

Science 1206 Alternate Projects 2016 - Due Date: March 21

Students must complete either one project from option A or 2 projects in option B. All required rubrics and sheets are online for printing on my website: woodlandhsh.weebly.com

Option A:

Students must complete one of the following projects:

(1) Photojournal

- Using a slideshow program (such as powerpoint), students must make a show using 10 digital pictures they have taken themselves (not searched for online) that depict a different concept from the science 1206 course. At least **one** picture must come from each unit - ecology, chemistry, physics, and weather. You must include on the slide an explanation of how the picture depicts the concept and link it back to the curriculum. This must be detailed and use proper scientific terms. Additionally, at least **two** the pictures must have you in them.

(2) Scientist Scrapbook

- Students will research the major contribution to science made by **four** scientists - one from each unit studied in this course unit - ecology, chemistry, physics, and weather. Your research will also include a short biography of the scientist. Each person will be given a two page spread in your scrapbook - biography on one side and contribution to the discipline studied on the other. Each page must also have at least 2 pictures related to the page's topic (these can be cut from magazines, or printed from an online source). Your scrapbook must also include a reference page including links to any online pictures you use in your scrapbook.

Option B:

Students must complete two of the following options:

(1) Biome Assignment

- Using one 8.5" x 14" piece of paper (legal), students will draw and color a full page scene depicting the chosen biome - being as detailed as possible. You should draw at least 4 different plants and 4 different animals in your picture that live in the biome. While the picture will not be graded strictly on artistic ability, the animals and plants drawn should be more than a quick sketch, and any key abiotic factors should also be included in the drawing. On the back of the page, students must complete a food web (words are fine) using their 8 organisms from the front and at least 2 more animals (for a total of 10 organisms). Any online references used for your food web/organisms should also be included on the back.

(2) Periodic Table Element Project

- If you choose this project, you **MUST** tell me which elements you are doing ASAP. Failure to do this will result in a loss of marks. This is to ensure no duplicate elements are done. Students will choose 2 elements from the periodic table and research the physical properties of those elements. On a standard 8.5" x 11" piece of paper, students will copy the block on the periodic table (symbol, atomic number, name, etc) onto the front of the paper. The block must be shaded a color lightly, and drawings of 3 every day uses of the element must be drawn on the page as well. On the back, students will write the physical properties researched. A detailed list of properties are on the page on my website.

(3) Hollywood physics problems

- If you choose this project, you MUST tell me which movie you are watching ASAP. Failure to do so will result in a loss of marks. This is to ensure no duplicate movies are done. Students will choose one movie. After watching the film, students must write a 500 word essay (approximately 1 page double spaced 12 pt font) explaining at least 2 laws of physics broken or ignored in the movie. For example (you cannot use this one), in Star Wars, the Millennium Falcon can jump to lightspeed - travelling faster than the speed of light. According to Einstein, this is impossible. Science fiction movies are a good choice for this, but any movie can be used as long as physical laws are broken (I'll even accept problems with other sciences other than physics!). If you have any problems with what you should write, please see me.

(4) Weather Log and Climate graph

- If you choose this project, you MUST tell me which Canadian city you are completing ASAP. Failure to do so will result in a loss of marks. This is to ensure no duplicate cities are completed. Students must print off two copies of the weather log located on my website. For the month of March, you must fill in the weather information given on environment Canada's website for each day. If you miss a day (since we are starting a little late in March this will already have happened), you can go to historical weather on that same page to get the information that is missing. After March is over, you must complete a climate graph for the month for your city. You will use a red line for high temp, a dark blue line for low temp, and light blue bars (lightly shaded) for precipitation. To see an example of what one should look like, please see me in class.

If at any time you need some direction on your project, please see me.