Continuation of the Revolution
Lesson Plan Associated File

Contents

Inventions of the Latter Part of the Industrial Revolution
Activity Sheet

The inventions and new processes of the first part of the Industrial Revolution, 1700-1850, looked for ways to repair tools, improve machinery, or get raw materials to the factories. After 1850, people turned to science to solve problems of manufacturing, as well as to discover new products to manufacture. Scientific research led to many inventions as well as remarkable advances in technology.

Directions:
For each of the inventions below, provide the requested information in a concise way.

1. **Interchangeable parts (Eli Whitney)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

2. **Mass Production/Assembly Line (Henry Ford)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

3. **Gasoline fueled internal combustion engine (Gottlieb Daimler)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

4. **Petroleum oil fueled internal combustion engine (Rudolf Diesel)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

5. **Electricity and electric generator (Michael Faraday)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

6. **Electric battery (Alessandro Volta)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

7. **Electric light (Thomas Edison)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

8. **Telegraph (Samuel Morse)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

9. **Telephone (Alexander Graham Bell)**
   - Catchy Headline
   - Date invented
   - Description of the invention

   - Importance of the invention

10. **Photography (Louis Daguerre)**
    - Catchy Headline
    - Date invented
    - Description of the invention

    - Importance of the invention

11. **Airplane (Wright Brothers)**
    - Catchy Headline
    - Date invented
    - Description of the invention

    - Importance of the invention

Inventions of the Latter Part of the Industrial Revolution
Activity Sheet
Key

1. Interchangeable parts (Eli Whitney)
- Catchy Headline: One Part at a Time
- Date invented: 1898
- Description of the invention
  A process that created identical parts for muskets so that anyone could assemble the parts into a finished product.
- Importance of the invention
  Allowed factories to use mass production techniques and ushered in modern manufacturing methods which revolutionized the manufacturing process

2. Mass Production/Assembly Line (Henry Ford)
- Catchy Headline: Let'um roll
- Date invented: 1913
- Description of the invention
  The product (automobile) moved down a line where workers then added their specialized part to the product. When the product came out of the end of the line it was finished.
- Importance of the invention
  The assembly line broke each job down to small tasks. It was efficient and produced more goods at a cheaper price. Workers became specialized and isolated. More products could be produced. Semi-skilled workers could be used instead of skilled workers. Workers' jobs became more tedious and monotonous.

3. Gasoline fueled internal combustion engine (Gottlieb Daimler)
- Catchy Headline: Running on Gas
- Date invented: 1872
- Description of the invention
  Gasoline-powered internal-combustion engine
- Importance of the invention
  Provided a smaller, more efficient means of power for machines, especially the automobile.

4. Petroleum oil fueled internal combustion engine (Rudolf Diesel)
- Catchy Headline: Decent Diesel Powers Up
- Date invented 1893
- Description of the invention
  Petroleum oil-fueled internal-combustion engine
- Importance of the invention
  Provided a more durable engine, which was more suitable to different applications than the gas-powered engine.

5. Electricity and electric generator (Michael Faraday)
- Catchy Headline: Faraday Shocks the World
- Date invented: 1831
- Description of the invention
  Moving a magnet through a coil of copper caused an electric current that could move through a wire.
- Importance of the invention
  Introduced the idea that electricity could be created, which led to the development of the first electric generator and the use of electricity. This provided a new source of energy for many uses in society and industry.

6. Electric battery (Alessandro Volta)
- Catchy Headline Volta's Shocking Discovery
- Date invented 1800
- Description of the invention
  Developed the so-called voltaic pile, a forerunner of the electric battery, which produced a steady stream of electricity.
- Importance of the invention
  Provided a new, portable source of electricity that did not rely on an outside source of power, like a generator

7. Electric light (Thomas Edison)
- Catchy Headline: A New Light on the Subject
- Date invented: 1878
- Description of the invention
  A carbon-fiber bulb that produced light using electricity
- Importance of the invention
  Provided an inexpensive alternative to gas lights and introduced the use of electricity for practical use in everyday life, creating whole new industries.

8. Telegraph (Samuel Morse)
- Catchy Headline: Tapping into Communications
- Date invented: 1940
- Description of the invention
  Telegraphy uses pulses of electrical current that convey information over wires. The information came in the form of Morse Code, an electronic alphabet composed of dots and dashes.
- Importance of the invention
  Improved communications and became a forerunner to the telephone. Allowed for instant communication via a network of wires that spanned continents and the Atlantic Ocean.
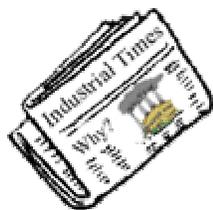
9. Telephone (Alexander Graham Bell)
- Catchy Headline: This Call's for You
- Date invented: 1876
- Description of the invention
  It was an improvement over the telegraph that involved a method of changing sound into electrical impulses and transmitting them over wires.
- Importance of the invention
  It revolutionized communications by allowing voice communications over distances for the first time.

10. Photography (Louis Daguerre)
- Catchy Headline: Smile You are on a Daguerreotype
- Date invented: 1839
- Description of the invention
  A box, containing a metal plate coated with silver iodide, was exposed to light through a small hole, which left the image on the plate. The plate was "developed" resulting in an exact duplicate of the scene.
- Importance of the invention
  It provided a method of realistically capturing events.

11. Airplane (Wright Brothers)
- Catchy Headline: The Wright Kind of Flying
- Date invented: 1903
- Description of the invention
  The airplane combined existing glider technology with the gasoline engine to allow it to fly using its own power.
- Importance of the invention
  Revolutionized travel by allowing people and cargo to cover large distances quickly. It also had many military applications.
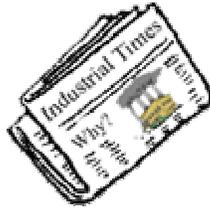
Finding Information

World Wide Web

- **Searching the Internet**
  - **Broad Topics**
    - Yahoo (www.yahoo.com)
    - Lykos (www.lykos.com)
  - **Narrow Topics**
    - Alta Vista (www.altavista.com)
    - All the Web (www.alltheweb.com)
    - Google (www.google.com)
  - **Largest Amount of the Internet**
    - Ask Jeeves (www.askjeeves.com)
    - Vivisimo (www.vivisimo.com)
    - Ixquick (www.ixquick.com)

Books

- **Contents page**
- **Index**

Checking the Information

- **Scan the information and ask**
  - **Does the source provide the necessary information?**
- **While reading, ask research questions**
  - **What facts do I need?**
  - **Does the information from the source provide the facts?**
- **Get the facts**
  - **Jot down the facts**
  - **Organize the facts to fit the problem being addressed**

Publishing Using SiteMaker

Congratulations, you have been selected to publish your article to the Internet using SiteMaker, an Internet Publishing tool. Use the following directions to gain access to SiteMaker and to publish your article.

1. Go to the Beacon Learning Center home page at http://www.BeaconLearningCenter.com
2. Click "Student Resources."
3. Choose "SiteMaker."
4. Click "Participant Section".
5. Under **Student Resources**, click "Build and Manage Reports."
6. Click "Add a New Report."
7. Click the box. Click your **school district**. Click "Next".
8. Click the box. Click your **school**. Click "Next".
9. Click the box. Click your **teacher**. Click "Next".
10. Click the box. Click your **name**. Click "Next".
11. Click the box. Click the **theme** you are writing about. Click "Next".
12. Click in the textbox. Type your password. Click "Next".
13. Click the button next to "Build a New Report."
14. Click the box. Click the **topic** you are writing about. Click "Next".
15. Read this page.
    *   If anything is wrong, click the "Change" button.
    *   If everything is correct, click the "Continue" button.
16. Click the "Add a Page" button.
17. Click in the text box. Type your **title.** Click "Next".
18. Click in the text box.
    *   Type your writing in the box. Click "Next".
    *   If your writing is on a disk, copy and paste it in the text box. Click "Next".
19. Graphics
    *   If you don't want a picture, click "No Graphic". Click "Next".
    *   If you want a picture, click "Add Graphic". Click in the circle by the picture you want. Click "Next".
20. Click in the text box. Type a short sentence about the picture. Click "Next".
21. Click "Add Sound" and click the sound you want, or click "No Sound."
22. Click "Add Movie" and click the movie you want, or click "No Movie."
23. If you used a web site when you were writing, click in the **top** text box and type in the name of the Web site. Then, click in the **bottom** text box and type the Web URL. Remember to start with http://. Click "Next".
24. Click "Preview Page" to see what your page looks like and to check for errors.
25. Click "Close Preview" when finished checking your page.
26. Click "Change Page" if you need to fix your page.   Press "Save Page" if everything was correct.
27. You will not have multiple pages in this report, so press "Exit Now."
28. If you are **finished** with the report and you are ready to give it to your teacher, then click "Send to Teacher".   If you are not finished and want to work on the writing some more, press "Exit Now". Then, you can pull up this report any time and make corrections from any computer that has access to the Internet by following steps 1-5 and choosing "Edit an Existing Report" rather than "Add a New Report." Follow the directions on the other pages to edit your report.)

Publishing to the Business Section of the Industrial Times

Congratulations, you have been selected to publish your article to the Business Section of the Industrial Times. Use the following directions to prepare your article for publication.

1. **Page Layout:**
    - Use a 8.5" X 11" sheet of paper.
    - Word-process the article, if possible. If not, write neatly.
    - Leave a 1.5" margin on the left side of the paper and 1" for the other margins.
    - Place your headline at the top of the paper and make it large, at least 24-point type.
    - The body of the article should be 12-point type, if word-processing.
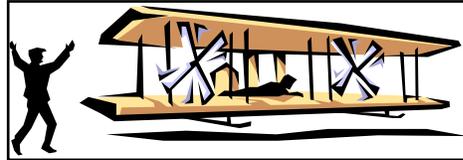
2. **Binding the Articles**
    - Get with the other three reporters in your group.
    - Combine all of the articles together with the Business Section cover page on the top.
    - Fill in the headlines and reporters' names in the appropriate section on the cover page.
    - On the left side of the pages, use the document stapler to bind all of the pages together.

Business Section

The Industrial Times
January 1, 1911

Inventions Fuel the Industrial Revolution

Many inventions in the last 200 years have contributed to our standard of living. The following articles have been compiled from this newspaper's archives to provide information on the important innovations. Read these articles, written by our finest reporters, to see how great minds use their creativity to the benefit of us all.

Contributing Reporters

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