

Innovations! Contraptions! Inventions!

The United States experienced a second Industrial Revolution from 1865 to 1915. The creation of the machine tool and the assembly line resulted in rapid industrialization for New York State. Machines and the assembly line could now produce goods at a high volume for consumers... gas lamps were traded for electric light bulbs, telephones made communication easier, and transportation became faster.

The 19th century was the age of the innovators, those who created inventions that would revolutionize industry and society from how things were made, to what could be made. It was an exciting time. Even the term “scientist” was first used in the 19th century.

Activity

Part 1

Students will learn the process of an inventor in the 19th century. Key stories will include local entrepreneurs and inventors from Binghamton, the World's Columbian Exposition in 1893, and the ins and outs of creating and obtaining a patent. Students will also see a few of these technologies found in the Phelps Mansion. Sherman Phelps was a wealthy man and would have included the latest technology in 1870.



Stereoscope

Part 2

Divide into 3 groups. Students will learn the history about each invention listed below. Each group will take one of these inventions from the 19th century and try to recreate it using materials provided.



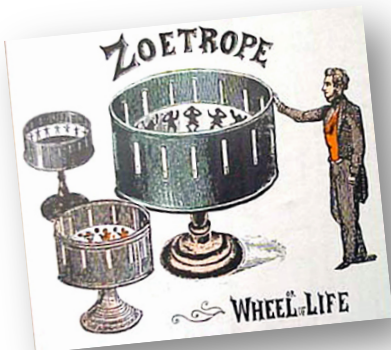
Thaumatrope

Inventions

- Thaumatrope
- Zoetrope
- Morse Code

Each group will have 20 minutes to re-create these objects and then switch.

Encourage questions about how these inventions would have impacted society in the 19th century. What would these inventions pave way for in the future? What would be their modern equivalent?



Grade 4 Common Core Learning Standards

4.6a, 4.6b Social Studies Industrialization, Immigration, and Growth
T1.5, T1.2, T1.3, T1.4, T1.5 Elementary Science Engineering Design