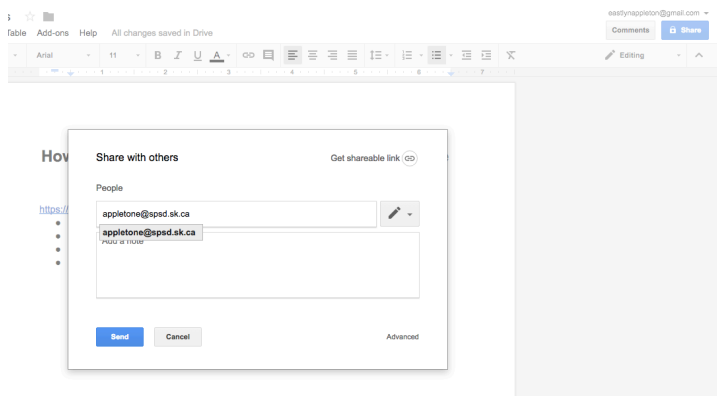
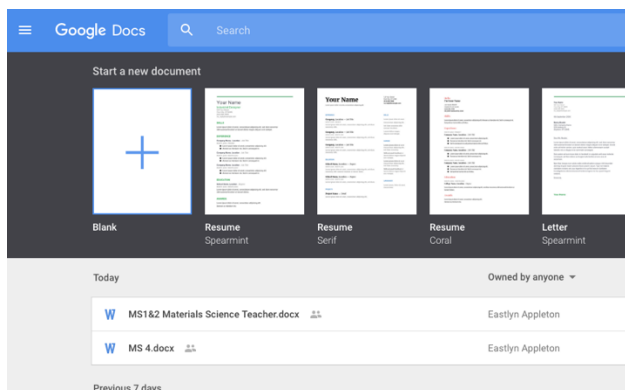


Research Project Criteria

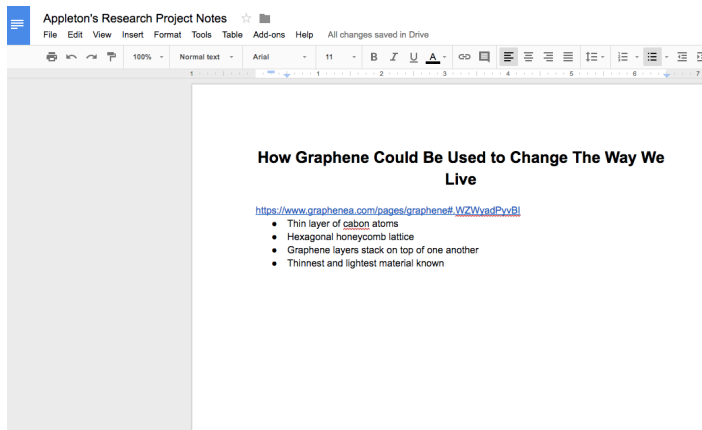
For your final project you will be required to choose a topic (as outlined below) to research throughout the quarter. You will be given some class time to work but will be required to use time outside of class to complete this project. Your research will then be presented as a podcast episode for our class podcast. Some podcasts you might want to listen to (to get an idea of how a science podcast can sound): Brains on, Science VS (Gimlet), StarTalk, or Chemistry in its element.

Tasks:

1. Choose Topic
2. Complete **Project Proposal** (attached)
3. Start Research: Take point form notes in **google doc** (as below).
 1. Start Google doc & share with appleton@spsd.sk.ca



2. Start research (may want to wait until project proposal is approved).
3. Title your Document: (Your Name)'s Research Project Notes
4. At the head of document state your topic in bold. Be sure it is clear whether you are choosing to research the future of a material or the past of a product.
5. Organize you notes as follows:
 - Copy URL Link
 - Write out point form notes of the information you have learned from the website you linked. This is to avoid accidentally plagiarizing.
 - Copy your next link and continue this process.



4. Write your **Script**. Once you have gathered enough information to have a clear understanding of your topic, create a new document where you will write out your podcast script. Title this document: (Your Name)'s Podcast Script
 - a. Your Script should be about **1500 words**, which will become approximately 10 minutes of recording.
 - b. Include an introduction where you will introduce yourself and the topic you have chosen.
 - c. Be sure you meet all of the criteria as listed above, as well as all of the criteria listed in the rubric.
 - d. Write a conclusion that summarizes the key points
6. Record your episode and submit the file as an MP3 or WAV to Mrs. Appleton via email or flash drive. *If you do not have recording equipment, you can come in in the morning or at lunch to record.*
7. Create your **show notes**, citing all sources using APA format. Include links to relevant material the audience may wish to read/view to gain more information on the topic. The show notes should have a catchy title relevant to your topic. This title should start with "(your name)'s Episode" followed by your unique title. This document will also need to be shared with Mrs. Appleton (appleton@spsd.sk.ca)
8. Create **one question** listeners should be able to answer after they have listened to your podcast episode. Submit the question with acceptable content that should be included with a 'correct' **answer**. The question should require an answer that is a few sentences to a paragraph. Examples of how your question might start are: "How...", "Why...", "Differentiate...", "Critique..." The questions created by each student will be incorporated into a hand in assignment

Project Item	Due Date
Project Proposal	Sept 11, 2017
Research Google Doc Started	Sept 15, 2017
Research Google Doc Complete	Oct 13, 2017
Script	Oct 23, 2017
Recording	Oct 26, 2017
Show Notes	Oct 26, 2017
Question with Answer	Oct 26, 2017
Completed Questions From All Episodes	Nov 3, 2017

Topic:

Your research project will be focused on materials science, meeting outcome MS4 of the Saskatchewan Chemistry 30 Curriculum. You will choose to either look to the future or look to the past to investigate how advances in materials science influence our world.

Look to the future: Choose a new innovative material and imagine what it could mean for our future.

- Investigate the potential of modern materials (e.g., graphene, aerogels, polymers, nanotechnologies, superconductors, instant adhesives and carbon nanotubes) to change the way we live.
- Suggest a range of suitable applications for a material based on its chemical and physical properties.
- Evaluate the risks and benefits to society and the environment of the material (real or imagined) throughout its life cycle, from raw materials to production, use and disposal.
- Identify criteria (e.g., cost, availability, transportation cost and source of material) used to guide the choice of materials for a specific application.
- Justify the use of the material chosen based on the criteria you have just identified

OR

Look to the past: Choose a product that has evolved over time due to the development of new materials and investigate how new materials have improved the product.

- Analyze how a product (e.g., sporting equipment, clothing, vehicle and building material) has evolved in response to the development of new materials.
- Research the properties of the materials that have helped to influence the evolution.
- Evaluate the risks and benefits to society and the environment of the products (real or imagined) throughout its life cycle, from raw materials to production, use and disposal.
- Identify criteria (e.g., cost, availability, transportation cost and source of material) used to guide the choice of materials for the product.
- Justify the use of the current materials used based on the criteria you have just identified

Podcast Final Project Rubric

/10	Format & Organization	Has introduction to the speaker and the main idea of the episode. Content follows a logical sequence that is easy for the audience to understand. The main ideas and supporting information is presented in a logical manner. The episode ends with a summary or conclusion that reviews key information.
/20	Content	All questions are thoroughly answered regarding the topic and the audience can gain a clear understanding of the topic from the recording. The quality of the information presented shows a clear understanding by the speaker and is presented in a way that makes the topic easy for the audience to understand. The audience is not left with unanswered questions.
/10	Show Notes and Sources	All sources used are cited in the show notes. The show notes contain a summary of what was discussed in the podcast episode as well as some further reading or content intended to further the understanding of the topic.
/10	Record Keeping	Notes for the research project are kept in a google doc shared with Mrs. Appleton (applestone@spsd.sk.ca). The notes are updated weekly and sources are recorded. Notes are point form or in your own words so as to avoid any unintentional plagiarism.
/10	Quality	The recording is easy to listen to so as to not distract from the content. No unintentional outside noises or sounds can be heard during the recording. Vocabulary used in the recording enhances the content. The speaker maintains focus and speaks in a clear voice, enunciating and speaking at an appropriate volume.
/5	Question	The question submitted is related to the main topic of the podcast and helps the listener to gain deeper meaning from the content. The question requires some independent thinking as well as recalling information learned from the podcast episode. The student also submits an answer to the question, or a list of acceptable items that might be included in a 'correct/complete' answer.
/15	Assignment Answers	Provides thoughtful, thorough answers to all questions. There is clear evidence that the student has listened to all episodes of the podcast and fully understands all of the content shared.

Name: _____

Project Proposal for Student Directed Study

This will be presented as a podcast which will be published on the internet.

The recording will be due October 27, 2017 and cannot be submitted late.

General Topic:

Why I am interested in this topic:

What do you currently know about the topic?

What do you hope to learn about the topic (specifics please):
