**Week 9**

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| --- | --- | --- | --- | --- |
| Week | Concept | How I’ve used it | Line number | Filename |
| 2 | Contact form | Added a contact form at the end of the webpage for people to contact me if there are any enquiries.  Index.html includes:   * Tables (th,td,tr) * Onclick -> alert * Input type: text, textarea, submit   CSS includes:   * Padding * Border-radius * Border * margins | 86-109  191-227 | Index.html  CSS |
|  | buttons | Used a button with an onclick function to change the image of a human to an image explaining the reason for the increase in beef consumption | 59-60, | Index.html |
|  | Pop-up/ alert window | An alert to acknowledge the form submission | 104 | Index.html |
|  | Relative/absolute paths | Used several relative paths to add images to the webpage | 13,15,46,53,59,62 | Index.html |
| 3 | document.getElementByID | Used document.getElementById for the onclick function: once the button is clicked, the image of the human changes by obtaining the element’s Id, “human”, and changing the src. In the element | 59 | Index.html |
| 4 | Functions(currently not-functional) | Used a function to obtain the typewriter effect for “what is deforestation” | 23  74-85 | Index.html  Main.js |
| 5 | Colours | Used colours, mainly rgb values, to change the colours of background, buttons, text, and graph fills | 6-8,13,51-54,62,78,85,100-101,108-109,163-164,197,205,207,213,215,231,236-237  13-14,31,44-50,68,99-100,120, | CSS  Main.js |
|  | Scaling (currently non-functional) | Intend to use scaling methods to allow the change in slider to correspond to a change bar charts | 35 | Index.html |
| 7 | Constructing charts using JS | Constructed three charts:   * One bar chart for to show the reduction in forested area over the years globally * One doughnut chart to show the countries’ share of deforestation * One bar chart to show the main causes of deforestation and each of their contribution to deforestation | 36-39,44-47,50-54  1-34,36-71,88-123 | Index.html  Main.js |

Overall structure (with Koko the koala as main character)

* “what is deforestation and why should I care?” in centre with forest background
* Definition of deforestation : Deforestation is the conversion of forested areas to non-forest land use such as arable land, urban use, logged area or wasteland. According to FAO, deforestation is the conversion of forest to another land use or the long-term reduction of tree canopy cover below the 10% threshold.
* Link to video + autoplay: <https://www.youtube.com/watch?v=Ic-J6hcSKa8&t=8s>
* Global decrease in forested areas over the years(data visualisation)
  + Slider bar at the bottom, as you move slider bar, you can see the decrease in forested areas over the years in the continents (bar decreasing)
  + Map

    Description automatically generated
  + <https://fra-data.fao.org/assessments/fra/2020/WO/home/overview>
  + <https://ourworldindata.org/deforestation>
  + <https://ourworldindata.org/drivers-of-deforestation>
  + <https://www.worldwildlife.org/magazine/issues/summer-2018/articles/what-are-the-biggest-drivers-of-tropical-deforestation#:~:text=Beef%20production%20is%20the%20top,and%20fourth%20biggest%20drivers)%20combined>
* Countries contributing to deforestation the most, absolute values (Brazil) via doughnut chart (Brazil has the most amount of biodiversity and tree species and yet it has the highest rate of deforestation)
* Causes of deforestation
  + Image of human increasing in size with each click
    - With each click, explanation appears
  + <https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture>
* Impacts of deforestation (why I should care)
  + Graphical user interface

    Description automatically generated with low confidence
* How do I care?
  + Recommend ways to reduce consumption of beef
  + Alternatives
* Contact form
* Conclusion “how you do your part to protect this planet?” + poll

1. What is your project about?

Deforestation + its causes and impacts

2. What is the data you plan to use?

* <https://fra-data.fao.org/assessments/fra/2020/WO/home/overview>
* <https://ourworldindata.org/deforestation>
* <https://ourworldindata.org/drivers-of-deforestation>
* <https://www.worldwildlife.org/magazine/issues/summer-2018/articles/what-are-the-biggest-drivers-of-tropical-deforestation#:~:text=Beef%20production%20is%20the%20top,and%20fourth%20biggest%20drivers)%20combined>
* <https://research.wri.org/gfr/forest-extent-indicators/deforestation-agriculture>

3. What is the question you plan to answer?

What is deforestation and why should I care?

4. Why is this an important question?

*What is the current situation?*

* Deforestation is occurring at a rapid rate with increased development and we are not sure how long more the earth can hang on to its last resources left.
* Up to 15 billion trees are now being cut down every year across the world.
* Since 1990, the world has lost more than 420 million hectares or about a billion acres of forest, mainly in Africa and South America.
* About 17 percent of the Amazonian rainforest has been destroyed over the past 50 years.
* Destruction of the Amazon rose by 21 percent in 2020, a loss the size of Israel.

*Causes of deforestation?*

* Farming, grazing of livestock, mining, and drilling:
  + combined account for more than half of all deforestation.
* Forestry practices, wildfires and, in small part, urbanization:
  + account for the rest
  + In Malaysia and Indonesia, forests are cut down to make way for producing palm oil
  + In the Amazon, cattle ranching and farms—particularly soy plantations—are key culprits
* Logging operations:
  + Loggers, some of them acting illegally, also build roads to access more and more remote forests—which leads to further deforestation
* Development:
  + Residential
  + Offices etc
* Not all deforestation is intentional:
  + Some is caused natural factors like wildfires and overgrazing, which may prevent the growth of young trees.

*Why should I care about deforestation?*

* Forests are vital for the health of our planet
* They provide food and shelter for biodiversity
  + More than half the world's land-based plants and animals, and three-quarters of all birds, live in and around forest
  + Eighty percent of Earth’s land animals and plants live in forests, and deforestation threatens species including the orangutan, [Sumatran tiger](https://news.nationalgeographic.com/2017/12/palm-oil-sumatran-tigers-extinction-big-cats-animals/), and many species of birds
  + Removing trees deprives the forest of portions of its canopy, which blocks the sun’s rays during the day and retains heat at night. That disruption leads to more extreme temperature swings that can be harmful to plants and animals.
* Forests have a big influence on rainfall patterns, water and soil quality and flood prevention
  + The South American rainforest, for example, influences regional and perhaps even global water cycles, and it's key to the water supply in Brazilian cities and neighbouring countries. The Amazon actually helps furnish water to some of the soy farmers and beef ranchers who are clearing the forest.
* People
  + Millions of people rely directly on forests as their home or for making a living
  + There are some 250 million people who live in forest and savannah areas and depend on them for subsistence and income—many of them among the world’s rural poor
* Climate change
  + Trees absorb and store carbon dioxide. If forests are cleared, or even disturbed, they release carbon dioxide and other greenhouse gases.  Forest loss and damage is the cause of around 10% of global warming
  + cutting trees both adds carbon dioxide to the air and removes the ability to absorb existing carbon dioxide.
* Health and diseases
  + With wild habitats destroyed and human life ever expanding, the line between animal and human areas blurs, opening the door to zoonotic diseases
  + In 2014, for example, the Ebola virus killed over 11,000 people in West Africa after fruit bats transmitted the disease to a toddler who was playing near trees where bats were roosting.

<https://www.nationalgeographic.com/environment/article/deforestation>

<https://www.wwf.org.uk/learn/effects-of/deforestation#:~:text=Trees%20absorb%20and%20store%20carbon,we%20don't%20stop%20deforestation>.

5. Which rows and columns of the dataset do you plan to use, to answer this question?