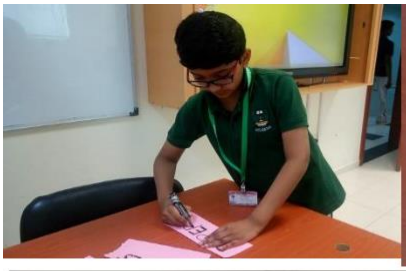
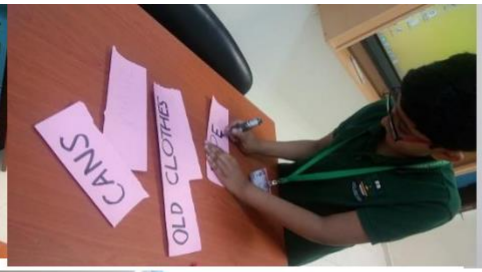
“Think in a sustainable way, for a better day!”
An insight into the CAMPAIGNING on ‘Need to Reduce Waste’ and ‘Necessity of Proper Waste Segregation’

A brief campaigning initiated by the members of *Panchatatva* triggered off the activities of the Eco Club for the academic year 2019- 2020. An elaborate presentation on the nature of waste, need to reduce waste and ways that may be adopted to reduce waste helped the students realize and take the issue serious. The support and cooperation extended from their end energized the Club members to put in a sincere effort. The program was wound up with a brief insight into the ‘conservation of waste’ and how it can be affected in the school in order to remain sustainable.


“Time is the only thing we can’t recycle!”
PREPARATION FOR PROPER SEGREGATION OF WASTE

Taking time out of the busy schedule of exams and activities, members of the *Panchatatva* Eco Club pioneered the preparatory phase of waste segregation which included making stick- banners for various types of waste and allotment of separate corners for each kind of waste in the ‘RENEWABLES’ room. Grade 6 members volunteered the setting up of the ‘RENEWABLES’ room with enthusiasm and readiness. Motivation and encouragement supported by guidance and suggestions made the task easier and appreciable.



‘No need to debate, Go green before it’s too late”

A quick glance at the Waste Segregation Process

The process of segregation of waste and recording details found a lot more organized approach and systematic working pattern since the second meeting of the Waste Audit Team. The members of grades 6, 7 and 8 effected a sincere and effective segregation in the boys section in amazing co-ordination and interest.












“No one can help everyone, but everyone can help someone”
A glimpse into students making donations to Red Crescent

“ *You are what you do, not what you say you’ll do*” – proving the saying true, the eco- club waste audit team of the school directed the humble gesture initiated by the students across the school to donate old usable clothes and commodities collected not just from the family circle but extended to the sphere of immediate neighbourhood and friends.









“Cleaning Is A Practice, Not A Project”

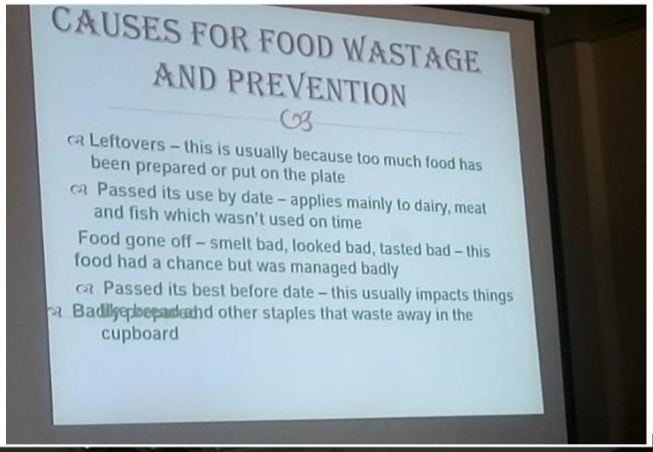
STUDENTS IN ACTION – DISCARDING THE WASTE : AVERDA AGENCY assisting

The boys across the school volunteered to discard the waste that was collected and segregated in the RECYCLABLES room as part of the organized Waste Audit initiatives. A warm note of gratitude for the staff and volunteers of the AVERDA AGENCY who ensured a smooth process by extending their assistance throughout…

“Before you complain about the taste of your food, think of someone who has nothing to eat.”

CAMPAIGN TO ENSURE REDUCED FOOD WASTAGE

It is an undeniable fact that changing lifestyle has far reaching impact on the food habits of students of this generation. Hence, considering growing tendency to waste food as a major concern among students, the waste audit team volunteered the second phase of campaigning targeting least food wastage. A mass campaign pioneered for the secondary boys (Grades 6 -9) was held in the Common Assembly area (Gymnasium) which was well received by the audience. Subsequent change in the attitude to reduce food wastage is a matter worth noting in this context.



SURVEY

A general survey as part of task 5 was conducted among the different sects of the school population – students, teachers and the management. The survey aimed at studying the level of awareness among them in the appropriate segregation and disposal of the biodegradable and non – biodegradable waste in the school premises.

SURVEY AMONG THE MANAGEMENT



SURVEY AMONG THE ADMINISTRATION DEPARTMENT




SURVEY HELD AMONG STUDENTS




REPORT ON ACTIVITY : PAPER BAGS

ACTIVITY IN BRIEF :

As a part of the Eco Club activity students across the school made paper bags in their Art and Work experience periods thus bringing out creativity and artistic talents.

As per the description the students old news papers and Magazines etc. brought by the students were turned into attractive bags of all shapes and sizes .

Students conducted an awareness program to the parents regarding reusable products and distributed the paper bags made by them to parents and other guests.

PAPER BAGS ON DISPLAY:

AWARENESS CAMPAIGN TO THE PARENTS:

Science Fair For Environmental

Innovations Venue: Al Ain Zoo

Students from our school participated in a Science Fair for Environmental Innovations, organized by Al Ain Zoo in association with Abu Dhabi Desert Learning Centre and Department of Education and Knowledge.

The main idea of the project was to produce electricity from the bicycle, as well as keeping our health stable. The entire setup will generate electricity from the bicycle and converts DC voltage into AC, and the converted electricity will be utilized for daily purposes.

The bicycles were collected from various thoughtful parents and students in our School.

Our project won the appreciation of many dignitaries and representatives from the U.A.E. Ministry, Media and Directors of the Desert Learning Centre and senior members of the Environmental Innovation Committee.

Students and teachers from different schools and colleges were very happy to participate in our practical applications and presentation. We had also created an invention on the bicycle in which, one could charge their mobile phone or electronic gadgets from the bicycle by pedaling and producing the current to charge the device.

EXCERCISE BIKE IN TO ENERGY BIKE –INNOVATION

OBJECTIVE: **Energy Bike provides an opportunity to demonstrate**

- **Energy concepts in unique and memorable ways.**
- **It allows riders to experience their energy being transformed into light energy.**
- **It promotes energy conservation and teaches lighting technology**.

PRINCIPLE:

Conversion of mechanical energy to electrical energy.

AMOUNT OF ELECTRICITY PRODUCED: **12 V which is converted into 240 volts**

CLASS ROOM LIT UP BY ENERGY BIKE: **9AF**

WORKING

When a person peddles, the wheel on the cycle will drive a fly wheel which drives the generator. This will charge the battery and electricity is saved. As an alternative measure it is connected to the solar panel, so that it supply a continuous source of energy even if the students are not peddling.

WASTE AUDIT

REUSE
REDUCE
RECYCYLE

WASTE AUDIT REPORT (2017 -2019)

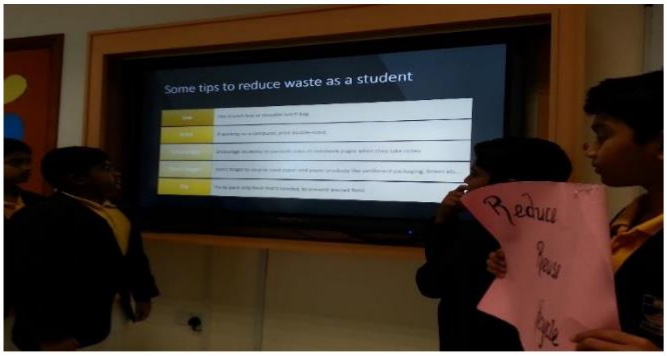
The Waste audit group which is a part of eco – club tries to make waste management system of our school more effective through the ongoing activities.

Create awareness programme across the school.

The boys across the school volunteered to discard the waste that was collected and segregated in the RECYCABLES room as a part of the organized waste audit initiatives.

An elaborate presentation on the nature of waste, need to reduce waste and ways that may be adopted to reduce waste helped the students realize and take the issue serious.

campaigning on " Need to Reduce Waste "



Waste segregation process :

WASTE AUDIT REPORT:

Create awareness programme across the school.

The boys across the school volunteered to discard the waste that was collected and segregated in the RECYCABLES room as a part of the organized waste audit initiatives.

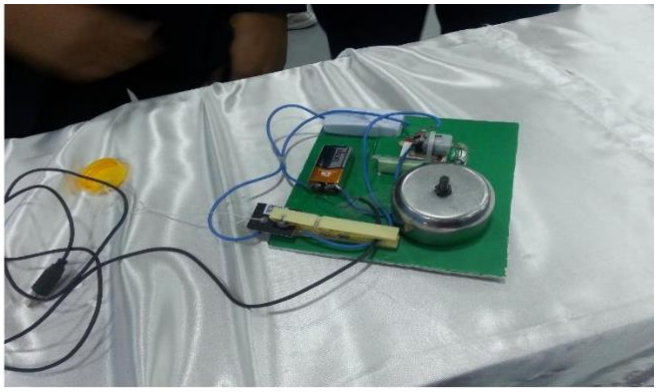
An elaborate presentation on the nature of waste, need to reduce waste and ways that may be adopted to reduce waste helped the students realize and take the issue serious.

Recycled waste products in an innovative way

1. Card board
2. Rechargeable Battery
3. Bottles
4. Solar panel
5. Motor and Propellers
6. Syringe
7. Wheels
8. Switches
9. Disposable cups
10. Foam boards
11. Electric Wire Bulb
12. Disposable plates
13. Balloon
14. Straw

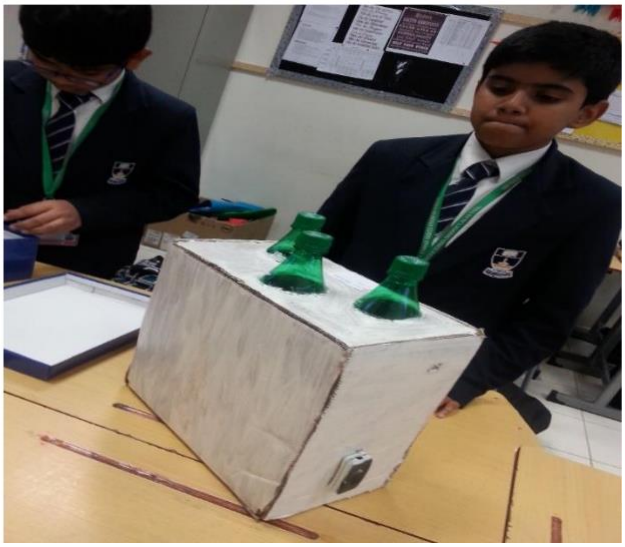
OUTCOMES

Home made projector



Door Bell

Vaccum Cleaner

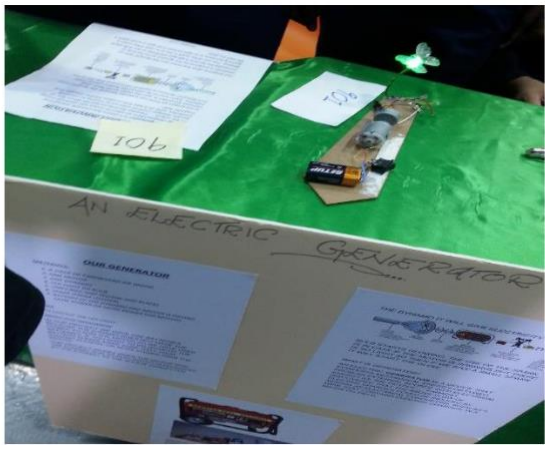


Air cooler

Hydrolic Arm

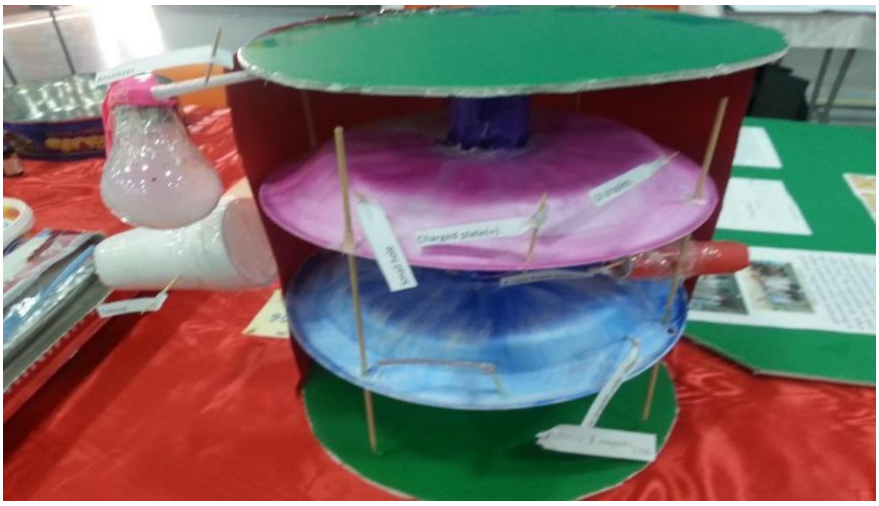
Projector

Home made table fan



Electric Generator

Millican’s oil drop experiment Device Model



WASTE AUDIT

We the students of the waste audit collected and organized different types of recyclable items such as old clothes, plastic, milk cartons, newspaper, etc. as a part of our waste audit activity.

But why do we need to recycle and what are the advantages of recycling??? we need to recycle because: Harmful chemicals and greenhouse gasses are released from rubbish in landfill sites. Recycling helps to reduce the pollution caused by waste. Habitat destruction and global warming are some the affects caused by deforestation. Recycling reduces the need for raw materials so that the rainforests can be preserved. Huge amounts of energy are used when making products from raw materials. Recycling requires much less energy and therefore helps to preserve natural resources.

The advantages of recycling are:

Recycling minimizes pollution. Protects the environment.

Recycling minimizes global warming. Conserves natural resources.

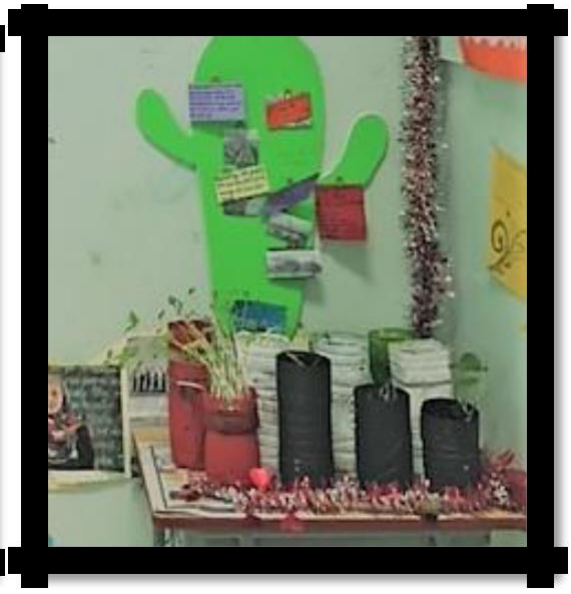
Recycling cuts down amount of waste in landfill sites.

Recycling ensures sustainable use of resources Reduces energy consumption.

It was fun to be a part of a good initiative that helps in keeping the environment clean and green

- *An indoor garden was set up in the girls section in order to Reduce:-*
- *Carbon dioxide levels.*
- *Levels of certain pollutants.*
- *Airborne dust levels.*
- *And to keep air temperature down.*

SUB IRRIGATED PLANTS in plastic water bottles.



Plants with drip watering system making use of recyclable milk cans and plastic water bottles.

INDOOR GARDEN DEVELOPED IN PRIMARY AND BOY'S SECTION AREA

Using recyclable yoghurt tubs

Our school commerce students are generous e to donate Dhs.595 to our eco club which they have earned through commerce market. With that fund, our eco club has purchased nearly 60 plants and they have been placed in our primary and

boys section area as an act of reducing indoor air pollutants and enhancing the indoor air quality.

PROJECT WORK ON WASTE MANAGEMENT SYSTEM IN SCHOOL

ORGANIC WASTE COLLECTION FOR COMPOSTING IN COMPOST PIT

CLASS: 5 (BOYS AND GIRLS)
OBJECTIVE: To evaluate the importance of organic waste such as vegetable and fruit peels as a resource of nutrients that can be reused by composting in the compost pit maintained in the school. As a result of the activity involving the waste management through composting the children analyses the importance of recycling biodegradable waste. The students understood the uses of compost pit in making manure for the school garden.
TEACHERS IN CHARGE: Ms. Preetha.V.S, Ms. Vidya Rakesh, Ms. Supriya & Ms. Seema Raneesh. (EVS teachers) .
TASK: Group activity
COMPETENCE: Creativity, Team work
VALUE: Respect, Care
SKILLS TO DEMONSTRATE

- Presentation
- Organization
- Generalization

PROCEDURE

- The students from grade 5 in primary section formed 2 groups from each class consisting of 5 students in each group.
- They selected the one monitor from each group.
- The monitors with their group from Grade 5 boys section went to each class in school and collected the waste materials like fruits and vegetable peels.
- The monitors went to the compost pit and put the waste inside the pit every day.
- A group of children from grade 5 girls section under the leadership of Druti Patil conducted an awareness programme on the need of maintaining a compost pit in school.

PROJECT WORK ON WASTE MANAGEMENT SYSTEM IN SCHOOL

ORGANIC WASTE COLLECTION FOR COMPOSTING IN COMPOST PIT

ECO CLUB…

FEEL GREAT TO BE A PART OF IT……

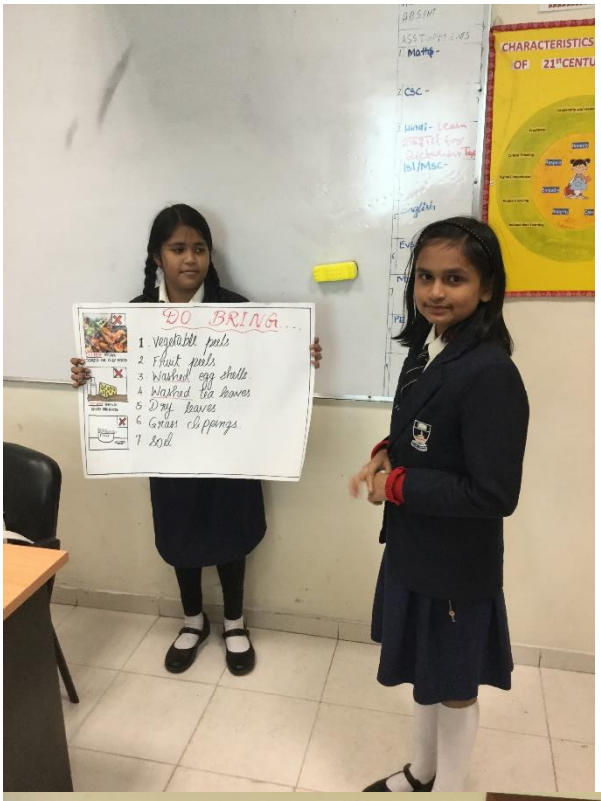
I was not having a first-hand experience on recycling the green wastes into useful products-Composting… It was really an exciting experience for me as well as the students. We started the campaigning without expecting such a mass response

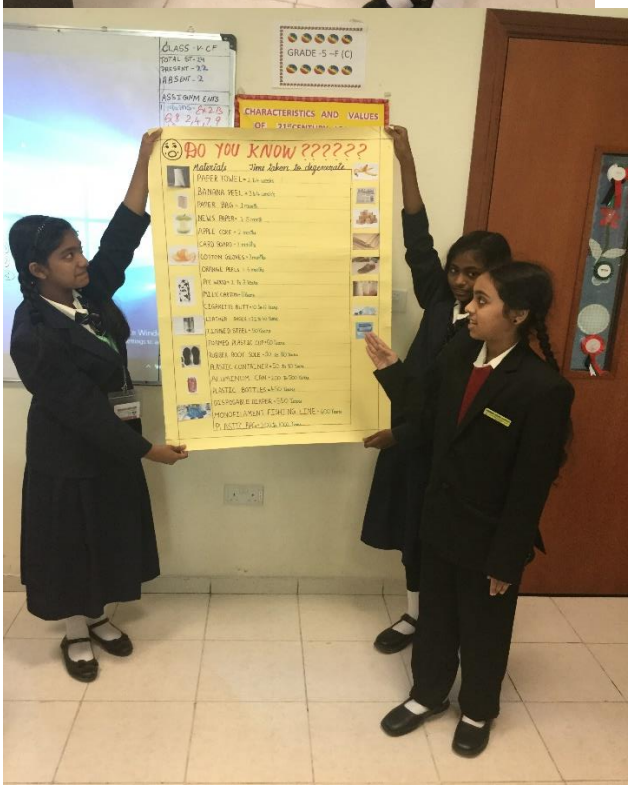
from the students' side. But now it is heading towards a great success…

What is composting??????????

*In a nutshell, **compost** is decomposed organic matter. **Composting** is a natural process of recycling organic material such as leaves and vegetable scraps into a rich soil amendment that gardeners fondly nickname Black Gold. Applying **compost** to the soil starts a biological process that **decomposes organic** matter and builds soil. ... Conversely, **compost** helps unite the coarse particles in sandy soils so they can retain water and nutrients longer. Either way, your plants get a steadier flow of nutrients and water for optimum growth.*

Ultimately, in turn to what we receive from our mother Earth, we should be bountiful in giving returns to heal her wounds which are created by her own children. So let us join our hands to initiate a movement to build a greener world… At least we can be a pioneer group to flash the light for the coming generations.

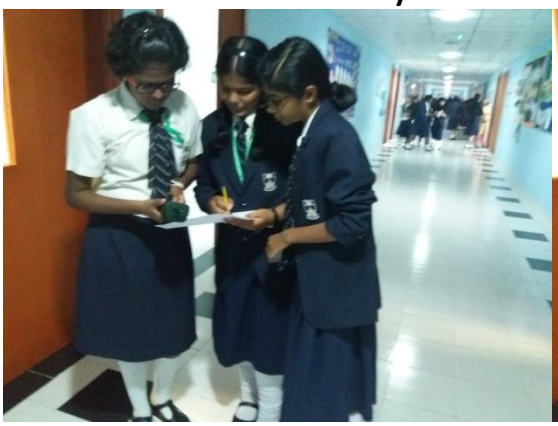




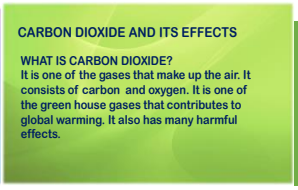
Campaigning

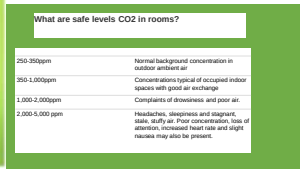
Internal Project – To reduce CO_2 level in Indoor Air 2019-2020

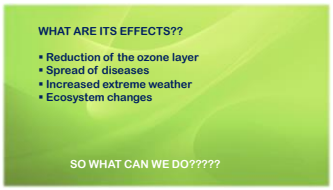
Students of Grade 8 have measured the amount of co_2 present in door air for 12 days .

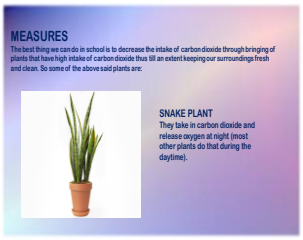


They observed co_2 level is high. They conducted awareness classes.









Students kept plants in each class room and corridors in order reduce the co_2 level.

After keeping the plants, they have taken the co_2 measurement once again for one week. They found the average level of co_2 from the five consecutive days (before and after keeping the plants)and found the increase or decrease percentage

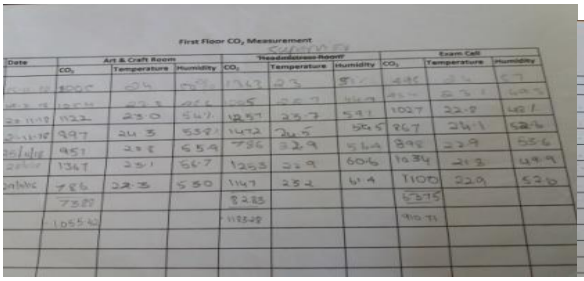
Sl No	Floor	Corridor	Co2 Measurement	(Avg of 5 days)		
			Before Keeping Plants	After Keeping Plants	INCREASE %	DECREASE%
1	Ground F	Near JKG J	878	735		16.2
2	Ground F	Near JKG D &E	989	822		16.8
3	Ground F	Near SKJ	856	658		23.1
4	First	Near 4A	1201	1199		0.16
5	First	Near 3A	1421	1421		0
6	First	Near Exam Cell	1248	1286	3.04	
7	Second	Near Physics Lab	857	832		2.9
8	Second	Near 8BF	1097	1039		5.2
9	Second	Near 6 AF	813	805		0.98

They found decrease in co_2 level in most of the places. They decided to keep more plants in order to reduce co_2 level further.

Internal Project – To reduce CO_2 level in Indoor Air 2018-2019

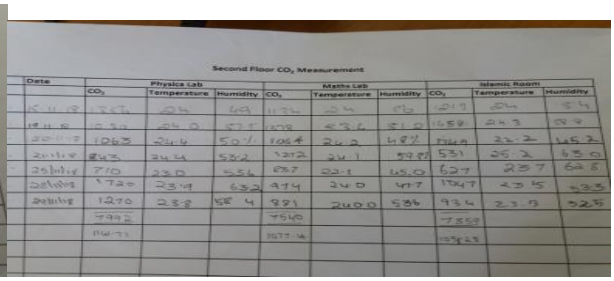
This project is the continuation of last year project. Grade 9 students conducted awareness about the need to keep indoor plants to reduce CO_2 level in indoor air.

Grade 8 Students measured the amount of co_2 present indoor air for 7 days . They calculated the average of 5 days and also found the increase or decrease percentage in each area.



First Floor CO_2 Measurement

Date	Art & Craft Room			Headmistress Room			Exam Cell		
	CO_2	Temperature	Humidity	CO_2	Temperature	Humidity	CO_2	Temperature	Humidity
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22-11-18	1122	23.0	54%	1257	23.7	58%	1027	22.8	48%
23-11-18	997	24.3	55%	1472	24.5	56.5	967	24.1	52%
24/11/18	951	23.8	54%	1286	22.9	54%	898	22.9	55%
25/11/18	1367	23.1	56%	1253	22.9	60%	1034	21.3	49%
26/11/18	786	22.3	55.0	1147	23.2	61.4	1100	22.9	52%
	7587			8283			5375		
	1055.6			1183.8			910.71		

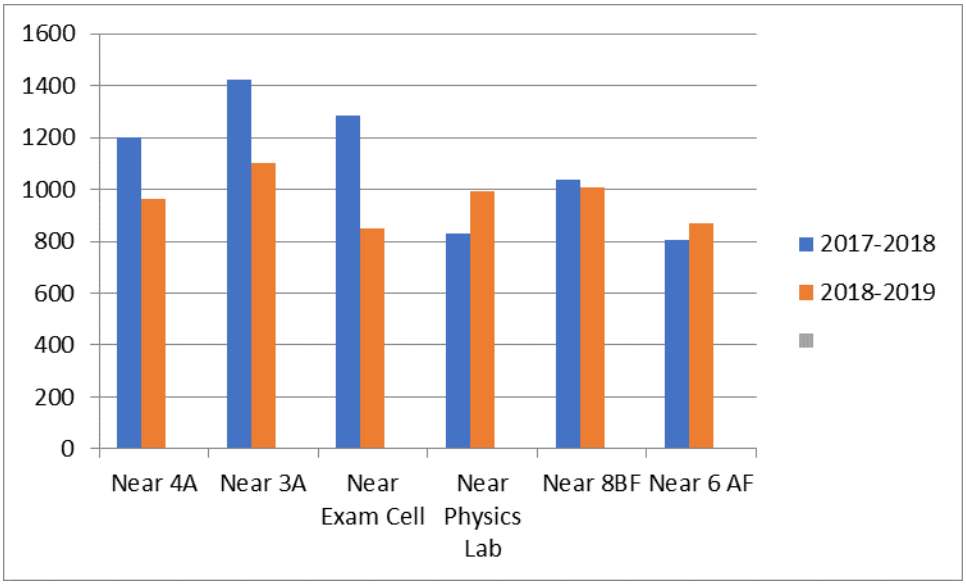


Second Floor CO_2 Measurement

Date	Physics Lab			Maths Lab			Islamic Room		
	CO_2	Temperature	Humidity	CO_2	Temperature	Humidity	CO_2	Temperature	Humidity
[illegible]	[illegible]	[illegible]	69	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	678	23.6	51.0	1158	24.3	58.9
20-11-18	1063	24.6	50%	1064	24.2	48%	1069	23.2	45.2
21-11-18	843	24.4	58.2	1372	24.1	49.8	531	25.2	65.0
22/11/18	710	23.0	55.6	857	22.1	45.0	627	23.7	60.8
23/11/18	1720	23.9	63.2	914	24.0	47.7	1047	23.5	53.5
24/11/18	1270	23.8	58.4	881	24.0.0	53.6	934	23.3	52.5
	7992			7540			7359		
	1141.71			1077.4			1051.29		

Sl No	Floor	Corridor	Co2 Measurement (Avg of 5 days)				
			2019-2020	2018-2019	INCREASE %	DECREASE %	Reason
1	First	Near 4A	1199	963.2		19.6	Kept Plants
2	First	Near 3A	1421	1101.6		22.4	Kept Plants
3	First	Near Exam Cell	1286	847.6		34	Kept more number of plants
4	Second	Near Physics Lab	832	993.2	19.3		Increased no. of classes
5	Second	Near 8BF	1039	1005.6		3.2	
6	Second	Near 6 AF	805	870.4	8.1		Increased no. of classes

Co2 measurement in the internal air 2017-18 and 2018-19



Bicycle to Recycle Project

Pedals on Metals

Started with Collection of Old Bicycles from Parents and Teachers ,with announcements in the PA system ,morning assembly as well as uploading an circular requesting for old bicycles conveying the motto behind this project.
It took quite a lot time to collect the bicycles, once collected we started working on the design and technical stuffs

Project is on process, we already started implanting these systems in the lounge areas . Students and teachers pedal here, when they are free and in the break time, generated electricity will be stored in the batteries and converted it into an alternate current and used for the lighting and other daily usage.

For now we have installed these bicycles at second floor girls block and Grade 1 area. In Secondary girls block we are generating 240 v electricity after converting it from 12v battery and resultant power is been used to lit one of the classrooms in same area.

Energy Produced - Total Energy produced = 12 V - 5AH converted into AC 240V using an inverter. 3 Hours of cycling produces enough electricity to lit up one entire classroom for 3 hours if used as a DC directly and 1 Hour if used it as a converted AC power.

Backup - When there is no much physical activity during the break hours, battery may drain fully resulting in lowering the voltage level. for that we have connected a 50W, solar panel on the roof to take over the energy needs, when there is no cycling activity.

We have collected around 20 bicycles as of now and will installing these in all the areas,as well as taking the concept to the community as a out reach program, to get good health and sustainable electricity Bicycle to Recycle is a Very Good Choice.

We represented the school in Al Ain Zoo Sustainable Exhibitions and got appreciation from the authorities for the idea. Gaining health and producing enough electricity is our challenge and we are working towards it to achieve best possibel results.

Students of Of Our team represented and showcased this best practive in the Abu Dhabi Science Festival 2019, and stood first in the field of sustainability and life sciences, and won Innovator 2019 award.

REDUCE, RECYCLE, REUSE, REFUSE, REPLACE

ADISEARCH WITH RECYCLED TABS

Students made adisearch tabs with the recycled E-waste tabs. This adisearch tab is installed in girls section where they search their doubts related to their subjects. Students of ecoclub collected the e waste from whole school and gave to innovation club. Where they try to recycle the electronic things which are in good condition.

EDIBLE PLASTIC

Students made edible plastic and edible plates and spoons. In order to reduce the use of plastic our students made edible plastic and edible plates and spoons. They made this in school lab which made them understood that how we can use edible spoons in place of plastic spoons. If this kind of things are provided to restaurants then so much amount of disposable spoons can be reduced. Edible plastic can be eaten if we wrap a chocolate in it. It can be used to cover food.