Bellringer (4 minutes max)

- On the paper provided, design an emoji or icon to represent ONE change of this time period.

- Focus on the paragraph that is circled, then read over the others so you’ll be able to guess what your classmates symbols represent.
Post your emojis here:

- The West –
- Oil Industry –
- Auto Industry –
- Communication –
- Cities –
Ind ustria liza tion

U4T1- I can explain the causes of the first industrial revolution.

U4T2- I can evaluate the impacts (positive and negative) of the first industrial revolution on society and the economy.

U4T3 - I can describe the growth of business and industry in the nineteenth century.

Compelling Question: How did the Industrial Revolution represent a turning point in U.S. History?
Causes of Industrialization

- **Resources**
  - Cheap energy (oil, coal, gas)
  - Western Land
  - Capital $
  - Labor

- **Innovation**
  - Production
  - Communication
  - Transportation

- **Economic Trends**
  - Expanding Markets
  - Government Support
1. Which do you think had a greater impact on the people of its time: cell phones or the telegraph?

2. Which do you think had a greater impact on the people of its time: the Internet or electricity?
What do you notice?

**2 New Inventions and Technologies**

<table>
<thead>
<tr>
<th>Year</th>
<th>Patents Issued</th>
<th>Year</th>
<th>Patents Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>1845</td>
<td>473</td>
<td>1875</td>
<td>13,291</td>
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<tr>
<td>1850</td>
<td>883</td>
<td>1880</td>
<td>12,903</td>
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<tr>
<td>1855</td>
<td>1,881</td>
<td>1885</td>
<td>23,285</td>
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<tr>
<td>1860</td>
<td>4,357</td>
<td>1890</td>
<td>25,313</td>
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<tr>
<td>1865</td>
<td>6,088</td>
<td>1895</td>
<td>20,856</td>
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<tr>
<td>1870</td>
<td>12,137</td>
<td>1900</td>
<td>24,644</td>
</tr>
</tbody>
</table>

Bessemer Process

- **1870s - Henry Bessemer**
- **Turned iron into steel more efficiently.**
- **Increased skyscrapers and railroads.**
- **Today: the modern city**
The skyscraper relied on two technologies developed in the 1850s. The Bessemer process produced cheap steel, which was lighter and stronger than iron or brick. Engineers could now build tall structures that didn’t collapse under their own weight. Invention of the passenger elevator provided easy access to the higher floors.
Light Bulb

1879 - Thomas A. Edison

Allowed longer hours for work and leisure.

Today: communications, transportation, industry, daily life and entertainment.
Telephone

- **1876: Alexander G. Bell**

- **Instant communication to the masses. National networks.**

- **Today:** Evolved into party lines, private lines, switchboards (often a source of employment for women), commercial lines, rotary phones, cordless phones, cell phones.
Model T

- 1908 - Henry Ford
- Affordable for many
- Increased leisure and work opportunities.
- U.S. became a national (rather than local, regional) entity.

Today:
- Lead to suburbs, interstates, decay of vibrant inner cities. Created working-class jobs that were eventually outsourced (Rust Belt). Lead to other inventions (GPS, hybrids)
- Oil – Mideast relations.
- Emissions – climate change
Assembly Line

- **1913: Henry Ford**

- **Increased**
  - Mass Production (speed, quantity)
  - Job opportunities

- **Decreased:**
  - Craftsmanship
  - Cost of production

- **Today:** many assembly lines have moved into less developed areas of the world where workers perform the same tasks for much lower pay.
Just for fun: What do you think this is?

Emphasis on efficiency

- Monopolies - 1 company dominates a particular industry
- Trust - a set of companies is managed by a small group (trustees).
- Vertical Integration - controlling every step in the production of a product.
- Horizontal Integration - drive out or buy up competition
Business Attitudes

- **Laissez Faire**: French for “allow to do.”
  - Government believed supply and demand would regulate the market if government did not interfere.

- **Social Darwinism**: “survival of the fittest”
  - Best-run businesses led by the most capable people will survive and prosper.
### 3 An Explosion of Industrial Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Agricultural Workers</th>
<th>Non-Agricultural Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td>6,850</td>
<td>6,075</td>
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<tr>
<td>1880</td>
<td>8,585</td>
<td>8,807</td>
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<tr>
<td>1890</td>
<td>9,938</td>
<td>13,380</td>
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<tr>
<td>1900</td>
<td>10,912</td>
<td>18,161</td>
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<tr>
<td>1910</td>
<td>11,592</td>
<td>25,779</td>
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<tr>
<td>1920</td>
<td>11,449</td>
<td>30,985</td>
</tr>
</tbody>
</table>

Social Impacts

- Wealth gap
- Women – opportunity
- Smaller families
- Urbanization
- Need for reforms
Political Impacts

- Need of parties to address urban problems
- U.S. involved in world affairs (foreign markets)
- Corruption
Economic Impacts

- industrial economy
- increased wealth
- Decreased importance of farms
- Increased importance of labor unions