

**Project 1.1.3 STEM Investigation**

Introduction

Engineering, Technology, and Science – we use these terms every day, but what do they mean and what impact have they had on past and present lives? For example, some of you may have had an X-ray for a broken arm, or your parents may have a water purification device on your household faucet. Were the products and inventions created because of science or because of technology, by a scientist or by an engineer?

Here is your chance to find out about a product of your choice, maybe a potato chip or the sticky note, or even the color television. While you are exploring, consider asking questions about what effect the various developments have had on the evolution of civilization.

Equipment

* Gateway notebook
* Computer with Internet access

Procedure

You and your partner will investigate a technological artifact and find out about its history and impact on civilization. You will learn how it may be used differently today. You will use various resources to find the information, including print, multi-media, and the web. Be aware that every site on the web is not always reliable, so verify your resources. You will answer the **Questions to Guide You** in your notebook and then prepare a presentation to share what you found with your classmates. Your teacher must approve the artifact you are researching.

Working in pairs, you and your partner will divide the work between you; be sure to regularly share your findings with your partner.

1. You will gather information about the technological development you chose by answering the Questions to Guide You. Your teacher will provide you with websites and book resources to help.
2. Prepare a 2-3 minute presentation that includes all of the required information to present to your classmates. The presentation aides could include a poster, a 2 page flyer, samples of the technological artifact that show different innovations, a prezi or a movie. Include a minimum of the information shown below.
   1. Include your team member names, class, period, and selected invention.
   2. Explain the original invention.
   3. List the discipline(s) of engineering most important to the development of the product and explain how these disciplines were essential.
   4. Provide a timeline drawn to scale showing the history of the invention and evolution (changes or innovations).
   5. Identify major changes that have occurred in the design of the product.
   6. Address the global impact on society and the environment.

Conclusion

1. Why are most products innovated?
2. Choose one product that you would like to innovate. Why did you choose this product? What change(s) would you make to it?