Log Book

Time Table

December 1-20	Create log book & plan out data
December 21-January 30	Work on Presentation & work on research
January 30- March 15	Finish up Presentation (If we get into city)

Topics

- Environmental Impact of Different forms of transportation
- Lab created diamonds vs real diamonds
- Study of the solar system

We decided to do ' the environmental Impact of different forms of transportation', because Global Warming relates to this and that is the current situation.

Background Research

Some vehicles now use electricity instead of oil & gas, which helps reduce the pollution on our planet, but most vehicles are still hybrid or they use gasoline.

Hypothesis:

Cars make the most pollution per year because there are so many of them.

Data information:

We used charts and graphs to find out how much pollution is created in different parts of the world, such as India, the United States, The United Kingdom and Canada. We also used websites to find more information and we used books in the past which we can use now as we already have that background information.

Data, results & links:

December 10, 2023 - Research of topic using:
https://www.visualcapitalist.com/comparing-the-carbon-footprint-of-transportation- options/

https://ourworldindata.org/travel-carbon-footprint

https://css.umich.edu/sites/default/files/2023-10/Carbon%20Footprint_CSS09-05.pdf

https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions

https://www.epa.gov/system/files/documents/2023-06/420f23016.pdf

https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

https://www.cbo.gov/publication/58861

December 25, 2023 - Start creation of presentation using:
https://www.thestar.com/business/cities-around-the-world-have-seen-air-pollution-plummet-during-covid-19-is-this-the/article_82281acd-9126-5435-9a75-eeadfea4da4f.html

December 26, 2023 - Continue creation of presentation using:
https://www.cbo.gov/publication/58861#:~:text=In%202021%2C%20CO2%20emissions,from%20the%20electric%20power%20sector.

December,28,2023-We used:
'https://www.nature.org/en-us/search/?q=Carbon%20Footprint%20&fq=&start=0&size=8 '

 'https://www.carbonfootprint.com/ '

'https://impactful.ninja/ '

'https://www.conservation.org/ '

December 30, 2023 - Continue creation of presentation using:
https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions.html#transport

https://climatekids.nasa.gov/climate-change-meaning/

December,30,2023-We used:
https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions.html#transport

https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

December 31, 2023
https://www.epa.gov/ghgemissions/overview-greenhouse-gases

CO2 emissions of transport modes (UK Government) – processed by Our World in Data. "Transport emissions per kilometer travelled" [dataset]. CO2 emissions of transport modes (UK Government) [original data].   https://ourworldindata.org/travel-carbon-footprint

January,1,2024-We used:

https://www.thestar.com/business/cities-around-the-world-have-seen-air-pollution-plummet-during-covid-19-is-this-the/article_82281acd-9126-5435-9a75-eeadfea4da4f.html

https://www.epa.gov/ghgemissions/overview-greenhouse-gases

January 1, 2024 - Continue presentation using:
https://www.iea.org/data-and-statistics/charts/global-co2-emissions-from-transport-by-subsector-2000-2030

https://newsinteractives.cbc.ca/features/2023/rocket-pollution/

https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021EF002612

January,15,2024-We used:
https://education.nationalgeographic.org/resource/global-warming/

https://www.nationalgrid.com/stories/energy-explained/what-are-greenhouse-gases

https://www.eia.gov/energyexplained/energy-and-the-environment/greenhouse-gases.php

Conclusions:

Transportation is one of the biggest sectors overall, but if you observe the charts, you can see that worldwide, light duty vehicles create the most emissions. This includes cars and light duty trucks. Light duty trucks are the largest emitter of pollution in Canada and U.S.A. Our hypothesis was partially correct because light duty vehicles (which include cars) are the biggest polluter, but not specifically cars.

Recommendations:

In the future, we could make another presentation like this one except after most of the world is using electric cars. Next time, maybe we can use a slightly more challenging project and emphasize our hypothesis more, meaning we have a slightly more focused research project instead of a broad one.