**Plan for now:**

* ruskana, riva, and sammy work on the poster,
* soseki, nucha, and I will work on the video?
* the video people will prepare some script for the poster people so they just have to appear on screen

**Topics we [could] cover:**

* Global climate change
* A current environmental issue

**Learning Objectives to cover:**

Cover at least two learning objectives from each of the units of this course:

Introduction []

* Unit 1 – Environment and Overview of Climate Change and COVID-19 [Paco, done]
  + Identify four greenhouse gasses and explain why there are elevated levels in the atmosphere. [script done, free to take, slide 6, 7]
  + Identify human sources of greenhouse gasses.
  + [Any additional LOs]
* Unit 2 –Cells and Life
  + Understand how structure relates to function (and vice versa) in plants and animals, and how these relationships are influenced by their environment. [slides done, free to take, slide 17]
  + Give examples of how different environments give rise to differences in the structure and function of organ systems of plants and animals. [Paco, done]
  + ~~Appreciate the variety of shapes and sizes that plants and animals come in, and why they differ (within and between groups).~~
* Unit 3 – Organism and Ecosystem Health
  + What are the main factors that produce physiological responses to climate change?
  + Describe population responses to climate change
  + Discuss local (within British Columbia) consequences of the heat dome of 2021 to terrestrial and marine ecosystems.

**Plan:**

Approx 4 min on each Unit

**Learning Objectives to cover:**

* Unit 1 – Environment and Overview of Climate Change and COVID-19
  + Explain the greenhouse effect, how it is important to us, and how it relates to global climate change
  + Identify human sources of greenhouse gasses.
  + Discuss the evidence that supports the climate is changing (increased CO2 and global temperature)
  + Define global climate change
* Unit 2 –Cells and Life
  + Explain how extinction rates today compare with those in the past.
  + Give examples of how different environments give rise to differences in the structure and function of organ systems of plants and animals.
* Unit 3 – Organism and Ecosystem Health
  + Describe population responses to climate change
  + Discuss local (within British Columbia) consequences of the heat dome of 2021 to terrestrial and marine ecosystems.

**Skeleton:**

* As we all know, climate change is a problem and have been in the attention of media for the past few years
* Climate change is the long-term shifts in temperatures and weather patterns over the entire Earth
* It is caused by the greenhouse gasses, which causes the greenhouse effect
* Although the greenhouse effect is what makes the earth habitable, too much causes climate change
* The greenhouse effect is when blah blah blah
* There is evidence that climate change is real
  + The graph based on the comparison of atmospheric samples contained in ice cores and more recent direct measurements, provides evidence that atmospheric CO2 has increased since the Industrial Revolution
  + (Credit: Luthi, D., et al.. 2008; Etheridge, D.M., et al. 2010; Vostok ice core data/J.R. Petit et al.; NOAA Mauna Loa CO2 record.)
* Humans are the main culprit for the increase in greenhouse gasses, such as CO2, methane, N20, water vapor
* Climate change can cause adverse effects
* One example is the heat dome of 2021
  + Evidence that
  + The heat wave appeared due to an exceptionally strong [ridge](https://en.wikipedia.org/wiki/Ridge_(meteorology)) centered over the area, whose strength was linked to the [effects of climate change](https://en.wikipedia.org/wiki/Effects_of_climate_change).[[10]](https://en.wikipedia.org/wiki/2021_Western_North_America_heat_wave#cite_note-:22-10)[[11]](https://en.wikipedia.org/wiki/2021_Western_North_America_heat_wave#cite_note-11)
* The heat dome caused a lot of deaths in humans and animals alike
  + The heat dome sparked numerous extensive wildfires, some reaching hundreds of square kilometers in area, which led to widespread disruption on the roads. [One of them](https://en.wikipedia.org/wiki/Lytton_wildfire) destroyed the village of [Lytton, British Columbia](https://en.wikipedia.org/wiki/Lytton,_British_Columbia). The heat also damaged the road and rail infrastructure, forced closures of businesses, disrupted cultural events, and melted snowcaps, in some cases resulting in flooding.[[13]](https://en.wikipedia.org/wiki/2021_Western_North_America_heat_wave#cite_note-13) The heat wave also caused extensive damage to crops across the region, which was seen as likely to result in higher food prices globally, though the losses have yet to be calculated.[[5]](https://en.wikipedia.org/wiki/2021_Western_North_America_heat_wave#cite_note-:48-5)
  + The Chief Coroner of British Columbia later said that in the week between June 25 to July 1, 569 deaths were confirmed to have had heat-related causes, and in a report released June 2022, the number was updated to 619.[[16]](https://en.wikipedia.org/wiki/2021_Western_North_America_heat_wave#cite_note-:7-16)[[17]](https://en.wikipedia.org/wiki/2021_Western_North_America_heat_wave#cite_note-:54-17)
* Canada even recorded a record high temperature of 49.6 degree celsius in Lytton, British Columbia