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)
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?