

Unit 13 Lesson 3 Day 1

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What things do you use each day that require electricity?

What would life be like without electricity?

An Age of Innovation

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**WOMEN'S HISTORY MONTH
HISTORY SPECIAL**

FRIDAY MARCH 20th

12:00 - 1:00

Special Guest Speaker

**BRING YOUR LUNCH
HANG OUT WITH FRIENDS
AND LEARN ABOUT SOME
AWESOME WOMEN IN HISTORY**

Lesson Objectives

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- **Explain how steel led to a second industrial revolution.**
- **Identify Andrew Carnegie, Alexander Graham Bell, & Thomas Edison and their accomplishments.**
- **Describe advances in fuels in the late 1800s.**

What were some of the important inventions in the late 1800s?
Why are these inventions important?

Intro

Intro



- Many inventions we enjoy today without even thinking have their roots in the late 19th century



What do you remember about the first Industrial Revolution?

What do you remember about the first Industrial Revolution?

revolution

working in factories changed their hours and salary

child labor

The telegraph was invented

canals built for easier transportation

it had both a positive and negative effect

There were a lot of advances in technology

hard life for factory workers

RC revolution!!

children working in harsh conditions

Shift from Human & Animal Power to machine power

The First Industrial Revolution was all about

The First Industrial Revolution was all about

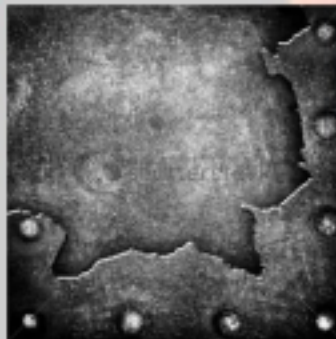
Iron



Steam engines, machine parts, railroad tracks, pipes, bridges,

Iron

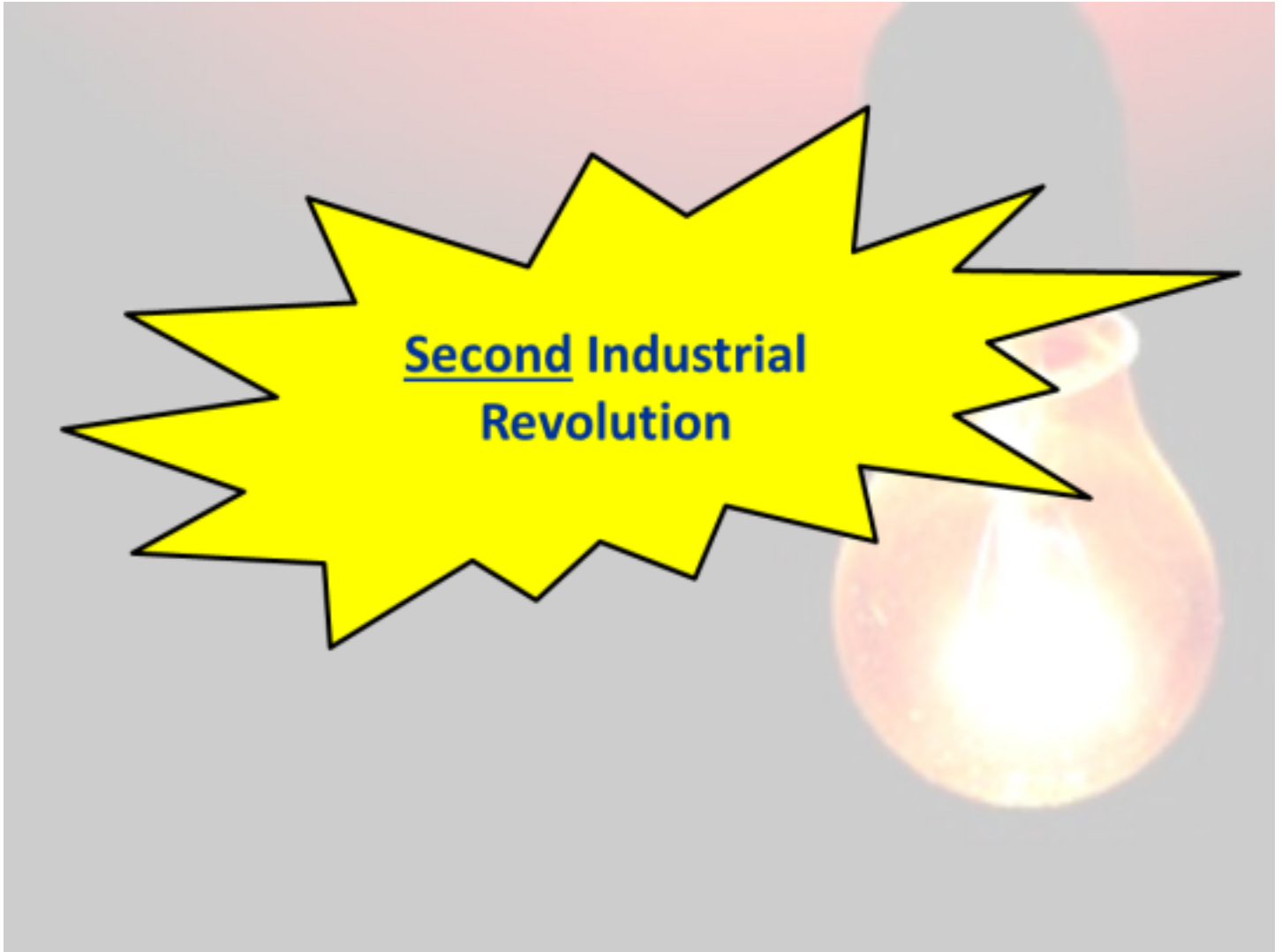
Iron



Hard to
shape & can
crack easily



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Slide10

Steel



Steel is stronger, more flexible & lighter

How did people heat their homes in the 1800s?

How did people heat their homes in the 1800s?

One HUGE fireplace in the main room.

wood
candles
fires
Fire places and wood. -3000ya

fireplace with wood
Coal stove?

fireplace fires

fireplaces

Fireplace

they probably made a heater somehow

fire

wood fireplaces

wood
fire
wood fireplace

fire

FIRE place zachary

Write on the whiteboard



How did people heat their homes in the 1800s?

New

How did people heat their homes in the 1800s?



A NEW fuel??

A NEW fuel...

- What was it?

Petroleum



Facts about Petroleum:

Facts about Petroleum:

✓



and kerosene

✓ easier to transport than

and



People started using petroleum to heat their homes & businesses



Let's review

Let's review

Use your
polling tools!

What helped start the second industrial
revolution?

A. Steel

B. Iron

1st industrial revolution used Iron



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What new source of energy was discovered in the late 1800s?

A. Coal

B. Petroleum

C. Solar



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- Let's take a look at some important innovators from the
Second Industrial Revolution!

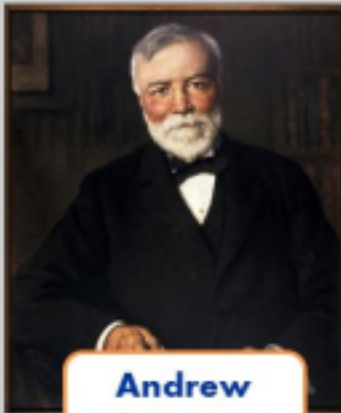


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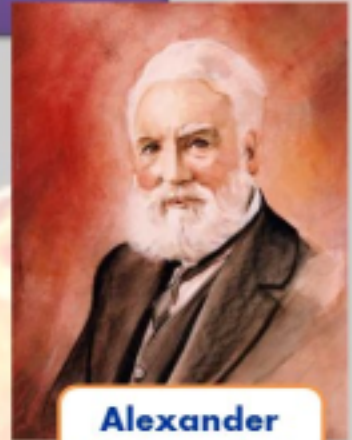
What do you know about these innovators?



Thomas Edison

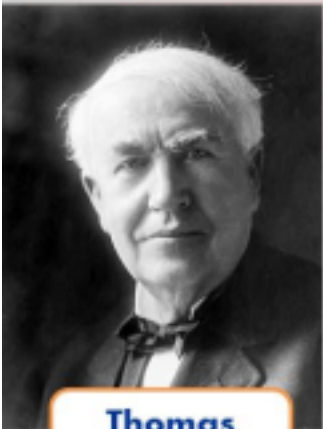


Andrew Carnegie



Alexander Graham Bell

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**Thomas
Edison**



Came up with more than 1,000 inventions!

He had an 'invention factory'

Figured out how to make a light bulb work well
& set up a power station to generate electricity

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THE MOVING PICTURE GENIUS

TALKING PICTURES!

CELESTIAL PHOTOGRAPHY

A FACT!  **A REALITY!**

THOS. A. EDISON
STARTLED THE CHILDREN WORLD AND REVOLUTIONIZED THE PICTURE BUSINESS WITH HIS LATEST AND GREATEST INNOVATION

THE KINETOPHONE

ABSOLUTELY THE FIRST PRACTICAL TALKING-MOTION-PICTURE EVER MADE

VOICE AND ACTION RECORDED SIMULTANEOUSLY
PERFECT SYNCHRONISM AND FLUIDITY

ANY FIRST-CLASS OPERATOR CAN HANDLE

THE KINETOPHONE IS THE MOST PERFECTLY SIMPLE AND EASY TO OPERATE AND TRANSPORTABLE OF ALL MACHINES OF ITS CLASS

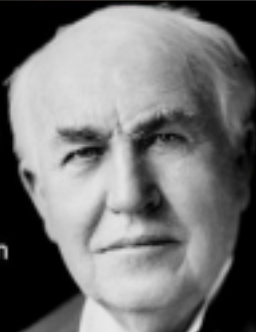
CONTRACTS NOW BEING MADE FOR MACHINES AND SERVICE
WRITE FOR PARTICULARS

THE AMERICAN TALKING PICTURE CO., Inc.
SOLE DISTRIBUTORS
1493-1495 BROADWAY NEW YORK



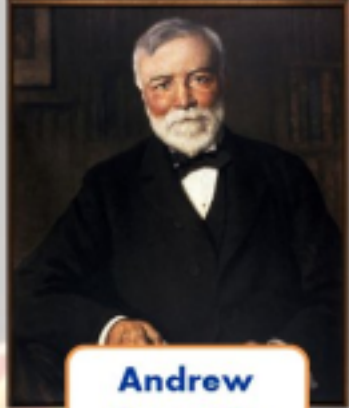
"Genius is one percent inspiration and ninety-nine percent perspiration."

- Thomas Edison



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Born in Scotland- lived in the United states






Andrew Carnegie

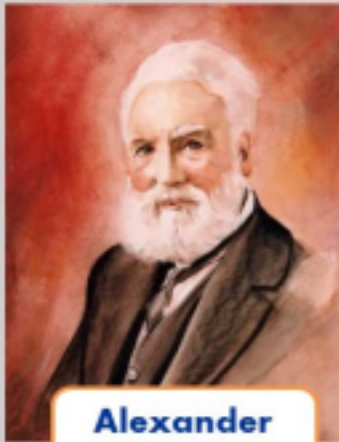
Bought iron ore deposits, steel mills, railroads, and ships

Made steel easily

produced so much steel so effeciently that he helped the United States become an important economic power



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**Alexander
Graham Bell**



Him & Thomas
Watson invented the
telephone

Bell started a
Telephone Company

By the 1890's phone
service existed in the
US and Europe



Inventor Alexander Graham Bell (1847-1922) shows his first telephone to assistant Thomas Augustus Watson (1874-1934) (photo courtesy of wired.com)

Do you remember?

Do you remember?

Alexander Graham Bell

Andrew Carnegie

Thomas Edison

A

Most famous for inventing the light bulb, but had over 1,000 inventions.

B

Invented the telephone with Thomas Watson.

C

Helped the United States become an important economic power with efficient steel production.

Use your polling tools!

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Steel

Steel is stronger, more flexible
& lighter

Most new invention but hard
to produce and very expensive



Slide25

Pittsburgh (Steel) Historical Marker



Mouse over for marker text

Name:
Pittsburgh (Steel)

Region:
Pittsburgh Region

County:
Allegheny

Marker Location:
Pa. 65 (Ohio River Blvd.), N city line. [+ 7 more locations]

Dedication Date:
December 21, 1946



The map shows the location of the historical marker in Allegheny County, Pennsylvania. A red pin is placed on the Ohio River, near the intersection of Pennsylvania Route 65 (Ohio River Blvd.) and the city line. The map includes labels for various townships such as Ross Township, Kennedy Township, Robinson Township, and McKees Rocks. Major roads like I-79, I-19, and I-279 are also visible. The map interface includes a search bar, a person icon, and zoom controls.

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Henry Bessemer

Henry Bessemer



Invented a furnace that could cheaply turn iron into steel

Charles Williams Siemens

Charles Williams Siemens

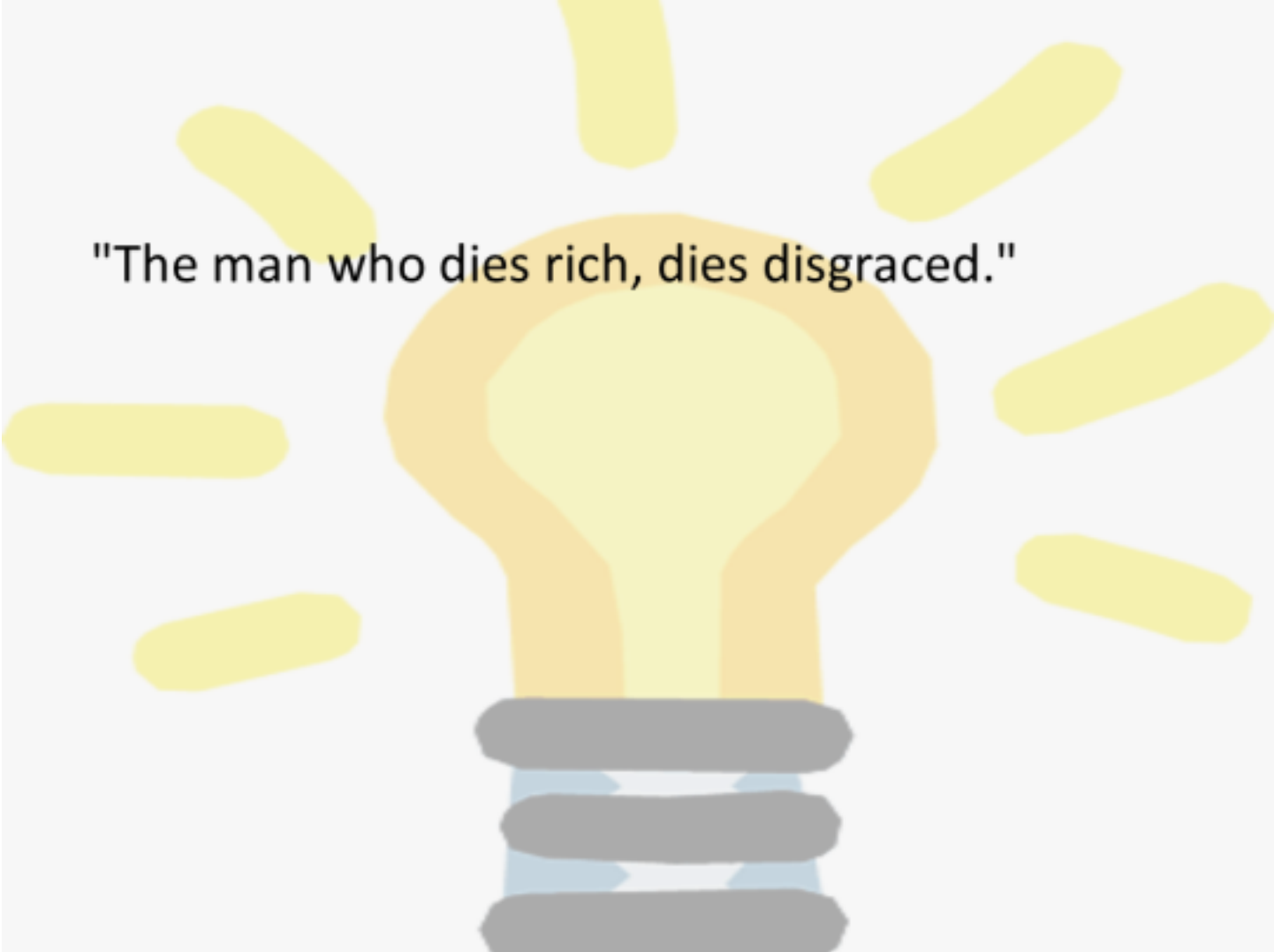


Made up a process for making steel in a gas furnace

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Slide30



"The man who dies rich, dies disgraced."

Slide31



Andrew Carnegie

Andrew Carnegie



For this weekend??

For this weekend...

- Read pages 560- 565



Great Work Today!

Great Work Today!

- Exit ticket:

<https://docs.google.com/forms/d/1VQ3pCiNkT4Py7cGbnzEL7BgHhJp4VQCmUcEqtdDFuU/>

Read pages 560- 565

- Have a great day!

