Railroad Technology

Pre-Visit Lesson

Grades: 6th - 12th grade	Class Time Needed: 45 minutes

Big Idea   Students will understand how advancement in technology has positive and negative effects.

Maryland Curriculum Standards

Social Studies Framework

- Essential Question (8th grade): Did the benefits of post-Civil War industrialization outweigh the costs?

NGSS Science Framework

- Middle School and High School: Developing Possible Solutions

Materials Needed

- Technology Past and Present Video - https://youtu.be/DENG7Q7VRgo

- PBS Interactive Technology Website - https://mpt.pbslearningmedia.org/resource/ate10.sci.engin.design.techovertime/technology-over-time/

- Internet access

- Student devices (if creating digital advertisements)

- Blank paper, coloring materials, home/living magazines, tape/glue, scissors (if creating physical advertisements)

Teacher Resources

PBS Timeline of Inventions Article -

https://www.pbs.org/wgbh/americanexperience/features/telephone-technology-timeline/

Technology Past and Present Video - https://youtu.be/DENG7Q7VRgo

PBS Interactive Technology Website

https://mpt.pbslearningmedia.org/resource/ate10.sci.en-

gin.design.techovertime/technology-over-time/

Lesson Procedure

Introduction:

Show technology past and present video (https://youtu.be/DENG7Q7VRgo) so students can review how our world has changed because of inventions and improvements to technology.

Direct Instruction (Student Activity):

Either individually or in groups, students will pick an invention from the internet resources provided (preferably no student/group will pick the same invention). Students then create an advertisement for the invention which must include the following elements -

- a picture of the product

- time period/ year of invention

- what it was used for

- at least two ways it improved people's lives

- price of the product

- name of inventor

If time allows, students can present their advertisements to the class.

Conclusion:

Moderate a whole group discussion about the advancement of technology and how inventions are

created. Possible questions include -

- Do inventions throughout time follow any themes (examples: survival, transportation, entertainment)?

- How do inventors become successful?

- What are the pros/cons of technology advancement?

- Has everything we need already been invented?