

A low-angle, upward-looking photograph of a dense tropical forest. The image is filled with vibrant green foliage, including various types of leaves and ferns. Sunlight filters through the thick canopy, creating a dappled light effect. Several tall, slender tree trunks are visible, extending from the bottom towards the top of the frame. The overall atmosphere is lush and natural.

Generation Green

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For Starters...



Our project is based on reducing light consumption, educating ourselves and creating change for our future and the generations to come.

We started EcoOakville, an environmental conservation organization based in our school community and in our town.

Here were some of our goals that helped us accomplish reducing GHG consumption in our community:



Our Project Proposal

Our goal is to reduce GHG emissions in our school community, educate local youth & community to be more eco-friendly and on climate action through school-wide challenges, social media and attending workshops and conferences.

Every day we produce GHG emissions at our school community. Whether it would be heating the classrooms or creating waste (that ends up in landfills) or even hosting lunch days (meat-based foods like hot dogs, burgers etc.)

We targeted a major factor to GHG emissions in schools:

Light Consumption

Goals

- Reduce GHG consumption in our school community by reducing light consumption in classrooms (save at least 5000gCOe!)
- Educate students & staff on the importance of turning off the lights when possible
- Taking action outside of our school community, communicating with politicians, environmental consultants etc.

Specific Goals For Light Consumption Reduction:

- Reduce at least 1000g of carbon emission
- Save 2 school days worth of light



Process

1. Plan out steps and ideas
 - a. Create questions, goals and conditions
 - b. Consult with peers, teachers, community members
2. Track Progress
 - a. Record necessary data & other information
 - b. Notify staff, community and students
3. Make change
 - a. Get others on board
 - b. Educate youth and teachers
 - c. Start reducing little by little
4. Results
 - a. Track new measurements
 - b. Display progress &

13 CLIMATE ACTION



The Math Behind The Project

	A	B	C	D	E	F
1	Week 1:	Monday	Tuesday	Wednesday	Thursday	Friday
2	RM 1	2440.4	2440.4	2440.4	2440.4	2440.4
3	RM 2	6424.32	6424.32	6424.32	6424.32	6424.32
4	RM 3	2988.16	2988.16	2988.16	2988.16	2988.16
5	RM 4	2688	2688	2688	2688	2688
6	RM 5	6481.92	6481.92	6481.92	6481.92	6481.92
7	RM 6	6419.84	6419.84	6419.84	6419.84	6419.84
8	RM 7	5976.32	5976.32	5976.32	5976.32	5976.32
9	RM 8	4803.84	4803.84	4803.84	4803.84	4803.84
10	RM 9	4608	4608	4608	4608	4608
11	RM 10	4861.44	4861.44	4861.44	4861.44	4861.44
12	RM 11	4803.84	4803.84	4803.84	4803.84	4803.84
13	RM 12	6830.08	6830.08	6830.08	6830.08	6830.08
14	RM 13	9338	9338	9338	9338	9338
15	RM 14	3414.04	3414.04	3414.04	3414.04	3414.04
16	RM 15	2434.56	2434.56	2434.56	2434.56	2434.56
17	RM 16	7620.48	7620.48	7620.48	7620.48	7620.48
18	RM 18	2688	2688	2688	2688	2688
19	RM 19	5976.32	5976.32	5976.32	5976.32	5976.32
20	RM 20	5437.32	5437.32	5437.32	5437.32	5437.32
21	RM 21	2988.16	2988.16	2988.16	2988.16	2988.16
22	RM 22	2652.16	2652.16	2652.16	2652.16	2652.16

Baseline (week 1)

	A	B	C	D	E	F
1	Week 1:	Monday	Tuesday	Wednesday	Thursday	Friday
2	RM 1	0	0	0	0	0
3	RM 2	5671.68	5671.68	2163.84	1792	5376
4	RM 3	2988.16	2988.16	1939.84	1344	2240
5	RM 4	2688	2688	2016	2688	1792
6	RM 5	2688	2688	2016	2688	2688
7	RM 6	2652.16	2652.16	2016	2652.16	1792
8	RM 7	4928	5223.68	2988.16	1792	3584
9	RM 8	2304	2561.28	2561.28	2304	2304
10	RM 9	5122.56	2561.28	3709.44	3456	4608
11	RM 10	1643.52	1556.48	3857.92	1556.48	1472
12	RM 11	1536	1617.92	3709.44	1617.92	2048
13	RM 12	4776.96	6318.08	4602.88	3072	5120
14	RM 13	1864	2800	6342	4480	0
15	RM 14	2016	2142.72	3214.08	1008	3409.92
16	RM 15	3415.04	3240.96	3415.04	1448.96	2216.96
17	RM 16	4695.68	4695.68	4695.68	4695.68	4224
18	RM 18	2688	2688	2688	1792	1792
19	RM 19	5122.56	5122.56	4861.44	2688	2688
20	RM 20	2688	2983.68	2688	1792	1792
21	RM 21	2688	2835.84	2688	1792	1792
22	RM 22	2835.84	2688	2983.68	1792	1792

After (week 1)

Before we started reducing emissions, we calculated that on average, each classroom used about 5 kilowatts per day (110 kw/day)

$$5 \text{ (kw)} \times 22 \text{ (classrooms)} = 110 \text{ kilowatts}$$

$$5 \text{ (kw)} \times 25 \text{ (office, library, storage rooms etc.)} = 125 \text{ kilowatts} \\ = 235 \text{ kilowatts/day}$$

If you take other rooms into consideration, our school uses 235 kilowatts per day for powering the lights alone

$$5 \text{ (kw)} \times 22 \text{ (classrooms)} = 110 \text{ kilowatts} \\ = 4700\text{gCOe/day}$$

Some days, a classroom could use up to 10 kilowatts per day!

After we started reducing emissions, we got the class average down to 2.9 kilowatts per day (41% less!)

$$5093.76 \text{ (baseline average)} - 2950.7512 \text{ (reduction average)} = 2143 \text{ kilowatts}$$

$$2143 / 5093.76 = 0.42 \text{ (42\% less!)}$$

The total consumption of each baseline went down by 32%

$$60.81 \text{ (baseline)} - 41.26 = 19.55$$

$$5 \text{ (kw)} \times 22 \text{ (classrooms)} = 110 \text{ kilowatts}$$

During three weeks of reducing emissions, we saved 400 kilowatts, equal to 4-6 days of light!

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$$25540.56\text{gCOe} - 16502.2\text{gCOe} = \\ 9038.36\text{gCOe}$$

Impact Result

- After we started reducing emissions, we got the class average down to 2.9 kilowatts per day (41% less!)
- The total consumption of each baseline went down by 32%
- During three weeks of reducing emissions, we saved 400 kilowatts, equal to 4-5 days of lights
- 9038.36g for carbon, emissions were saved in 15 days, which is approximately 602g per day!



Accomplishments

- We educated fellow students and other youth
- inspired other students to take action and try to help in their daily life
- We met with politicians like Pam damoff and David Miller
- Attending the “youth climate action forum” held in Windsor's
- We met others with the same passion
- Earned new experiences and opportunities



Special Thanks To...

A teacher for being a supportive teacher and helping us get the message across to school staff

Rayna, Bianca, Ece, Yusuf for helping us reach our goals and helping us collect important data

School Staff & Council for taking our ideas into consideration and encouraging us to follow our passions and dreams

And everyone who helped our project
becoming success!