence (2nd Ind. Rev): Joseph Lister & The Introduction Of The First Antiseptic Methods To Reduce Women Dying During Childbirth (668)*
 - c. Supporting Evidence (2nd Ind. Rev): Alfred Nobel & The Creation Of Dynamite (663)*
 - d. Supporting Evidence (2nd Ind. Rev): Flourence Nightingale (668)*
 - e. Supporting Evidence (2nd Ind. Rev): Louis Pasteur & Germ Theory (667)*
 - f. Supporting Evidence (2nd Ind. Rev): Robert Koch's Tuberculouis Cure (668)*
- 10. Advancements Involving The Use Of Electricity:**
 - a. Supporting Evidence (2nd Ind. Rev): Alessandro Volta's Battery (663)*
 - b. Supporting Evidence (2nd Ind. Rev): Michael Faraday & The Dynamo (663)*
 - c. Supporting Evidence (2nd Ind. Rev): Thomas Edison & The Lightbulb (663)*
- 11. Advances Regarding Methods For Businesses To Aquire Capital/Funding**
 - a. Supporting Evidence (1st Ind. Rev): Creation Of The British Turnpike System (613).*
 - b. Supporting Evidence (2nd Ind. Rev) Stock (665)*
 - c. Supporting Evidence (2nd Ind. Rev) Corporations (665)*

Were all areas of the world affected by industrialization at the same time? Explain.

No, Industrialialization of a country or region required certain things to be in place before it could become industrialized. These characteristics were:

1) A large labor force and food supply to support them.

- a) **Supporting Evidence (1st Ind. Rev):** *England was able to feed it's large work force because of the advancements it made in agriculture from men like Tethro Tulle's seed drill (608).*
- b) **Supporting Evidence (1st Ind. Rev):** *England had a large and relatively cheap work force because the Enclosure Movement that forced thousands of farmers off their land and into the cities (610).*
- c) **Statistical Evidence (1st Ind. Rev):** *Growth of Manchester from 17,000 in the 1730's to around 70,00 by 1801 to almost 6.5 million in 1900) (616)*
- d) **Statistical Evidence (1st Ind. Rev):** *London grew from less then half a million in 1750 ro almost 6.5 million in (617)*
- e) **Supporting Evidence (2nd Ind. Rev):** *America's large workforce from it's constant influx of European Immigrants.*

2) Access To Large & Relatively Cheap Quantities Of Natural Resources To Support Production.

- a) **Supporting Evidence (1st Ind. Rev):** *England had large quantities of coal (612) and access to vast amounts of natural resources from it's colonies.*
- b) **Supporting Evidence (2nd Ind. Rev):** *America had vasts amounts of natural resources (660),*
- c) **Supporting Evidence (2nd Ind. Rev):** *Germany had large quantities of coal (660)*

3) Certain geographical features, infrastructure, and transportation ability to help with the importation of materials/resources and the exportation of finished products.

- a) **Supporting Evidence (1st Ind. Rev):** *England's Bridge Water Canal (615).*
- b) **Supporting Evidence (1st Ind. Rev):** *England's Turnpike System (613).*
- c) **Supporting Evidence (1st Ind. Rev):** *England's Liverpool-Manchester Rail Road (615)*
- d) **Supporting Evidence (2nd Ind. Rev):** *Robert Fulton's Steam Boat (662).*
- e) **Supporting Evidence (2nd Ind. Rev):** *America's Transcontinental Railroad.*
- f) **Supporting Evidence (2nd Ind. Rev):** *Russia had vast amounts of natural resources and an endless amount of human labor. However, they lacked the intellectual, infrastructural, and financial resources needed to*

industrialize. These factors led to Russia Industrializing at a significantly slower pace than the other European countries and America (662).

4) The availability of financial capital to invest in entrepreneurialism and research activity needed for the invention and creation of goods.

a) **Supporting Evidence (1st Ind. Rev):** *England's Turnpike System (613).*

b) **Supporting Evidence (2nd Ind. Rev):** *Jp Morgan's Financial backing of Thomas Edison's Research.*

c) **Supporting Evidence (2nd Ind. Rev):** *Russia had vast amounts of natural resources and an endless amount of human labor. However, they lacked the intellectual, infrastructural, and financial resources needed to industrialize. These factors led to Russia Industrializing at a significantly slower pace than the other European countries and America (662)..*

5) The Human/intellectual and technological resource to help to do the activities mentioned above and create new technology/products.

a) **Supporting Evidence (1st Ind. Rev):** *England had James Watt (611)*

b) **Supporting Evidence (2nd Ind. Rev):** *America had Thomas Edison (663), Robert Fulton (662), Henry Ford (664), Alexander Graham Bell (665), John D. Rockefeller (665).*

c) **Supporting Evidence (2nd Ind. Rev):** *Belgium was able to industrialize after the English businessman William Cockrill opened the first textile manufacturing plant in it in 1807 (660).*

d) **Supporting Evidence (2nd Ind. Rev):** *Russia had vast amounts of natural resources and an endless amount of human labor. However, they lacked both the intellectual and financial resources needed to industrialize. These two factors led to Russia Industrializing at a significantly slower pace than the other European countries and America (662)..*

6) Finally, a large and stable market to export large quantities of finished goods and provide enough financial revenue to sustain and this whole process.

a) **Supporting Evidence (1st & 2nd Ind. Rev):** *England and the Netherlands*

i) **Description:** Both owned colonies with large populations that could consume large quantities of finished goods.

b) **Supporting Evidence (2nd Ind. Rev):** *Germany & America*

i) **Description:** Both countries had large populations that could consume almost all of the products that they were producing.

Furthermore, they had a small amount of colonies where they could also export their excess goods.

What were the benefits and hardships brought by industrialization?

Hardships

1) As urbanization increased, people had little choice of where they could live and those living conditions quickly became unsanitary and polluted.

- a) Statistical Evidence (1st Ind. Rev): Growth of Manchester from 17,000 in the 1730's to around 70,00 by 1801 to almost 6.5 million in 1900) (616)
- b) Statistical Evidence (1st Ind. Rev): London grew from less than half a million in 1750 to almost 6.5 million in (617)
- c) Testimonial Evidence (1st Ind. Rev): Quote by J.P Kay (624).
- d) Testimonial Evidence (1st Ind. Rev): Dr. South Wood Smith's quote about the conditions of the two London districts that he worked in (616).
- e) Testimonial Evidence (1st Ind. Rev): Friedrich Engels: The Condition Of The Working Class In England in 1814 (621)
- f) Testimonial Evidence (2nd Ind. Rev): Police Officer/Photographer Jacob Riis Quote (669)
- g) Supporting Evidence (2nd Ind. Rev): Urban Renewal (668)

2) Pollution

- a) Testimonial Evidence (2nd Ind. Rev): Charles Dickens's quote about the "London Fog" (667)

3) Difficult Working Conditions

- a) Supporting Evidence (2nd Ind. Rev): Workers would occasionally threaten to revolt.
 - i) Example: The Luddite Revolts 1811-1813 (618).
- b) Supporting Evidence (1st Ind. Rev): No Labor Unions (618).
- c) Supporting Evidence (1st Ind. Rev): Creation of Child Labor Reform Laws-"Factory Acts" Passed in the early 1800's and strongly enforced by the 1840's. (620)
- d) Testimonial Evidence (1st Ind. Rev): Quote by J.P Kay (624).
- e) Testimonial Evidence (1st Ind. Rev): James Kay Shuttleworth's Quote about the working conditions of the poor in the factories (1619) (620).
- f) Testimonial Evidence (1st Ind. Rev): Friedrich Engels: The Condition Of The Working Class In England in 1814 (621)
- g) Testimonial Evidence (2nd Ind. Rev): Neil Cusack's quote about young factory girl Workers (659)

h) Testimonial Evidence (2nd Ind. Rev): Quote from the “Labor Standard” about Children working in the mines (661)

4) Sexism:

a) Testimonial Evidence (2nd Ind. Rev): Emmeline Pankhurst Quote About Women’s Suffrage (675)

b) Testimonial Evidence (2nd Ind. Rev): Elizabeth Cady Stanton Quote About Women’s Right To education (676)

c) Supporting Evidence (2nd Ind. Rev): Seneca Falls Convention & Women’s Suffrage (676)

d) Supporting Evidence (2nd. Ind. Rev): The Cult Of Domestication (675).

e) Supporting Evidence (2nd Ind. Rev): Emily Davies successfully campaigned for women to be allowed to take the entrance exam for cambridge in 1868 (677).

5) Big Business Corruption:

a) Supporting Evidence (2nd Ind. Rev): Rise of Monopolies (665)

b) Supporting Evidence (2nd Ind. Rev): Rise of Cartels (666)

c) Supporting Evidence (2nd Ind. Rev): John D. Rock (665)

d) Supporting Evidence (2nd Ind. Rev): Alfred Krupp (665-6)

e) Supporting Evidence (2nd Ind. Rev): Political Cartoon Over The Growth Of Monopolies (666)

f) Supporting Evidence (2nd Ind. Rev): Robber Barons (666)

Benefits

1) Advances in Manufacturing & Cheaper Products:

a) Statistical Evidence (2nd Ind. Rev): Statistics On The increase In Germany’s Total Manufacturing Output Of Steel from 1880-1910 (664).

b) Statistical Evidence (2nd Ind. Rev): The US’s Contribution To Percentage Of The Total Amount of Manufactured Goods In The World 1890 (662)

2) Rise Of Various Social Classes & Ones Standard Of Living:

a) Supporting Evidence (2nd Ind. Rev): Immergence Of Three Social Classes In The Late 1800’s (675)

b) Supporting Evidence (2nd Ind. Rev): Importance of Steel In Building the Modern Skyscrapers (664)

c) Supporting Evidence (2nd. Ind. Rev): The Cult Of Domestication (675)

d) Supporting Evidence (2nd Ind. Rev): Thomas Edison & The Lightbulb (663)

- e) Supporting Evidence (2nd Ind. Rev): Alexander Graham Bell & The Telephone (665)
 - f) Supporting Evidence (2nd Ind. Rev): Guglielmo Marconi & The Radio (665)
- 3) Advances Of Transportation:**
- a) Supporting Evidence (2nd Ind. Rev): Henry Ford & The Assembly Line (664)
 - b) Supporting Evidence (2nd Ind. Rev): Orville & Wilbur Wright (664)
- 4) Expansion Of Public & Higher Education:**
- a) Supporting Evidence (2nd Ind. Rev): Teacher training schools were first established in France on 1879 (677).
 - b) Supporting Evidence (2nd Ind. Rev): Compulsary Education of young boys and girls began in England(1881) and shortly after in America (677).
 - c) Supporting Evidence (2nd Ind. Rev): Establishment of more colleges and Universities along with the addition of new courses like chemistry, physics and engineering (677).
 - d) Supporting Evidence (2nd Ind. Rev): Higher education for women also became accessible with the establishment of several all women colleges like Bedford College(England) and Mount Holy(United States) (677).
 - e) Supporting Evidence (2nd Ind. Rev): Emily Davies successfully campaigned for women to be allowed to take the entrance exam for cambridge in 1868 (677).
- 5) Improvements In World Health & Medical Practices:**
- a) Statistical Evidence (1st Ind. Rev): Growth of Manchester from 17,000 in the 1730's to around 70,00 by 1801 to almost 6.5 million in 1900) (616)
 - b) Statistical Evidence (1st Ind. Rev): London grew from less then half a million in 1750 ro almost 6.5 million in (617)
 - c) Supporting Evidence (2nd Ind. Rev): The Use Of The First Ancesthetic By An American Dentist During Surgery (609)
 - d) Supporting Evidence (2nd Ind. Rev): Joseph Lister & The Introduction Of The First Antiseptic Methods To Reduce Women Dying During Childbirth (668)
 - e) Supporting Evidence (2nd Ind. Rev): Louis Pasteur & Germ Theory (667)
 - f) Supporting Evidence (2nd Ind. Rev): Robert Koch's Tuberculouis Cure (668)

What social, political, and economic developments occurred because of industrialization?

Social

1) Creation Of New Social Classes:

a) Supporting Evidence (1st Ind. Rev): Middle Class (Bourgeoisie)

- i) **Description:** Owned and operated the factories, mines, and rail roads. They lived comfortable lives in well-furnished homes where the wife would almost never leave the household (617).

b) Supporting Evidence (1st Ind. Rev): Working Class (Proletariat)

- i) **Description:** Farmers who moved into the cities to work in the factories and mines (617). They lived in very poor conditions called Tenements (618). Women, instead of men-made up the majority of the factory work force because they could be paid less and be controlled more easily.

(1) Testimonial Evidence (1st Ind. Rev): Dr. South Wood Smith's quote about the conditions of the two London districts that he worked in (616).

(2) Testimonial Evidence (1st Ind. Rev): Quote by J.P Kay (624).

(3) Testimonial Evidence (1st Ind. Rev): James Kay Shattle Wirth's quote about the working conditions.

(4) Supporting Evidence (1st Ind. Rev): Friedrich Engles: The conditions of the Working Class in England in 1814 (621)

(5) Supporting Evidence (1st Ind. Rev): Thomas Mathur's Essay On The Principles of Population (623-24).

- (a) **Description:** Basically stated the factory system changed peoples' lives for the worse (624).

Furthermore, poor family's should have fewer children to save the food supply (623)

c) Supporting Evidence (2nd Ind. Rev): Immersion Of Three Social Classes In The Late 1800's (675)

2) Rise In Religion & Ideological Movements That Promoted A Better & More Moral Society.

a) Supporting Evidence (1st Ind. Rev): John Wesley's Methodism Movement (618).

- i) **Description:** A movement with the goal to encourage followers to adopt sober and moral ways that would ultimately lead to a better society.
- b) **Supporting Evidence (1st Ind. Rev): Utilitarianism Movement**
 - i) **Description:** The view that the ultimate goal of society is to be “*The greatest happiness for the greatest number of its citizens*” (623).
- c) **Supporting Evidence(1st Ind. Rev): Jeremy Bentham (623-624)**
 - i) **Description:** British Philosopher and Economist That Was A Strong Advocate Of Utilitarianism.
- d) **Supporting Evidence (1st Ind. Rev):Robert Owen’s Utopian Society in Lanark Scotland (624)**
 - i) **Description:** Robert Owen was a British Social Reformer Who Transformed His Mill Into A Model Village In An Attempt To Create A Utopian Society Where All The Work Was Shared And Property Community Owned (625)

3) Rise of Nialism & An Overall Negative Outlook On The Present Society And The Future.

- a) **Supporting Evidence (1st Ind. Rev): Thomas Mathew’s “Essay On The Principle of Populations (622)**
 - i) **Description:** Basically stated the factory system changed peoples’ lives for the worse (624). Furthermore, poor family’s should have fewer children to save the food supply. Finally, he did not support any government intervention on behalf of the poor (622-23).
- b) **Supporting Evidence (1st Ind. Rev): David Ricardo’s Book “Iron Law Of Wages.” (622-23)**
 - i) **Description:** Claimed that the wage increases of the industrial revolution were futile because increases would only cover the cost of necessities. This was because when wages are high, families often had more children instead od raising the family’s current standard of living. Finally, he also did not support any government intervention on behalf of the poor (623-24).

Political/Economic

1) Laissez-Faire Economics:

- a) **Supporting Evidence (1st Ind. Rev): Thomas Mathew’s “Essay On The Principle of Populations (622)**

i) **Description:** Basically stated the factory system changed peoples' lives for the worse (624). Furthermore, poor families should have fewer children to save the food supply. Finally, he did not support any government intervention on behalf of the poor (622-23).

b) **Supporting Evidence (1st Ind. Rev):** *David Ricardo's Book "Iron Law Of Wages."* (622-23)

i) **Description:** Claimed that the wage increases of the industrial revolution were futile because increases would only cover the cost of necessities. This was because when wages are high, families often had more children instead of raising the family's current standard of living. Finally, he also did not support any government intervention on behalf of the poor (623-24).

2) Socialism

a) **Supporting Evidence (1st Ind. Rev):** *Utopians & Robert Owen*

i) **Description:** Robert Owen was a British Social Reformer Who Transformed His Mill Into A Model Village In An Attempt To Create A Utopian Society Where All The Work Was Shared And Property Community Owned (625).

3) Karl Marx & Scientific Socialism/Communism(625):

a) **Description:** Karl Marx was a German philosopher who was opposed to both capitalism and utopianism. However, he did support socialism. Marx developed his own theory of "Scientific Socialism." Which he claimed was based on a scientific study of history (625).

b) **Description:** Marx would eventually develop a form of socialism called "Communism." Which is based on the idea that an economic class struggle will eventually occur. Where the working class (proletariat), violently overthrows the ruling class (Bourgeoisie) resulting in a classless society where the government owns the means of production (625).

i) **Supporting Evidence (1st Ind. Rev):** *The Communist Manifesto* (625)

Grading Rubric

This project will be graded according to the following rubric. Points will be awarded according to students adherence to the following:

1	All issues have been addressed fully, with detailed evidence. Project met or exceeded the required length and completely.	Most issues were addressed in sufficient detailed. Project was of the required length and complexity.	Only some or none of the issues were addressed in sufficient detail. Project was not of the required length and complexity.	0 To 60 Points Possible
2	There were no spelling punctuation, or grammar errors.	Spelling, punctuation and grammar were adequate, with few errors.	There were several spelling, punctuation and grammar errors evident.	0 To 10 Points Possible
3	All sources were correctly cited.	Most Sources were correctly cited.	Only some or none of the sources were correctly cited.	0 To 10 Points Possible
4	Student showed creativity and understanding of the material in the presentation of the report, included supporting evidence beyond what is included in the textbook.	Student adequately presented his or her understanding of the material in this project. Little or no supporting evidence was used beyond what is included in the textbook.	Student's understanding of the material in this project is not adequately presented little or no supporting evidence was used beyond what is included in the textbook.	0 To 20 Points Possible
Total Points Possible				

Row One Comments:

Row Two Comments:

Row Three Comments:

Row Four Comments: