CS - 3
Group 11

K J Somaiya College of Engineering
A Constituent College of Somaiya Vidyavihar University
Course: Introduction to Project Based Learning

Template for carbon footprint Activity

Statement Given:

Calculate your carbon footprint, compare it with global average and list various measures that you will adopt to reduce your carbon footprint

Evaluation Criteria:

1. Calculations of carbon emissions from electrical consumption and transportation
2. Adaptable ideas for reducing carbon footprint
3. Your reflections and learning outcomes

Performance-10 Marks

Submission-05 Marks

Team

Sr No	Roll No	Name	Sustainable Idea Contribution
1	51	Shreya Nair	Research
2	52	Shreya Menon	Analysis
3	53	Shreyas Tatiya	Research
4	54	Shreyash Thakur	Analysis
5	55	Shriya Shetty	Research

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Carbon footprint Calculations:

Use provided calculator
https://www.tatasustainability.com/Environment/CarbonCalculator

Instructions:

1. **Details are required for a year (Calculate for a day and multiply accordingly)**
2. **Calculations are for per person (Divide electricity consumption and LPG at home by number of family members)**

CARBON FOOTPRINT CALCULATIONS					
Carbon Emission Activity ANNUAL	Team Members				
	1	2	3	4	5
	Shreya Nair	Shriya Shetty	Shreya Merlon	Shreyans Tatiya	Shreyash Thakur
Electricity Use per person(kWh)	100	100	100	100	135
Travel					
Air Travel (Km)					
Rail Travel (Km)				7200	40000
Metro Travel (Km)					
Bus Travel (Km)		400			
Electric Bus Travel (Km)		..			
Taxi /Cab/Auto Travel (Km)	1200				800
Private Vehicle			7200		400
Diesel (Litres)					9
Petrol (Litres)			330		28
CNG (Litres)					

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Fuel at Home **LPG (Kg)**	145	145	145	145	145
Food (Meals) **Put a Tick √ mark**					
Vegetarian	✓	✓		✓	✓
Non -Vegetarian			✓		
Vegan					
Total Carbon Footprint (Tonnes)	2·35	2·20	2·77	2·35	2·80
Comparison with Indian Average	1·80	1·80	1·80	1·80	1·80
Comparison with Global Average	4·50	4·50	4·50	450	450

Observations & Interferences:

In conclusion, ~~it~~ we have to take effective measures to bring our carbon foot print to less than the Indian average.

Measures to Reduce Carbon footprint:

	Measures you will implement to reduce your carbon footprint
1	Implementing the 3R's in each of our household
2	Using energy in a conservative manner.
3	Replacing usual products with eco-friendly products
4	Cut down on using ACs and elevators.
5	Reducing wastage of food.
6	Checking energy ratings of appliances before purchase.

Learning Outcomes and reflections on activity

From the above activity we learnt that most of our carbon footprint is greater than the avg. Indian carbon footprint, mainly because of travel. Hence, we need to find more sustainable forms of travel and also reduce carbon footprint in other ways possible.

Photos of the Activity

Identify SDGs which you connect and as an engineer contribute to.

Quality Education

As an engineer we can contribute to quality education in the following ways:-

1. Education Infrastructure
   Building reliable & resilient online infrastructure to reach out to the remote villages.

2. Curriculum Development
   Focusing more on practical learning and experience based learning from notable members of the industry.

3. Advocacy and Policy
   Engage with local & national authorities to influence decision-making for educational improvements.

SDG aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
It empowers individuals and equals the playing field in terms of education. Achieving this goal requires addressing root level problems such as access to education, teacher training, curriculum development and integration of technology in learning. Quality Education of SDG emphasizes the above. As an engineer we believe that through our learnings we can boost the current education quality by a huge margin.