The Industrial Revolution

The Revolution that changed the world forever
- **Industrial** – Having to do with industry, business or manufacturing
- **Revolution** – a huge change or a change in the way things are done
- **Industrial Revolution** – a change from making things by hand to making them in factories.
Transportation

• Before the Industrial Revolution, people relied on the horse and their own feet to get around.
• With the invention of the steam locomotive, transportation took a huge step forward.
• The first two major railroad companies were the Union Pacific and Central Pacific Railroads.
Passenger carriers
An original steam engine
Steam locomotive

Goleta Air & Space Museum
www.Air-and-Space.com
Photographer: Brian Lockett
Leland Stanford

- Leland Stanford was a business tycoon, (a wealthy, powerful person in business or industry) co-founder of the Central Pacific Railroad, creator of Stanford University, and the governor of California.
Textiles

- With the invention of the spinning jenny and the power loom, the textile industry took off.
- Clothes could now be made far faster than ever before.
Spinning wheel

- The spinning wheel was the first invention, but it was very slow.
- Threads were spun one at a time, by hand.
The spinning jenny

- The spinning jenny could spin up to eight threads at a time. The spinning jenny was much faster than the spinning wheel.
The Spinning Mule

• The spinning mule used water power to spin the thread, which was much faster than doing it by hand.
• More cloth could now be made.
The power loom

- The power loom used water power to weave cloth
- People could make a lot of cloth quickly.
A cotton factory
Agriculture

- Advances in agriculture were also made.
- The invention of the seed drill allowed farmers to plant many more seeds much more quickly.
- The reaper allowed farmers to harvest their crops more efficiently.
- More crops could now be grown feeding an increasing population.
The seed drill
The reaper

- The reaper was used to cut down the harvest. As you can see, it would take a long time to do it by hand.
The mechanical reaper

The mechanical reaper was a lot faster than doing the hand reaper.
Steel

- With the invention of steel, buildings could be made much taller.
- Steel was much harder than iron, which would bend if made too tall.
- The steel industry created many new products, and led to the invention of the car.
Smoke stacks of a factory
A melting plant
Pollution

• One of the bad things about industrialization was pollution, as you could see in the earlier slides.
Andrew Carnegie became a millionaire in the steel business by putting all his competitors out of business.

He created U.S. Steel in Pittsburg.
The electric light

- Can you imagine what life would be like without the electric light?
- Thomas Edison invented the electric light.
- Thomas Edison also invented many other things, like the phonograph.
Thomas Edison
The phonograph
In 1844, Samuel Morse demonstrates his telegraph by sending a message to Baltimore from the chambers of the Supreme Court in Washington, DC. The message, "What hath God wrought?," marks the beginning of a new era in communication.

The telegraph used dots and dashes to send messages over electric lines. These dots and dashes became known as Morse Code.
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Telephone

- Alexander Graham Bell patented the first telephone in 1876.
John D. Rockefeller

- John D. Rockefeller became the richest man in the world in the oil business.
- He created Standard Oil Company.
- Oil began being used in all types of machines, like cars.
Henry Ford

- Henry Ford invented the first practical car, the Model T.
- The car had been invented earlier, but Ford was the first to make the car affordable.
Samuel Gompers

• With all the new businesses being created, someone needed to take care of the workers.

• Gompers created the American Federation of Labor, or organization of other labor unions that had bonded together to protect the rights of workers.
What are the similarities between Carnegie, Rockefeller, Stanford, and Ford?

- They were all leaders of big business
Orville and Wilber Wright

- The Wright brothers were the first men to successfully fly an airplane.
- The flight lasted only twelve seconds, but it proved men could fly.