Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_

**Invention Convention Project**

**Mr. Calderon 2016**

**ATL**

**Knowing and Understanding:** Students will demonstrate knowledge and understanding of the subject-specific content and concepts, through descriptions, explanations and examples.

**Investigating:** Students will use the methods to collect and and record relevant information.

**Communication:** Students will create a reference listand cite sources of information.

**Thinking critically**: Students will generate novel ideas and consider new perspectives by designing improvements to existing machines, media, and technologies.

**Common Core**

[CCSS.ELA-LITERACY.RH.6-8.2](http://www.corestandards.org/ELA-Literacy/RH/6-8/2/)

Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions**.**

SS.H.2.6-8.MdC:

Analyze multiple factors that influenced the perspectives of people during different historical eras.

SS.IS.4.6-8.MC:

Gather relevant information from credible sources and determine whether they support each other

[CCSS.ELA-LITERACY.SL.8.4](http://www.corestandards.org/ELA-Literacy/SL/8/4/)

Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.

**MYP Question**

How did industrialization increase the speed of social, economic, and political change in urban America?

**Task: You have been hired as an engineer to re-construct a model of an invention from the Industrial Revolution Era (1865-1915), that a museum will display. Your target audience is a museum docent. Provide a two-page in depth research-based analysis of the invention, and present your blueprint, model, and research to a museum docent.**

**For every day your project is late, 10 points will be deducted from**

**your final grade. No exceptions.**

***Invention*** *(noun): the act of inventing. A new, useful process, machine,*

*improvement, etc., that did not exist previously and that is recognized*

*as the product of some unique intuition or genius, as distinguished from*

*ordinary mechanical skill or craftsmanship.*

**Research Paper:**

Students will create a two-page in depth research-based analysis of the invention. This research paper must be computer generated in 12-point font using Times New Roman. The format of the paper should include:

* 1. A **cover page** with name, date, grade, period, title of your work, and title of the invention.
  2. **Introduction**. Must include a strong thesis statement.
  3. At least body 3 paragraphs explaining the invention:

i. Background on the Industrial Revolution Era, and how your invention fits in  
 (who, what, where, when, why).

ii. In-depth explanation of the invention and it’s creator. How does this  
 invention work? Include a detailed description of when the invention   
 was patented.

ii. How did/does this invention impact society as a whole? Did/does the   
 invention identify and address a problem or need? Identify how this

invention probably changed the outcome in history.

How did inventions drive the outcome and sustainability of the Industrial Revolution and society?

Was this invention a positive or negative change for society?

* 1. A **conclusion** of your analysis. Must be a strong summary of the overall impact of this invention.
  2. An Annotated **bibliography** (cite your work!) MLA style **(www.easybib.com or www.citationmachine.com).**

\*Please note, you can log-in to www.Questiaschools.com for your research needs.

\*You must submit your Invention Convention approval form for credit.

ANY WORK THAT IS NOT ORIGINAL (plagiarized) will receive an automatic ZERO. Be prepared to submit your work into www.turnitin.com. If you have any questions about plagiarism please see Mr. Calderon well before the deadline. This applies to all students.

**Rubric for Research-Based Analysis Paper**

|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **Needs Work**  **0-5 Points** | **Good**  **15 Points** | **Excellent**  **20 Points** |
| **Cover Page and Writing guidelines**          **/ 20 points** | Student does not provide a cover page. Student work is not computer generated in 12-point font using Times New Roman. | Student provides a cover page, but does not include all of the following: name, date, grade, period, title of the work, and title of the invention. Student meets some of the writing guidelines in 12-point font using Times New Roman. | Student provides a cover page including all of the following: name, date, grade, period, title of the work, and title of the invention. Student work is computer generated in 12-point font using Times New Roman. |
| **Introduction**    **/ 20 points** | Student does not provide an introduction to their work. | Student somewhat develops an introduction to their research-based analysis. Or, thesis statement is unclear. | Student clearly presents an introduction to their research-based analysis, including a thesis statement that demonstrates to the reader what this paper is about. |
| **Analysis of the Invention**    **/ 20 points**  SS.H.2.6-8.MdC:  Analyze multiple factors that influenced the perspectives of people during different historical eras | Student does not include paragraphs to develop their writing and include information about the inventor, or when/where the invention was invented. | Student includes some details in their paragraphs and includes information about the inventor, or when/where the invention was invented. | Students demonstrate a clear understanding of the invention utilizing details about the inventor **(who)**; **when/where** the invention was invented; and **why** it was needed. |
| **Does the invention address a problem or need?**    **/ 20 points** | Student did not make reference to a problem or need that the creation of the invention addressed. | Student *somewhat* makes reference or addressed the problem or need that the invention was created to solve a problem or make daily life easier. | Student *clearly* states the problem or need that the invention was created for in order to solve a problem or make daily life easier. |
| **Conclusion and Sources listed**  SS.IS.4.6-8.MC:  Gather relevant information from credible sources and determine whether they support each other  **/ 20 points** | Student did not provide a conclusion or their sources used in the research-based analysis. | Student provided either a conclusion or a list of sources, but did not include both in their work. | Student includes a strong conclusion to their research-based analysis and a MLA works cited page of all sources consulted. |

**Total points: / 100 points**

**Model:**

Create a blueprint and model of the invention.

1. **Blueprint**
2. Your blueprint must be a hand drawn mock-up of your model.
3. Must include numerical dimensions, materials used, and a short rough-draft of how mechanical parts will work.

**II. Model**

1. Your invention must be student-created original work. It may **not** be made from a pre-fab kit or purchased in parts that are supposed to be assembled.
2. Your model must be functional. If the original invention has moving parts, your model must move!
3. Each functioning part of your model must be labeled.
4. You must write a paragraph-long caption to accompany your model invention that summarizes your research paper for an outside audience.

**Rubric for Blueprint and Model**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description** | **Needs Work**  **(5 points)** | **Developing**  **(10 points)** | **Good**  **(15 points)** | **Excellent**  **(20 points)** |
| **Blueprint**  **/20 Points** | The blueprint seemed incomplete or chaotic with no clear plan. Many labels were missing or incorrect. | Each element had a function and clearly serves to illustrate some aspect of the invention. Most items, diagrams, graphs etc. were correctly labeled. | Each element had a function and clearly serves to illustrate some aspect of the invention. Most items, diagrams, graphs etc. were neatly and correctly labeled. | Each element in the blueprint had a function and clearly serves to illustrate some aspect of the invention. All items, diagrams, graphs etc. were neatly and correctly labeled. |
| **Model**  **/20 Points** | The model seemed incomplete or chaotic with no clear plan. Many labels were missing or incorrect. | Each element had a function and clearly serves to illustrate some aspect of the invention. several items, diagrams, graphs etc. were correctly labeled. | Each element had a function and clearly serves to illustrate some aspect of the invention. Most items, diagrams, graphs etc. were neatly and correctly labeled. | Each element in the model had a function and clearly serves to illustrate some aspect of the invention. All items, diagrams, graphs etc. were neatly and correctly labeled. |
| **Originality**  **/20 Points** | Your model is not original student work for this academic school year, | Your model is 50% original student work for this academic school year | Your model is 75% original student work for this academic school year | Your model is 100% original student work for this academic school year |
| **Caption**  **/20Points**  [CCSS.ELA-LITERACY.RH.6-8.2](http://www.corestandards.org/ELA-Literacy/RH/6-8/2/)  Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions**.** | No caption | Caption is not long enough, and/or only describes the basic aspects and functions of the model. Little to no background information about the invention is included. | Caption is one paragraph long and describes most aspect of the model and its’ function. Included is detailed background information about the invention. | Caption is one paragraph long and fully describes each  aspect of the model and its’ function. Included is detailed background information about the invention. |

**\_\_\_\_\_\_\_\_\_/80 Total Points**

**Presentation:**

You will present your research and model to an outside audience.

**Rubric for Oral Presentation**

|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **Needs Work**  **(0-10 points)** | **Good**  **(15 points)** | **Excellent**  **(20 points)** |
| **Inventor, Invention, Year invented, and Location where invention originated**  **/ 20 points** | Students do not provide examples and details to fully demonstrate knowledge about how American society was before the creation of the invention. | Students somewhat provides examples and details to fully demonstrate knowledge about how American society was before the creation of the invention. | Students provide examples and details to fully demonstrate knowledge about how American society was before the creation of the invention. |
| **Impact of the Invention**  **/ 20 points** | Students do not provide information about the use of the invention and the impact on American society. | Students somewhat understand the impact that this invention had on American society. | Students clearly understand how the creation of the invention impacted the daily lives of Americans. |
| **Thinking Critically**  **/ 20 points** | Students do not demonstrate an understanding of the invention or do not provide sufficient details in their analysis of the invention. | Students somewhat demonstrate an understanding of the invention and provide some details in their analysis that reflect an understanding of the invention. | Students demonstrate a clear understanding of the invention utilizing details in their analysis that reflect an understanding of the invention. |
| **Presentation**  **/ 20 points**  [CCSS.ELA-LITERACY.SL.8.4](http://www.corestandards.org/ELA-Literacy/SL/8/4/)  Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. | Students did not make reference to their higher-order thinking questions used in their group discussion. Students did not sufficiently analyze and evaluate the invention. | Students answered some higher-order thinking questions used in their group discussion of the invention, but lacked details in the evaluation and analysis. | Students answered all higher-order thinking questions used in their group discussion and provide a detailed analysis and evaluation of the invention. |
| **Invention (Model)**  **/ 20 points** | Student did not create a model. | Students have created a model, however are not able to explain how their model operates. | Student clearly created a model and is able to explain how their model operates. |

**Total points: / 100 points**

**POTENTIAL INVENTIONS (not comprehensive)**

air plane-1903 version(Wright brothers)

tank

portable camera

printing press

automobile (Model-T ford)

assembly line (Henry Ford)

type writer

telephone (Alexander Graham Bell)

elevator

skyscraper

phonograph

oil well

light bulb (Thomas Edison)

motion picture camera

radio

sewing machine

shoe making machine

train/railroad and sleeping car

toaster

steel(used for bridges and buildings)

vacuum

clock

engine

television

roller coaster

Ferris Wheel

carosel

bicycle

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**School \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grade/Period \_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_**

**Invention Convention Project**

**Approval Form**

**Please identify the following.**

**1.** **The Invention \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2.** **The Inventor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Resource**

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[**www.questiaschool.com**](http://www.questiaschool.com)

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[**www.chipublib.com**](http://www.chipublib.com)

**https://library.cps.edu/linkinclude.asp**

[**www.pearsonsuccess.com**](http://www.pearsonsuccess.com)