

2.3.1: Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences using ICT tools

Participative learning

(Sample copies of each activity attached)

Sr. No.	Activity	Department	Type of document	ICT tool used
1.	Practical	Physics	Time table, journal certificate, index	PPT for graph
2.	Group discussion	Physics / English	Report of activity and list of students	Mobile, computer, apps, online platforms
3.	Seminars / Viva Voce	English / Physics	Report of activity and list of students	PPT, smart board etc.
4.	Group project	Geography	EVS projects	GPS, Mobile applications

Roll No.: 72

Exam. Seat No.

"Education through self - help is our motto" - KARMAVEER
RAYAT SHIKSHAN SANSTHA'S

**Dada Patil Mahavidyalaya,
Karjat
Dist. Ahmednagar**



CERTIFICATE

Department of PHYSICS

Date : / / 20

This is to certify that Mr. / M^{rs}. Sarode Abhijeet Ramkrushna

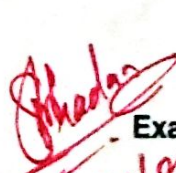
has satisfactorily carried out required practical work, prescribed by the

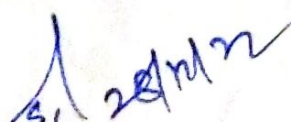
Savitribai Phule University, Pune for the B. Sc.- I, B. Sc.- II, B. Sc.- III

course in **Physics**

and this journal represents his / her bonafide work in the year 2022 - 2023


Teachers Incharge


Examiners
31/12/22


Head Department of
Physics

INDEX

Sr. No.	Name of Experiment	Page No.	Date	Remark	Signature of Incharge
01	Logic gates	01	12-11-22	C	Bunp
02	Use of CRO	03	15-11-22	C	Arun
03	characteristics of VJT	04	15-11-22	C	Bunp
04	Transistor characteristics	06	22-11-22	C	Arun
05	zener as a regulator	09	22-11-22	C	Arun
06	Plotting trigonometric functions	11	26-11-22	C	Arun 27/11/22
07	eq for circle, parabola and hyperbola	13	26-11-22	C	
08	circuit diagram	16	26-11-22		
09	mini-project → uni-junction transistor	20	24-12-2022	C	



Name of the college: Dada Patil college

Subject: physics

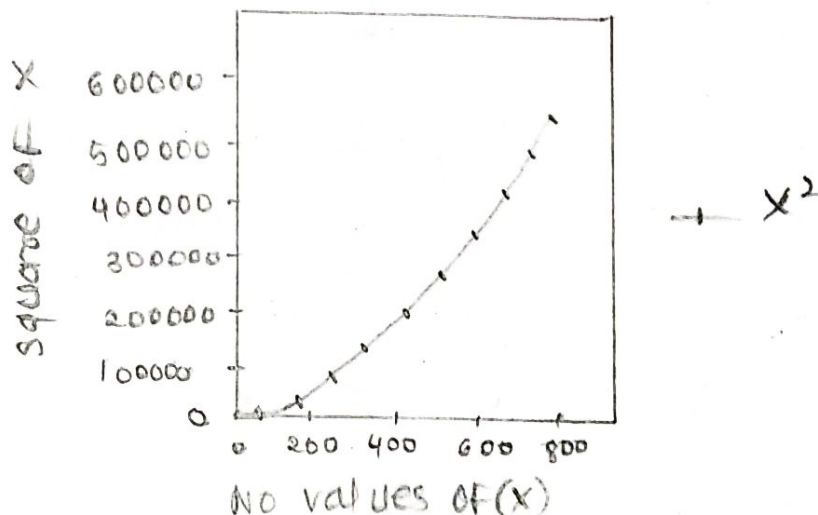
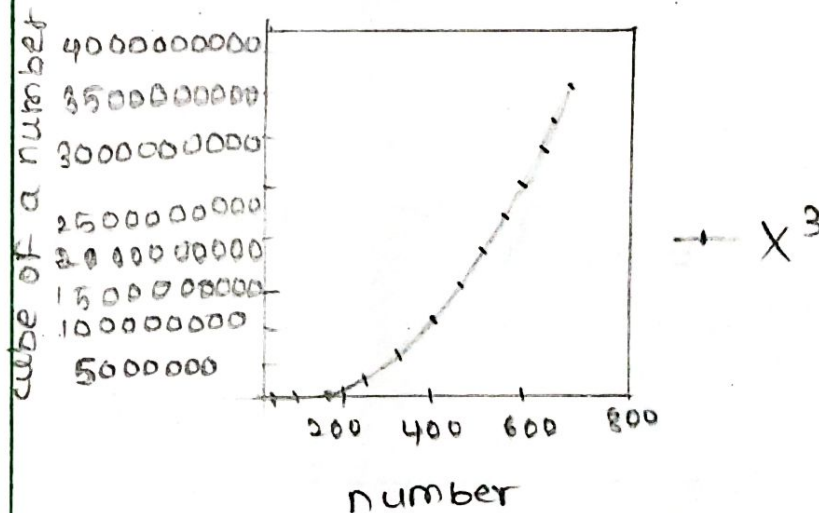
Expt. No.

Date

Name: Sarade A.R. Class: SY Batch: Roll No.: 72

Title of Expt.: Plotting trigonometric functions

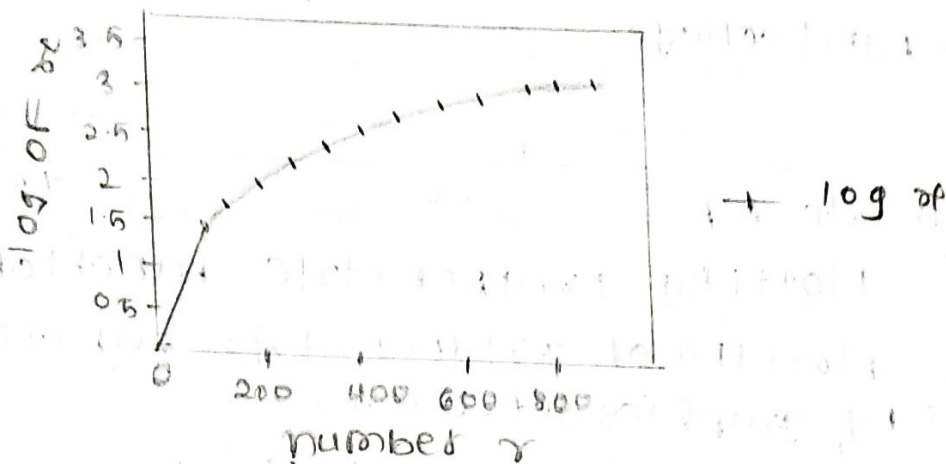
Aim - plotting of trigonometric functions using graphics software.

1) Graph of x vs sq of x 2) Graph of x vs cube of x 

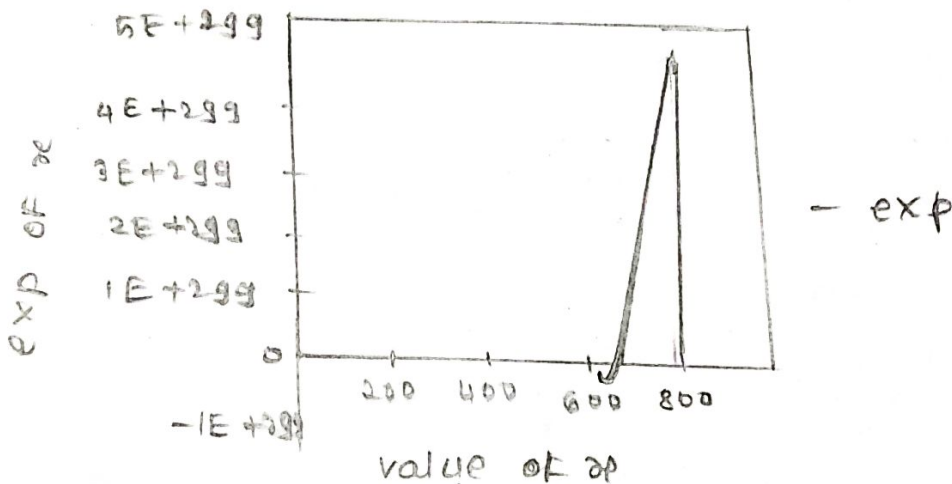
Remarks

Signature

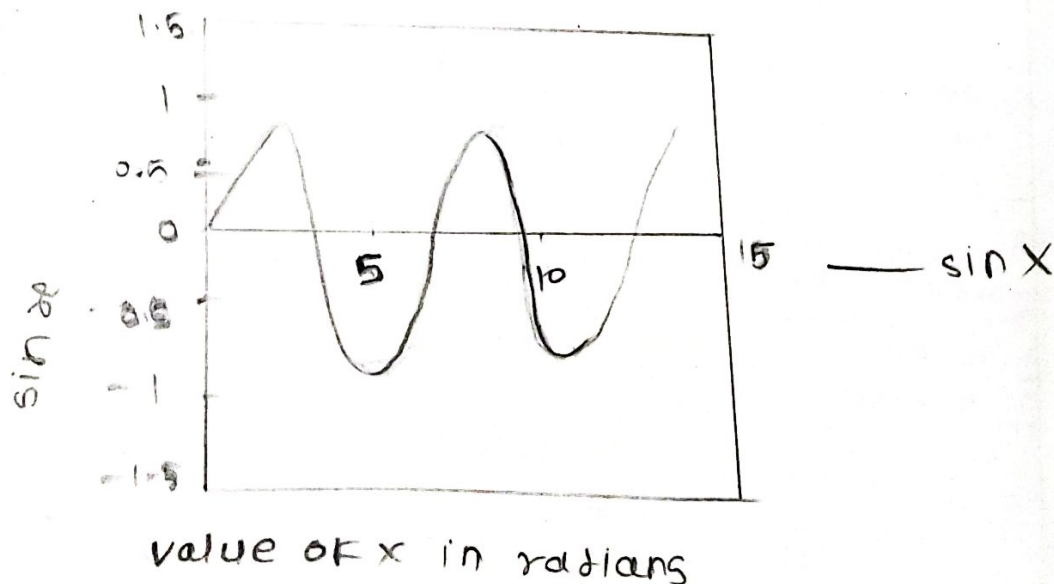
37 Graph of x vs $\log x$



47 Graph of x vs $\exp x$



57 Graph of x in rad vs $\sin x$



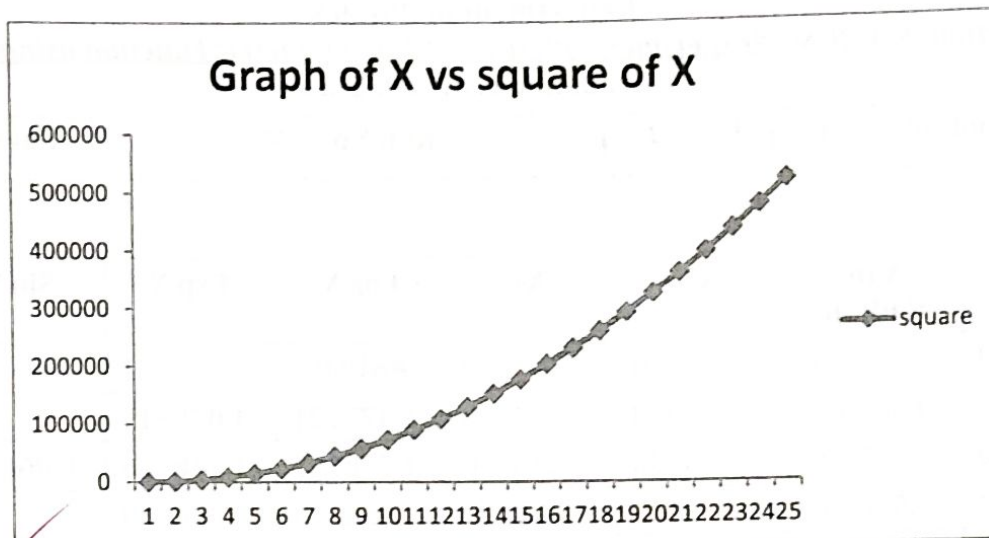
Name of the Student: Somade A-R. Roll No.: 72 Date: / /2022.

Sr. No.	X in degree	X in Radian	X ²	X ³	Log X	Exp X	Sin X	Cos X
01	0	0	0	0	#NUM!	1	0	1
02	30	0.523599	900	27000	1.477121	1.07E+13	0.5	0.866025
03	60	1.047198	3600	216000	1.778151	1.14E+26	0.866025	0.5
04	90	1.570796	8100	729000	1.954243	1.22E+39	1	6.13E-17
05	120	2.094395	14400	1728000	2.079181	1.3E+52	0.866025	-0.5
06	150	2.617994	22500	3375000	2.176091	1.39E+65	0.5	-0.86603
07	180	3.141593	32400	5832000	2.255273	1.49E+78	1.23E-16	-1
08	210	3.665191	44100	9261000	2.322219	1.59E+91	-0.5	-0.86603
09	240	4.18879	57600	13824000	2.380211	1.7E+104	-0.86603	-0.5
10	270	4.712389	72900	19683000	2.431364	1.8E+117	-1	-1.8E-16
11	300	5.235988	90000	27000000	2.477121	1.9E+130	-0.86603	0.5
12	330	5.759587	108900	35937000	2.518514	2.1E+143	-0.5	0.866025
13	360	6.283185	129600	46656000	2.556303	2.2E+156	-2.5E-16	1
14	390	6.806784	152100	59319000	2.591065	2.4E+169	0.5	0.866025
15	420	7.330383	176400	74088000	2.623249	2.5E+182	0.866025	0.5
16	450	7.853982	202500	91125000	2.653213	2.7E+195	1	3.06E-16
17	480	8.37758	230400	1.11E+08	2.681241	2.9E+208	0.866025	-0.5
18	510	8.901179	260100	1.33E+08	2.70757	3.1E+221	0.5	-0.86603
19	540	9.424778	291600	1.57E+08	2.732394	3.3E+234	3.68E-16	-1
20	570	9.948377	324900	1.85E+08	2.755875	3.5E+247	-0.5	-0.86603
21	600	10.47198	360000	2.16E+08	2.778151	3.8E+260	-0.86603	-0.5
22	630	10.99557	396900	2.5E+08	2.799341	4E+273	-1	-4.3E-16
23	660	11.51917	435600	2.87E+08	2.819544	4.3E+286	-0.86603	0.5
24	690	12.04277	476100	3.29E+08	2.838849	4.6E+299	-0.5	0.866025
25	720	12.56637	518400	3.73E+08	2.857332	#NUM!	-4.9E-16	1

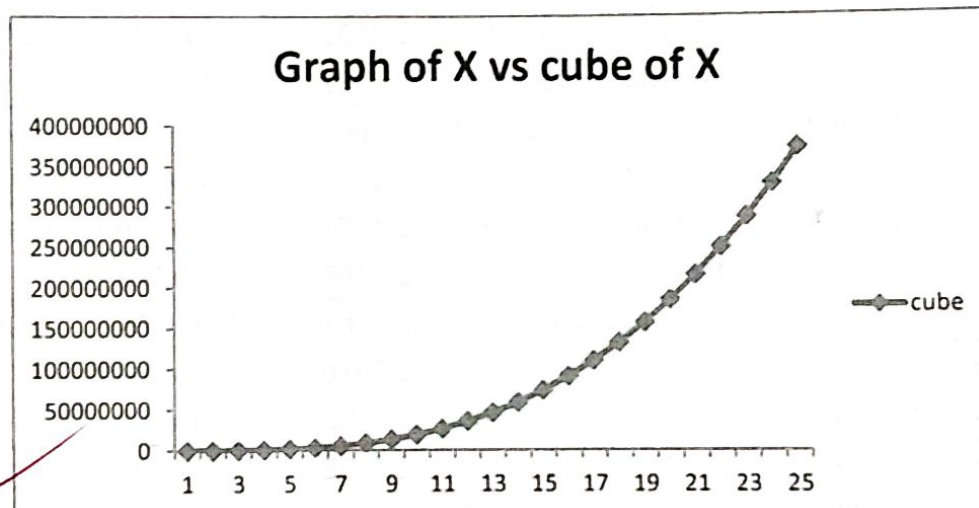
Remark

Teacher Signature

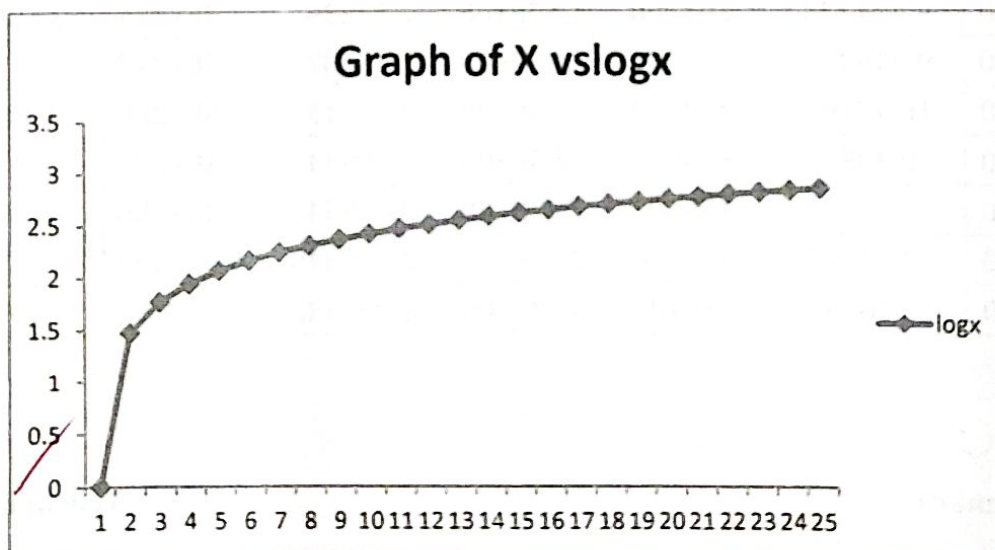
Graph I: X Vs. Square of X



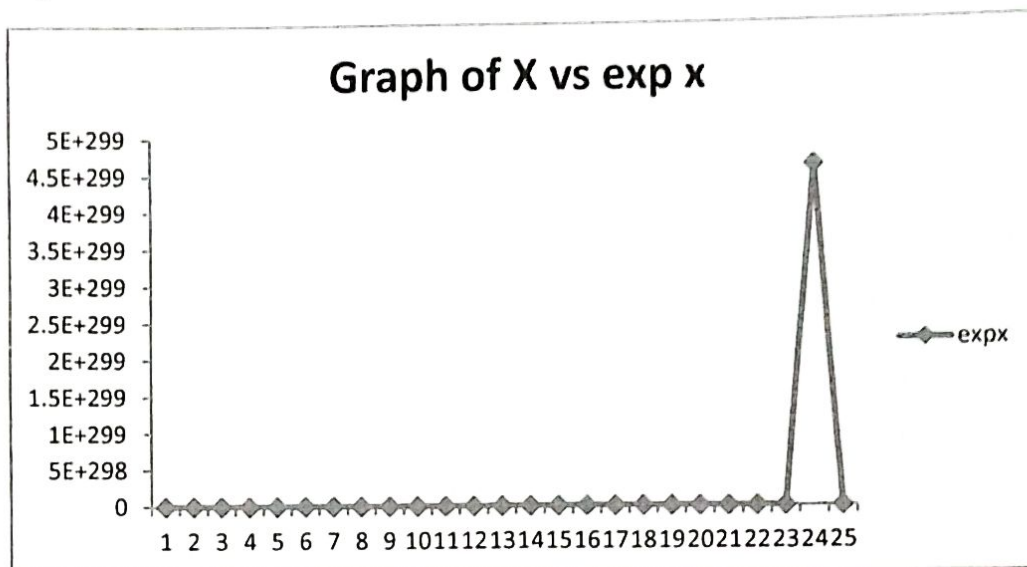
Graph II: X vs. Cube of X



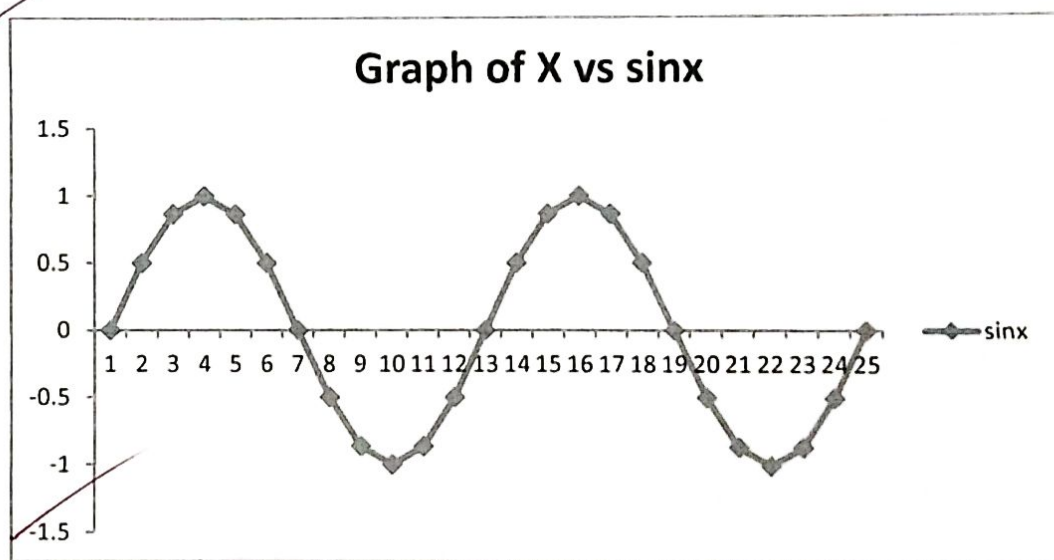
Graph III: X vs. Log X



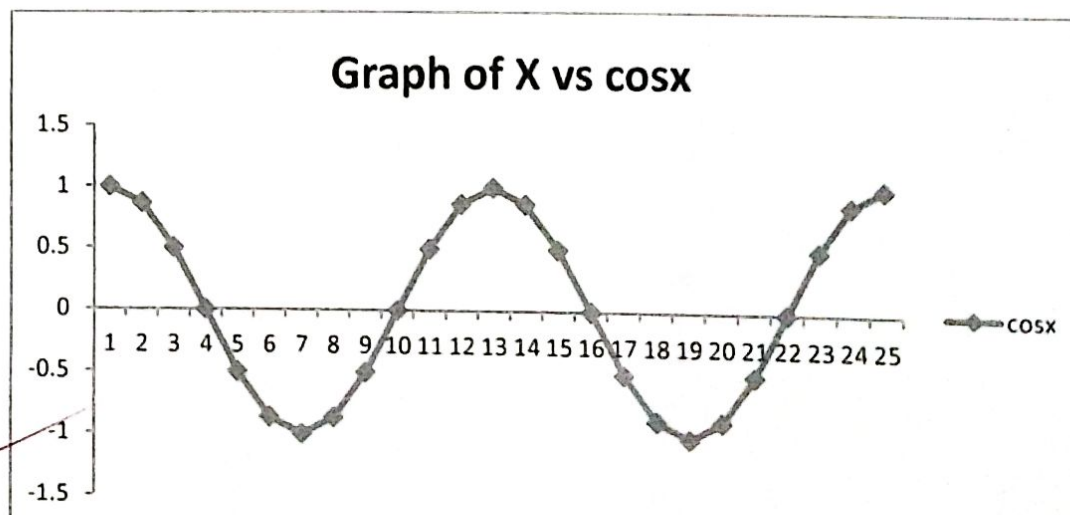
Graph IV: X vs. exp. Of X



Graph V: X vs. SinX.



Graph VI: X vs. CosX



Amunib
20/11/22



Name of the college: bada pati college

Subject: physics

Expt. No.

Date

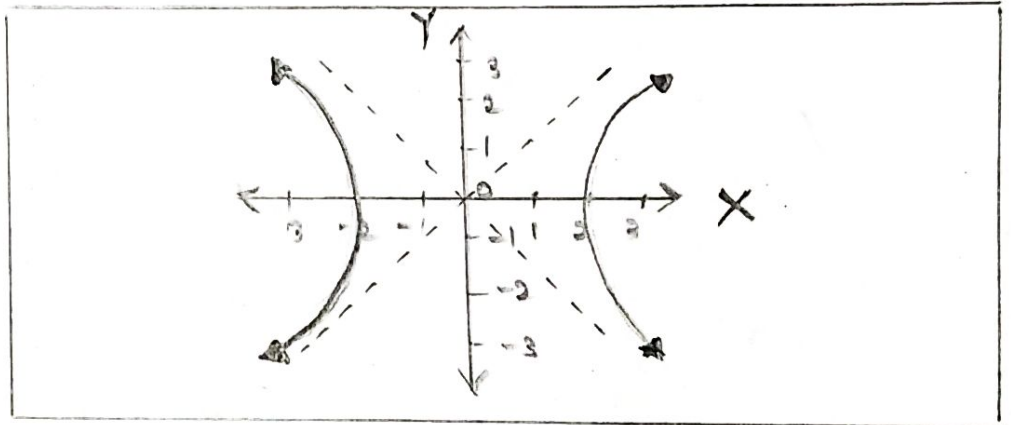
Name: Sarade A.R Class: SY Batch: Roll No.: 72

Title of Expt.: Eq of circle parabola and hyperbola

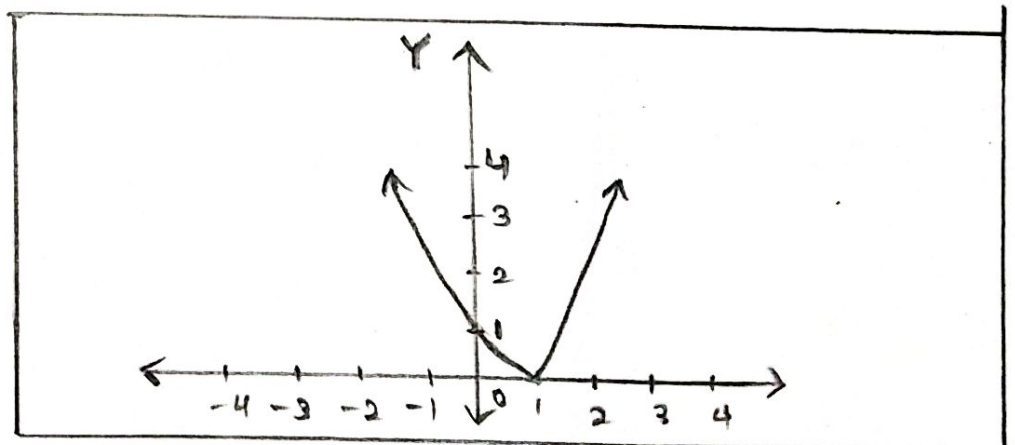
aim - plotting of trigonometric functions using graphics software.

1) Hyperbola

eq of hyperbola $\frac{y^2}{a^2} - \frac{x^2}{b^2} = 1$



2) parabola



Remarks

Signature

Rayat Shikshan Sanstha's
Dada Patil Mahavidyalaya, Karjat, Dist: Ahmednagar
Department of Physics

U.G. Section: S. Y. B. Sc. #Experiment: Plotting of Mathematical Functions using MS-Excel.
Academic Year: 2022-23

Name of the Student: Sorade M.P. Roll No.: 72 Date: / / 2022.

Chart 1: For Circle.

Sr. No.	Radius 'r'	Angle 'a'	Angle 'a' in Radian	Cosa	Sina	$X=r*\cos a$	$Y=r*\sin a$
1	5	0	0	0	0	5	0
2	5	30	0.523599	0.523599	0.5	4.330127	2.5
3	5	60	1.047198	1.047198	0.866025	2.5	4.330127
4	5	90	1.570796	1.570796	1	3.06E-16	5
5	5	120	2.094395	2.094395	0.866025	-2.5	4.330127
6	5	150	2.617994	2.617994	0.5	-4.33013	2.5
7	5	180	3.141593	3.141593	1.23E-16	-5	6.13E-16
8	5	210	3.665191	3.665191	-0.5	-4.33013	-2.5
9	5	240	4.18879	4.18879	-0.86603	-2.5	-4.33013
10	5	270	4.712389	4.712389	-1	-9.2E-16	-5
11	5	300	5.235988	5.235988	-0.86603	2.5	-4.33013
12	5	330	5.759587	5.759587	-0.5	4.330127	-2.5
13	5	360	6.283185	6.283185	-2.5E-16	5	-1.2E-15

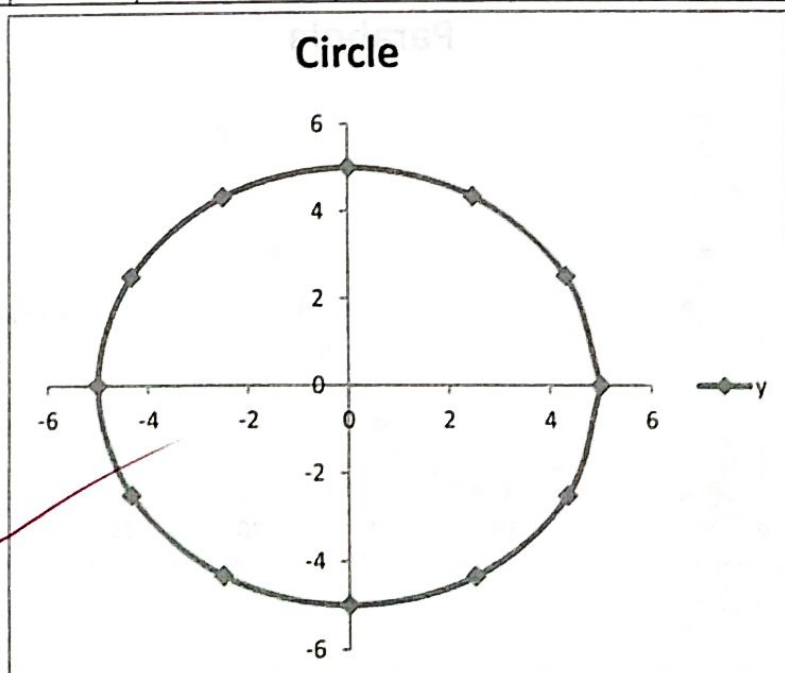


Chart 2: For Parabola

Sr. No	Value of a	Value of b	Value of c	Value of X	$Y = ax^2+bx+c$
1	5	5	5	-10	455
2	5	5	5	-9	365
3	5	5	5	-8	285
4	5	5	5	-7	215
5	5	5	5	-6	155
6	5	5	5	-5	105
7	5	5	5	-4	65
8	5	5	5	-3	35
9	5	5	5	-2	15
10	5	5	5	-1	5
11	5	5	5	0	5
12	5	5	5	1	15
13	5	5	5	2	35
14	5	5	5	3	65
15	5	5	5	4	105
16	5	5	5	5	155
17	5	5	5	6	215
18	5	5	5	7	285
19	5	5	5	8	365
20	5	5	5	9	455
21	5	5	5	10	555

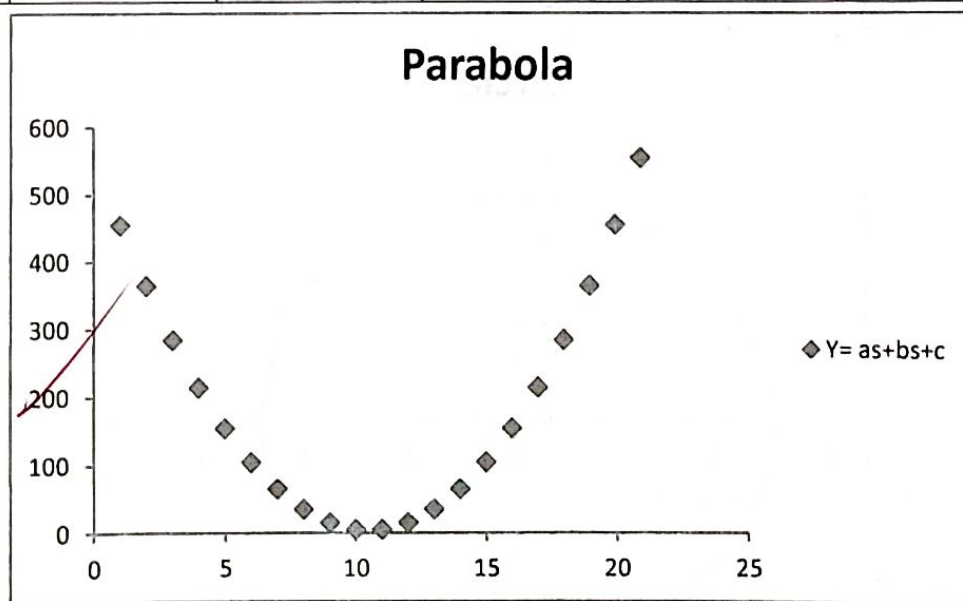
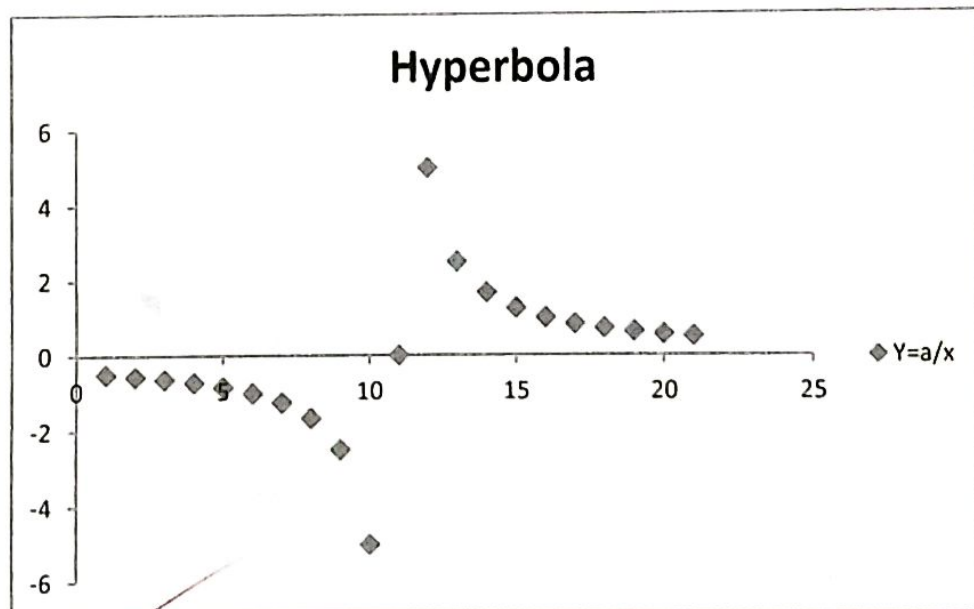


Chart 3: For Hyperbola

Sr. No.	Values of 'a'	Value of 'x'	$Y = a/x$
1	5	-10	-0.5
2	5	-9	-0.55556
3	5	-8	-0.625
4	5	-7	-0.71429
5	5	-6	-0.83333
6	5	-5	-1
7	5	-4	-1.25
8	5	-3	-1.66667
9	5	-2	-2.5
10	5	-1	-5
11	5	0	#DIV/0!
12	5	1	5
13	5	2	2.5
14	5	3	1.66667
15	5	4	1.25
16	5	5	1
17	5	6	0.83333
18	5	7	0.714286
19	5	8	0.625
20	5	9	0.555556
21	5	10	0.5



29/11/20



Rayat Shikshan Sanstha's

Dada Patil Mahavidyalaya, Karjat

Dist - Ahmednagar [MS]

NAAC Re-accredited 'A' Grade

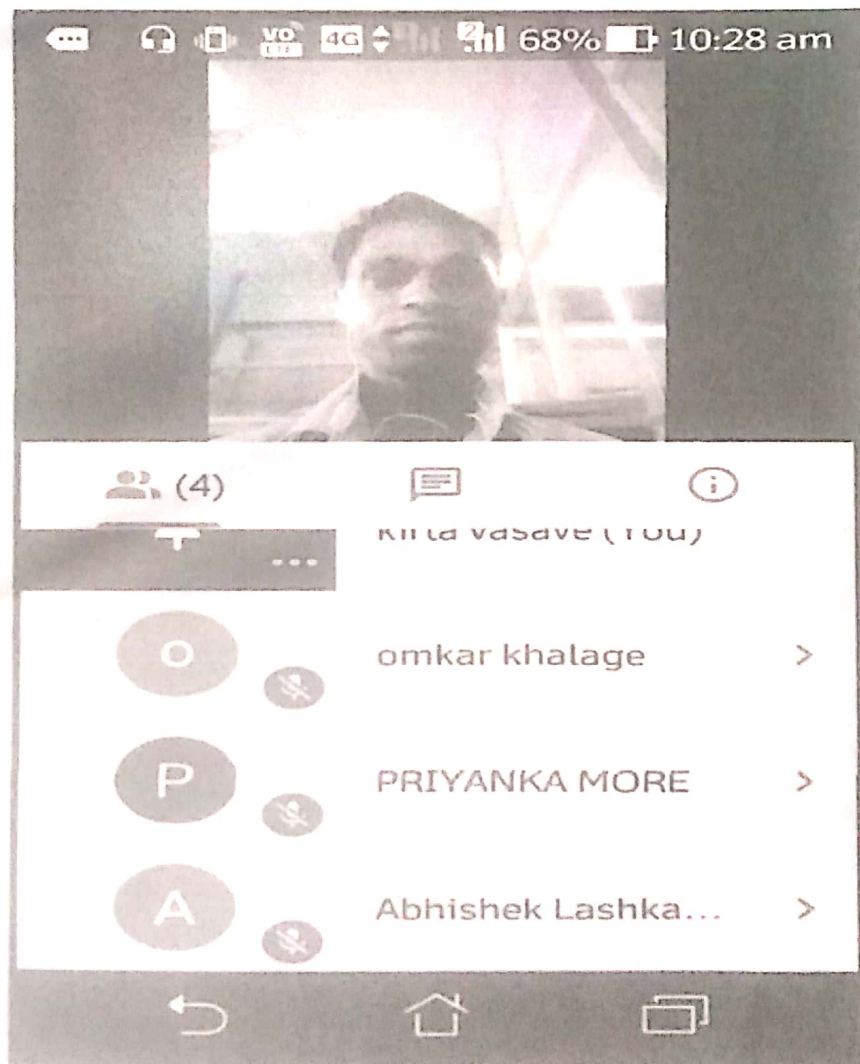
2020-21

Department of English

Use of ICT for Effective Teaching, Learning and Evaluation

Use of Google Meet for Online Lecture

19th November, 2021



Online Lecture on Google Meet





Rayat Shikshan Sanstha's

Dada Patil Mahavidyalaya, Karjat

Dist - Ahmednagar [MS]

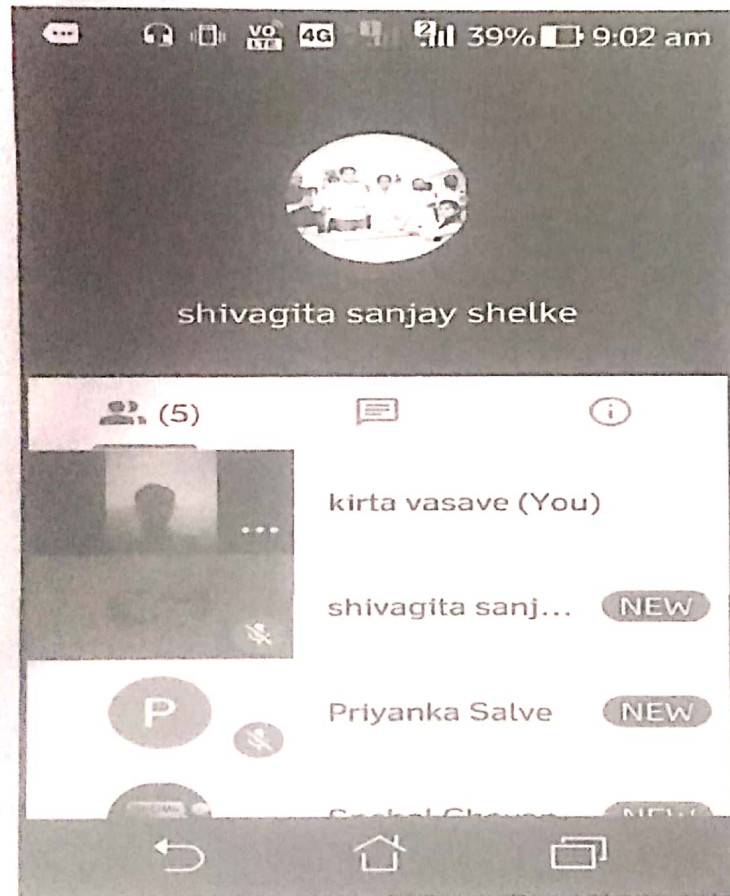
NAAC Re-accredited 'A' Grade

2020-21

Department of English

Use of ICT for Effective Teaching, Learning and Evaluation

Student's Use of Google Meet/ ICT





Rayat Shikshan Sansthas
Dada Patil Mahavidyalaya Karjat
(Dist.-Ahmednagar)

Date: 14.11.2022

Department of Physics
(UG Section)

-NOTICE-

All the S.Y.B.Sc Physics students are hereby informed that your Group discussions have been organized on the day of 19.11.2022 (Saturday) for the Subject of Physics.

It is a very essential activity for your academic endeavor. Therefore, be present and attend/ participate in the same.

The topic of Group Discussion, Venue, Date, and time is as follows:

Topic: *Why Physics is Important in Our Daily Life..... ?*

Date: 19.11.2022;

Time: 12.00 pm-01.00 pm

Venue: Physics Practical Laboratory

Subject In-charge:

1. Dr. M. S. Bhadane

2. Mr. B. S. Maharnavar



Head

Dr. S. G. Chabbe

Head

Dept. of Physics
Dada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar



Date: 19.11.2022

Department of Physics
(S.Y.B.Sc)

-Group Discussion-

(Topic: Why Physics is Important in Our Daily Life.....?)

-Attendance-

Sr. No.	Name	Signature
1)	Shinde Parnjali	Shinde
2)	Shendage Sayali	Shendage
3)	Bhosale Nikita	Bhosale
4)	Gulame Pratiksha	Gulame
5)	Gawade Sakshi	Ges
6)	Gaware Swapnali	Gaware
7)	Pote Vidya	Pote
8)	Kangude Nikita	Kangude
9)	Kangude Sushama	Kangude
10)	Dhobe Vaishnavi	Dhobe
11)	Rokode Jaya	Rokode
12)	Shinde Snehal	Shinde
13)	Khatake Vaishnavi	Khatake
14)	Paedeshi Neha	Paedeshi
15)	Supekar Sneha	Supekar
16)	Supekar Rutuja	Supekar
17)	Mandage Shubhangi	Mandage
18)	Shaikh Rajina	Shaikh
19)	Pawar Pratiksha	Pawar

20)	Bhise Gaukavi	Bhise
21)	Kawade Sneha	Kawade
22)	Shinde Pratiksha	Shinde
23)	Rugade Vaishnavi	Rugade
24)	Tanpure Neha	Tanpure
25)	Kashid Pooja	Pooja
26)	Sanmali Renuka	Sanmali
27)	Khedkar Rutuja D	Khedkar
28)	Gaikwad Madhuri	Gaikwad
29)	Shipkule Chaitali	Shipkule
30)	Bamane Shubhangi	Bamane
31)	Bhosale Pooja	Bhosale
32)	Bhavsar Sakshi	Bhavsar
33)	Mandage Sandip	Mandage
34)	Sudrik Vishal	Sudrik
35)	Modhale Sanket	Modhale
36)	Shinde Shubham	Shinde
37)	Kangude Ajay	Kangude
38)	Anbhule Saurabh	Anbhule
39)	Mandage Abhijeet	Mandage
40)	Sudrik Rohan	Sudrik

Activity Group discussion

Group No. 7

M	T	W	T	F	S	S
Page No.:						YOUVA
Date:						

- Why physics is important in daily life.

Shinde Pratiksha Pandurang

Kawade Sneha Ankush

Ragade Vaishnavi Navnath

Tampure Neha Sanjivan

Supekar Rutuja Gorakh

Shinde

Kawade

Ragade

Tampure

Supekar R.G.

- If physics is absent in our life then we can't launch rockets, satellites & we can't get informed about moon & Mars. Because of physics we know living things exist on ~~earth~~ Mars & we know about water is present on Moon.
- We know about our galaxy, Black hole in space, gravity in space.
- If physics is not used then we totally unknown from universe, there physics must use to study of universe.
- ~~See~~ living things are flow on dead sea it is totally physics.
- Because of satellite we use internet & we will able to see T.V, Computer & many softwares.
- Alarm - It acts when we want that's why we are not late in daily routine.
- Camera - We click the moment due to camera but it's made by using nanotechnology.
- Thermas - Thermas is the application of thermodynamics which can not be exchange heat.
- Gravity - Due to gravitational force we stable on earth & we easily capable to stand.

Activity - Group Discussion

M T W T F S S						
Page No.:				YOUVA		
Date:						

Topic :- Why physics is important in our Daily life

Group :- (2)

- 1) Bhosale Nikita Arun
- 2) Shinde pranjali Machindra
- 3) Shendage Sayali Dadaso
- 4) Kashid pooja Umesh

Bhosale

Shinde

Shendage

Pooja. U. K.

Points :-

- 1) Steam Iron - Need as to press the cloth.
- 2) Laser - It is used in Medical Field.
- 3) Automobile - Works on the basis of thermodynamics.
- 4) Radar - Works on the principle of reflection & propagation.
- 5) Headphones - Used to listen the music.
- 6) Walking - When you get ready for school/office walking in morning time you can easily walk is just of physics.
- 7) Camera lense - It is used in to capture the photos.
- 8) Heter = Heater - It is used in water heating.
- 9) Refrigerator - It is used to keep fresh vegetables.
- 10) Alarm clock - Physics gets involvs in your daily life after you wake up in morning.
- 11) cooker - It is used to cook the food.
- 12) Sound - It is used in speaker.

Activity - Discussion.

Group-3

Page No.

Date

youva

* Why Physics is important in daily life

Group-3

- ① Gauzavi Kantilal Bhise Arshise
- ② Shaikh Rojina Mustak Shaikh R.M
- ③ Mandage Shubhangi Shubangi
- ④ Bhavne Sakshi Gajendra Bhavne
- ⑤ Pawne Pratiksha Subhash Pawne

① Compas - Magnet
It use for direction indicator

② Spect - lens
It is use to see
- convex lens } optics
- Concave lens }

③ Newton's law -
Human's being stand for the gravitational force

④ Thermometer
They are used for measure a temperature.

⑤ Tethscope -
To measure heart beat.

⑥ Tournch

⑦ Smartwatch

⑧ Lock

⑨ ~~Exray~~ machine Xray machine

⑩ Printer

Activity - (Group Discussion)

Why physics is important in our daily life.

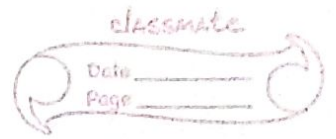
Group No - 4

- 1) Pote vidya Ghanshyam.
- 2) Rokade Jaya Dnyandeo.
- 3) Gulme pratiksha Rajendra.
- 4) Pardeshi Neha Ramesh singh
- 5) Khatke Vaishnavi Sharad.

points -

- 1) ~~Walking~~
- 1) Gravity - It used in daily activity playing, walking,
- 2) X-ray machine - It capture the ^{inside} body part,
- 3) space technology - It used to capture earth photo's
- 4) Invetor - It store ~~to~~ electricity & used to provide light.
- 5) Xerox machine - Use as a printer.
- 6) Computer - It used to data store.
- 7) Solar heater - It used as a making hot water.
- 8) prism - Reflection of light.

Activity - Group discussion.



Group No : 10.

Topic - Why physics is important in our daily life?

• Group members -

- ① Shahane Jayesh
- ② Parekar Rajendra.
- ③ Waghmare Pramod
- ④ Modhale Sanket.

Points -

- i) X-Ray - It is very important in Identify Damaged body parts. It show Accurate image of Inert parts.
- ii) Telescope - It is used to see long distance planets. In it used high quality Lens.
- iii) Rocket - It is used to send Artificial satellite from earth to space.
In it uranium is used as fuel.
- iv) Artificial Intelligence -
 - There are to identify criminal activity.
 - It is used in CCTV cameras.
- v) Nuclear weapons -
 - It is used to destroy our enemies.
e.g. Nuclear Bombs
- vi) Rainbow - Reflection of light
it form 7 colours.

Activity - Group Discussions.

Q. Why physics in daily life?

Name

Sign

- | | | |
|----|---------------------------|-----------------|
| 1) | Mandage Abhijeet Lata | <u>Abhijeet</u> |
| 2) | Anbhule Saurabh Balasaheb | <u>Anbhule</u> |
| 3) | Kangade Aijay Sunil | <u>Aijay</u> |
| 4) | Sudrik Rohan Dadasaheb | <u>Sudrik</u> |

1) Solar System -

In Solar ^{system} Sun light enters Solar panel and Solar panel convert light energy into electrical energy.

2) Voltmeter -

To measure the current and Electric material check on & off.

3) Diesel Engine - it is the Four Stroke Engine, it use in four wheel Car's To Improve the speed of Car.

4) Smart watch - in Smart watch digital coding system is used.

5) Radio - Semiconductor are used in Semi-Conductor.

6) Nuclear energy - providing the electric current in daily life.

7) Weight base - Computer. in Computer Binary system used.

Activity - Group Discussion

Date - 19/11/2022



Group No - 9

Topic - Why Physics is important in your daily life

Group - 9

- ① Shubham Mahadev Shinde
- ② Sandip Anil Mandage
- ③ Vishal Ajinath Sudrik
- ④ Aniket Suresh Sautade
- ⑤ Omkar Sarjerao Thorat

- ① Solar energy is used in daily life for boiling water, cooking food, produce electricity and electric motor.
- ② Magnetic energy used for produce sound
- ③ Voltmeter is used for measure current Voltage
- ④ electric motor is used in agriculture field succession of water
- ⑤ Laser is used for treatment in medical field and Defence
- ⑥ wind energy is used to produce electricity.
- ⑦ Automobile technology is working on the base of Thermodynamics physics.
- ⑧ Nuclear energy is used to produce nuclear bomb.

7

Activity - Group Discussion

DATE			
PAGE NO.			

Why physics is important in daily life?

- 1) Shipkule Chaitali Balu.
- 2) Gaikwad madhuri vittal.
- 3) Khedkar Rutuja Dattatray
- 4) Sonmali Renuka Devidas

- Ironing that the wrinless out of the shirt.
- Freshair cooker. use of food material.
- Motor (Machine)
- Mirror - reverse the direction of the image.
- Auto - automatically switch of 4 on.
- electronic wire - the ~~bears~~ ^{bear} mechanical loads
- bulb - light.
- ~~fr~~ Freege - cool
- gijar - ~~water~~ is / heater - पाणी गरम करवासाठी.
- x-ray - nuclear radiation
- robot - automaticall work.
- cutting, ~~watching~~, cutting the food material.
- watch - set the time.
- ~~to~~ magnet
- calci - calculated.
- walking, rainbow, refraction of light

Activity - group discussion

Title : Why physics is important in our daily life

(Group) - G

Name of student.

1) Bhosale pooja Gajendra

2) Bamane Shubhangi Bharat

3) Shinde snehal Ajinath

4) Supekar sneha santosh.

points :

* car seat-belt

when you tighten your car seat belt, it works on the concept of inertia.

* Earphones

the concept of sound wave

* Alarm clock

The buzzing sound of an alarm clock help you wake up in the morning.

* dryer

wet clothes are dried with the hot air of the dryer

* Iron

we get supply the current to iron then hot air produce & it is used for ironing flat the wrinkles out of a shirt.

* cell phone

It is digital instrument, touches pad.

* heater

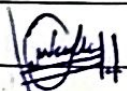

cold water is converted
we get supply current, hot water is produced.

Activity : Group Discussion.

Date _____
Page _____

Why physics is Important in Daily Life.

Group :- 05

- | | |
|-----------------------------|---|
| 1) Dhebe Vaishnavi Jaydeo |  |
| 2) Gaware Swapnali Magar | Gaware-  |
| 3) Kangude Sushama Giridhar | Kangude.S.G |
| 4) Kangude Nikita Gangaram | Kangude-N.G |
| 5) Gawade Sakshi Bhausaheb | Ges |



Points :-

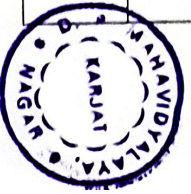
- 1) Induction Cookers are the application of physics as it works on Faraday's Law. That device produces heat by inducing a current in the cooking vessel. It is useful in day today life cause it is portable and can be used everywhere we want.
- 2) Alarm Clock is the application based on physics. Whenever Alarm clock rings the air molecule neighbour to clock get vibrate and also make neighbouring molecule vibrate too, and that wave of energy that travel out from the clock. It is applicable to wake up everyone early morning.
- 3) Ball pen point is the concept of gravity. When your pen moves across the paper the ball turns and gravity forces the ink down onto

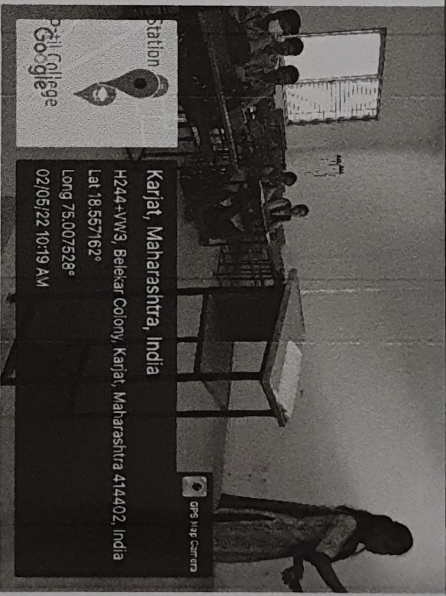
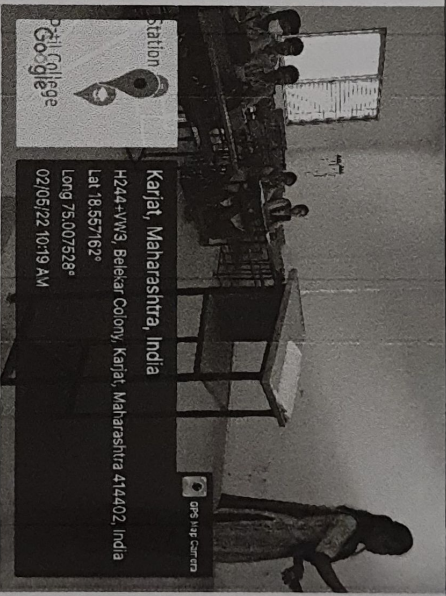
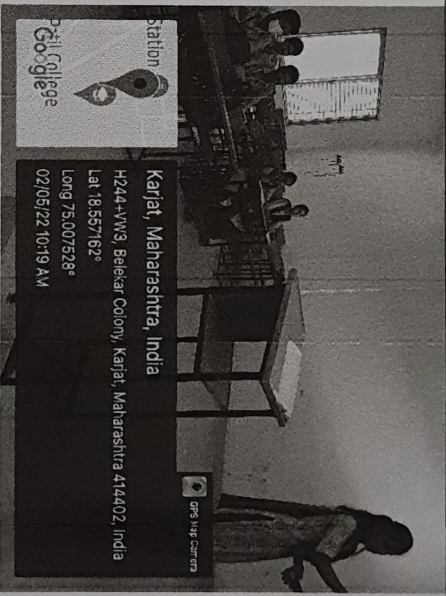
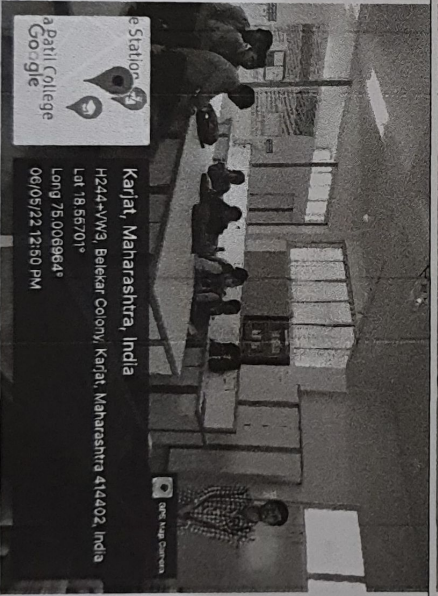
Date: 29/04/2022

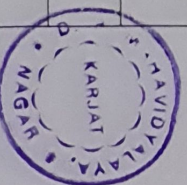
Department of Physics
(PG Section)

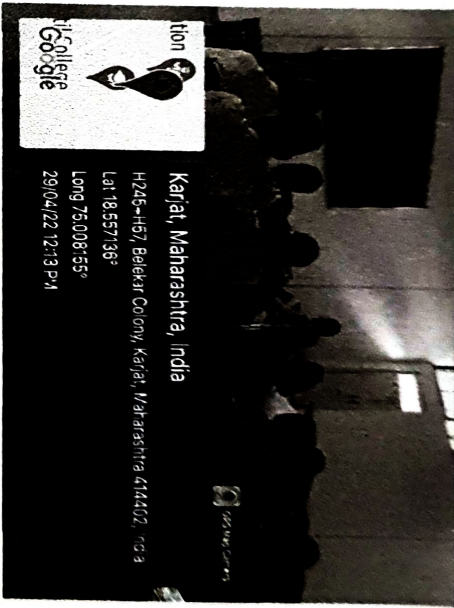
-Seminar Topic, Date, and Signature-

Sr. No.	Student Name	Physics of Thin Film -Seminar Topic-	Photo	Date	Signature
1	Bankar Vrushali D.	Electrical Properties: Source of Resistivity in Metallic conductors	 <p>कार्जत, महाराष्ट्र, India +235+V7W गोंयचे तें, Karjat, Maharashtra 414402, India Lat 18.554696° Long 75.008236° 06/05/22 12:31 PM</p>	06.05.2022	<u>Puhalu'</u>
2	Bhosale Madhuri R.	Electrical Properties: TCR and its effects.	 <p>कार्जत, महाराष्ट्र, India H244+VW3 Beller College, Karjat, Maharashtra 414402, India Lat 18.557012° Long 75.006261° 30/04/22 00:11 PM</p>	30.04.2022	<u>Bhosale MR</u>
3	Bhosale Rutuja A.	Electrical Properties: Hall Effect & Magneto-resistance in thin films	<p>Absent</p>	Absent	Absent



5	Galande Sima P.	Optical properties: Absorption and transmission.	Oral		19.05.2022	<u>Galande</u>
6	Gawade Prashant	Electrical Properties: Influence of thickness on the resistivity of TF	Oral		18.05.2022	<u>Shubir</u>
7	Hoshing Prasad R.	Mechanical properties: stress measurement by using optical method	Absent		Absent	Absent
8	Hulage Sonali V.	Measurement of Thickness: Tolansky technique	Absent		Absent	Absent
9	Karad Kiran K.	Electrical Properties: Hall Eff. & Magneto-resistance in TF	Absent		Absent	Absent
10	Karande Megha B.	Applications of Thin Films: Junction devices Solar cells			02.05.2022	<u>Karande M.B.</u>
11	Kasare Ravindra	Mechanical properties: Adhesion and its measurement with mechanical and nucleation methods			06.05.2022	<u>Kasare R.V.</u>
12	Kasare Sudhir C.	Optical properties: Absorption and transmission.	Oral		18.05.2022	<u>Kasare</u>
13	Kolapkar Megha	Applications of Thin Films: Optical coating	Absent		Absent	—
14	Kshirsagar Pooja	Applications of Thin Films: Thin film sensors (gas)	Absent		Absent	Absent



15	Kumbhar Sagar L.	Applications of Thin Films: Thin film sensors (humidity)	Oral	18.05.2022	Kumbhar S.
16	Londhe Anita A.	Electrical Properties: Hall Effect & Magneto-resistance in thin films			@londhe
17	Nalawade Rutuja S.	Electrical Properties: TCR and its effects.	Oral	19.05.2022	Rutuja
18	Pawar Rupali J.	Electrical Properties: Influence of thickness on the resistivity of TF	Oral	19.05.2022	Rupali
19	Raut Manda B.	Optical properties: Absorption and transmission.	Absent	Absent	Absent
20	Saste Rushikesh B.	Mechanical properties: stress measurement by using optical method	Oral	19.05.2022	Saste R.B.
21	Shendge Avinash	Applications of Thin Films: Thin film sensors (gas)	Absent	Absent	Absent
22	Shinde Adesh M.	Measurement of Thickness: Tolansky technique	Oral Absent	Absent	—
23	Vidya Ravsaheb K.	Electrical Properties: Source of Resistivity in Metallic conductors	Absent	Absent	Absent

Subject In-Charge

(Dr. Ghudane N. S.)



HOD

Head

Dept. of Physics

Dada Patil Mahavidyalaya

Karjat, Dist. Ahmednagar

Department of Physics
(PG Section)

-NOTICE-

All M.Sc-2 students are hereby informed that please refer to the below table for your seminar and assignment topics for the Subject of *Physics of Thin Film*. It should be noted that the date of the seminar and the given topic is final and no changes will be made in it.

Sr. No.	Student Name	Seminar Topic	Date
1	Bankar Vrushali D.	Electrical Properties: Source of Resistivity in Metallic conductors	25.04.2022
2	Bhosale Madhuri R.	Electrical Properties: TCR and its effects.	25.04.2022
3	Bhosale Rutuja A.	Electrical Properties: Hall Effect & Magneto-resistance in thin films	25.04.2022
4	Borade Janabai I.	Electrical Properties: TCR and its effects.	25.04.2022
5	Galande Sima P.	Optical properties: Absorption and transmission.	26.04.2022
6	Gawade Prashant	Electrical Properties: Influence of thickness on the resistivity of TF	26.04.2022
7	Hoshing Prasad R.	Mechanical properties: stress measurement by using optical method	26.04.2022
8	Hulage Sonali V.	Measurement of Thickness: Tolansky technique	26.04.2022
9	Karad Kiran K.	Electrical Properties: Hall Eff. & Magneto-resistance in TF	27.04.2022
10	Karande Megha B.	Applications of Thin Films: Junction devices Solar cells	27.04.2022
11	Kasare Ravindra	Mechanical properties: Adhesion and its measurement with mechanical and nucleation methods	27.04.2022
12	Kasare Sudhir C.	Optical properties: Absorption and transmission.	27.04.2022

13	Kolapkar Megha	Applications of Thin Films: Optical coating	28.04.2022
14	Kshirsagar Pooja	Applications of Thin Films: Thin film sensors (gas)	28.04.2022
15	Kumbhar Sagar L.	Applications of Thin Films: Thin film sensors (humidity)	28.04.2022
16	Londhe Anita A.	Electrical Properties: Hall Effect & Magneto-resistance in thin films	28.04.2022
17	Nalawade Rutuja S.	Electrical Properties: TCR and its effects.	29.04.2022
18	Pawar Rupali J.	Electrical Properties: Influence of thickness on the resistivity of TF	29.04.2022
19	Raut Manda B.	Optical properties: Absorption and transmission.	29.04.2022
20	Saste Rushikesh B.	Mechanical properties: stress measurement by using optical method	29.04.2022
21	Shendge Avinash	Applications of Thin Films: Thin film sensors (gas)	30.04.2022
22	Shinde Adesh M.	Measurement of Thickness: Tolansky technique	30.04.2022
23	Vidya Ravsaheb K.	Electrical Properties: Source of Resistivity in Metallic conductors	30.04.2022

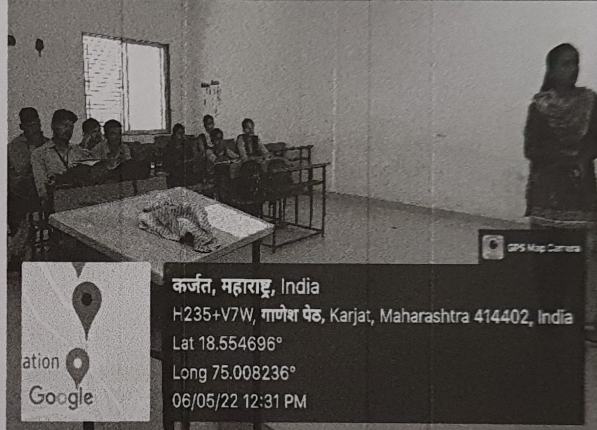
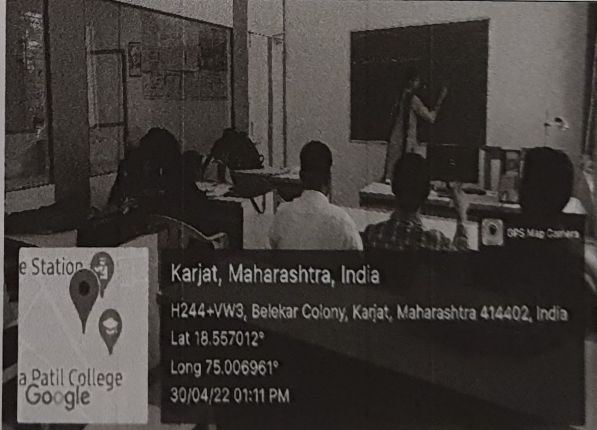
[Signature]
25/03/22
Subject In-Charge

HoD Head
Dept. of Physics
Ddaa Patil Mahavidyalaya
Karjat, Dist. Ahmednagar

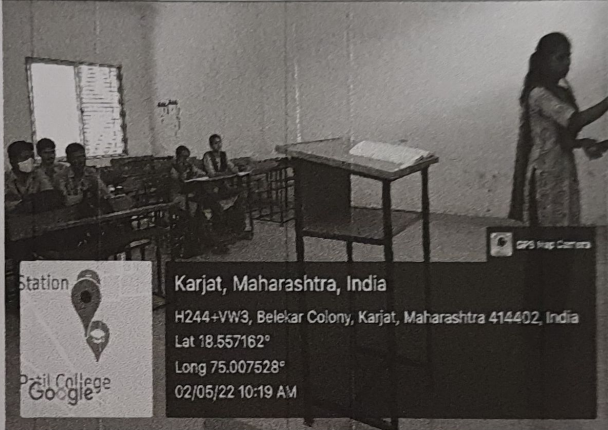
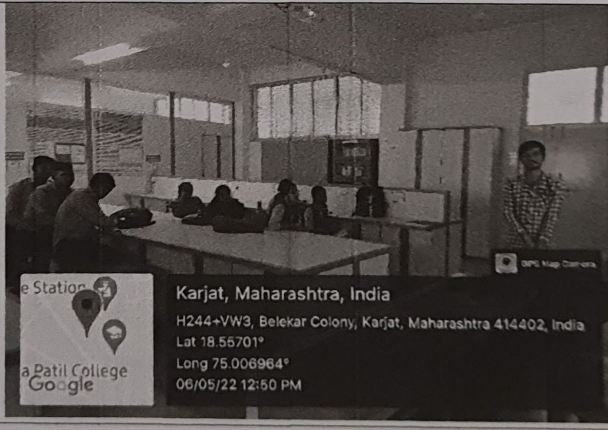
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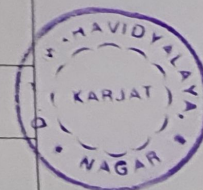
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(PG Section)

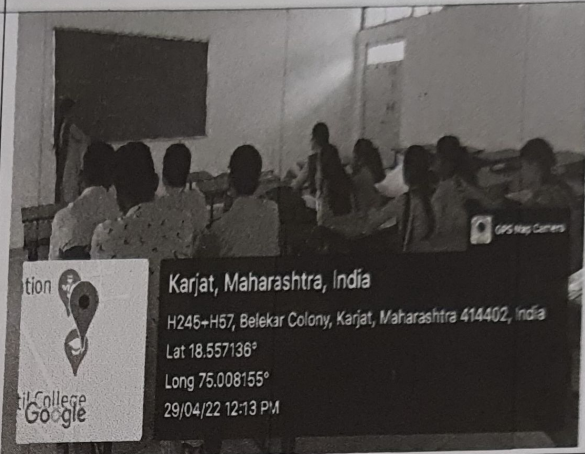
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2	Bhosale Madhuri R.	Electrical Properties: TCR and its effects.	 Karjat, Maharashtra, India H244+VW3, Belekar Colony, Karjat, Maharashtra 414402, India Lat 18.557012° Long 75.006961° 30/04/22 01:11 PM	30.04.2022	<u>Bhoselemp</u>
3	Bhosale Rutuja A.	Electrical Properties: Hall Effect & Magneto-resistance in thin films	Absent	Absent	Absent



5	Galande Sima P.	Optical properties: Absorption and transmission.	Oral	19.05.2022	<u>Galande</u>
6	Gawade Prashant	Electrical Properties: Influence of thickness on the resistivity of TF	Oral	18.05.2022	<u>Gawade</u>
7	Hoshing Prasad R.	Mechanical properties: stress measurement by using optical method	Absent	Absent	Absent
8	Hulage Sonali V.	Measurement of Thickness: Tolansky technique	Absent	Absent	Absent
9	Karad Kiran K.	Electrical Properties: Hall Eff. & Magneto-resistance in TF	Absent	Absent	Absent
10	Karande Megha B.	Applications of Thin Films: Junction devices Solar cells		02.05.2022	<u>Karande M.B.</u>
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15	Kumbhar Sagar L.	Applications of Thin Films: Thin film sensors (humidity)	Oral	18.05.2022	<i>Kumbhar S.</i>
16	Londhe Anita A.	Electrical Properties: Hall Effect & Magneto-resistance in thin films	 <p>Karjat, Maharashtra, India H245+H67, Belekar Colony, Karjat, Maharashtra 414402, India Lat 18.557136° Long 75.008155° 29/04/22 12:13 PM</p>		<i>@Londhe</i>
17	Nalawade Rutuja S.	Electrical Properties: TCR and its effects.	Oral	19.05.2022	<i>Rutuja</i>
18	Pawar Rupali J.	Electrical Properties: Influence of thickness on the resistivity of TF	Oral	19.05.2022	<i>Rupali</i>
19	Raut Manda B.	Optical properties: Absorption and transmission.	Absent	Absent	Absent
20	Saste Rushikesh B.	Mechanical properties: stress measurement by using optical method	Oral	19.05.2022	<i>Saste R.B</i>
21	Shendge Avinash	Applications of Thin Films: Thin film sensors (gas)	Absent	Absent	Absent
22	Shinde Adesh M.	Measurement of Thickness: Tolansky technique	Oral Absent	Absent	—
23	Vidya Ravsaheb K.	Electrical Properties: Source of Resistivity in Metallic conductors	Absent	Absent	Absent

(Dr. Bhudane M. S.)
Subject In-Charge



HoD
Head
Dept. of Physics
Bada Patil Mahavidyalaya
Karjat, Dist. Ahmednagar



Rayat Shikshan Sanstha's

Dada Patil Mahavidyalaya, Karjat

Dist.- Ahmednagar

Department of English

Academic Year- 2020-21

Student-Centric Teaching & Learning Methods

Students' Seminars


Notice


Date: 04 / 03 /2021

All the students of T.Y.B.A. are hereby informed that the **Students' Seminars** activity of the students will be organized by the department on ~~Tuesday~~ **Wednesday**, 10th March, 2021. All students should actively participate in the activity.

Time: 11.30 a.m.

Venue: Hall No.-19


Subject Teacher
(Mr. Vasave K.O.)


For Head
Department of English
Dada Patil Mahavidyalaya, Karjat



Rayat Shikshan Sanstha's

Dada Patil Mahavidyalaya, Karjat

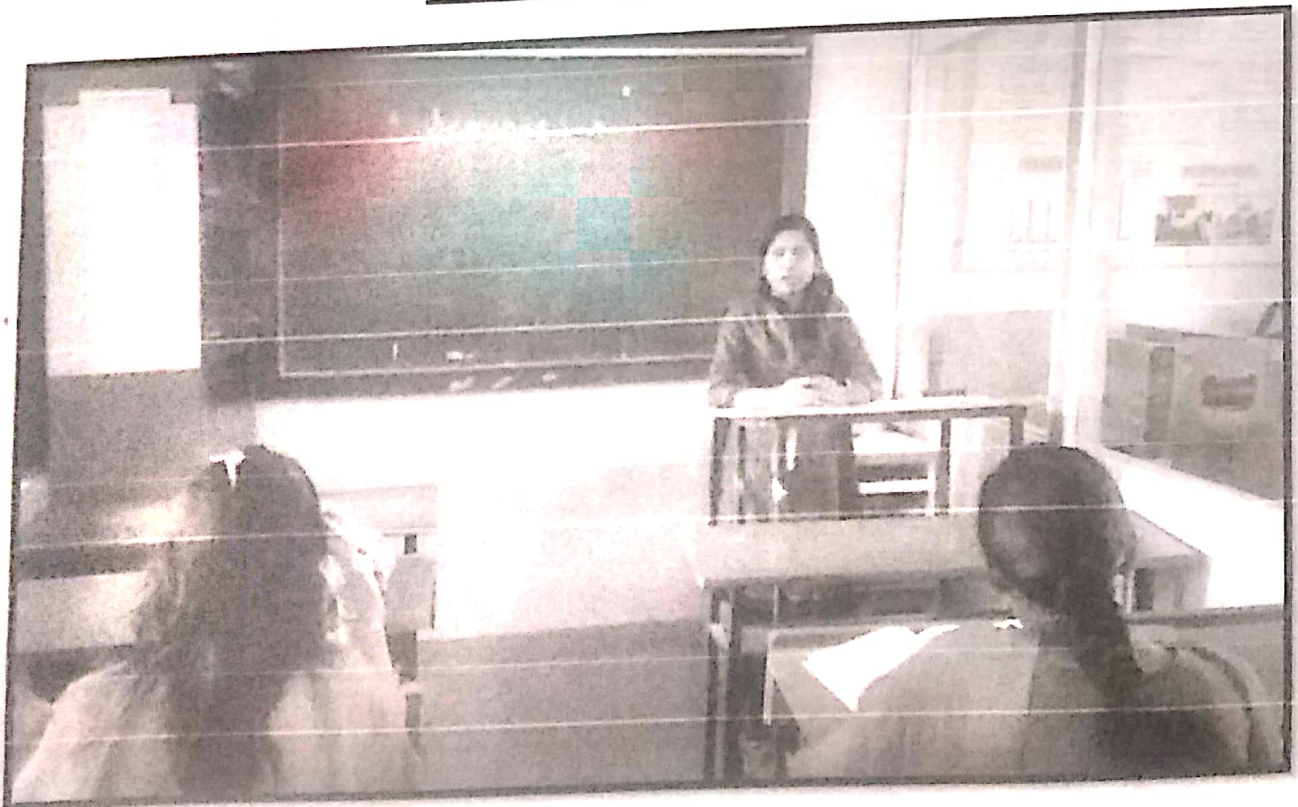
Dist.- Ahmednagar [MS]

NAAC Re-accredited 'A' Grade
2020-21

Department of English

**Student Centric Teaching and Learning
Methods**

Students' Seminars



Students gave seminars in classroom based on the syllabus.



Rayat Shikshan Sanstha's

Dada Patil Mahavidyalaya, Karjat

Dist.- Ahmednagar [MS]

NAAC Re-accredited 'A' Grade

2020-21

Department of English

**Student Centric Teaching and Learning
Methods**

Students' Seminars



Students gave seminars in classroom based on the syllabus.

15/10/2012

Rayat Shikshan Sanstha's
DADA PATIL MAHAVIDYALAYA, KARJAT
Tal. Karjat, Dist. Ahmednagar.

ATTENDANCE SHEET OF ICT LECTURE

Name of the Teacher : <u>Vasave K.O.</u>			
Designation	Assit prof	Subject	English
Class Taught	TYBA	Paper	54 English
Time	9:15-10:05	Date	10/10/2012
Points Covered Under topic :			

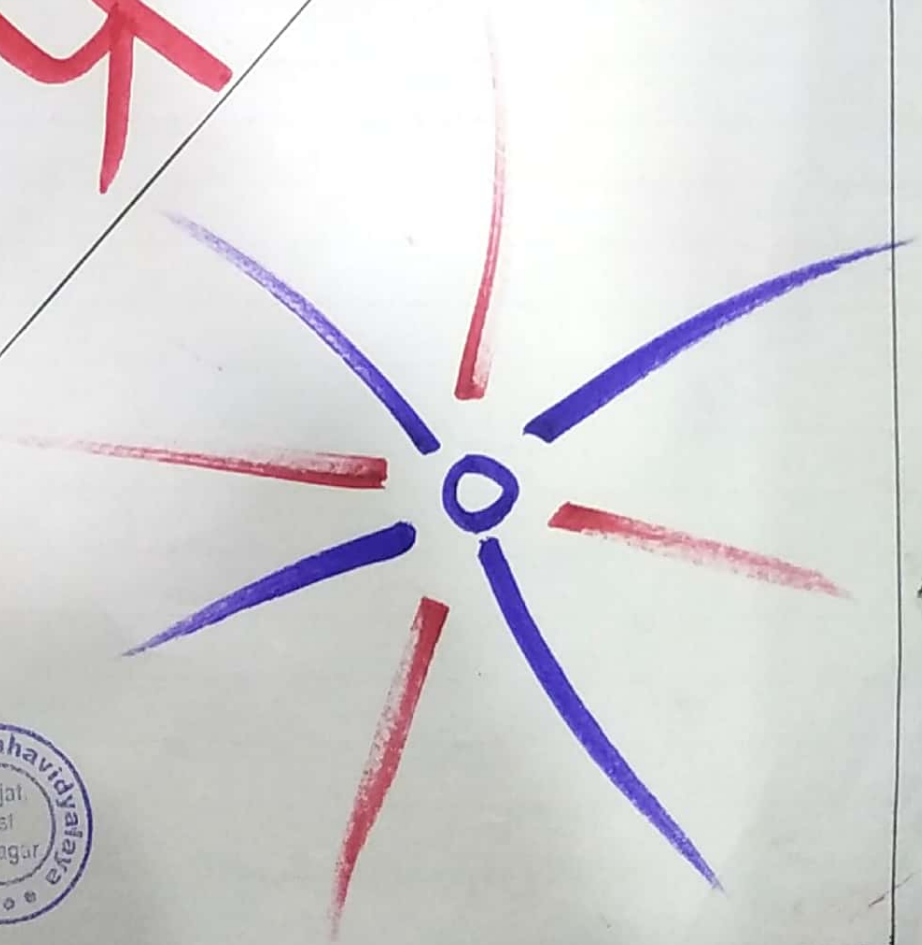
Literary Term

Student's Seminars
on

English GB.

Sr. No.	Roll No.	Name of the Students	Signature
1		Tandale Sayali popat	<u>Tandale</u>
2		More priyanka Pandurang	<u>Priyanka</u>
3		Gangawane Bhagyashree Ramesh	<u>Bhagyashree</u>
4		Gangawane Kajal Sanjay	<u>Kajal</u>
5		Pakhale Pallavi Rajesh	<u>Pallavi</u>
6		Borade Pratiksha Ramech	<u>Borade</u>
7		Pote poornima Mohan	<u>P.M. Pote</u>
8		Londhe Prapali Vitthal	<u>P.V. Londhe</u>
9		Kale Abhishek Ishwar	<u>Abhishek</u>
10		Khose Chandrakant Ramdas	<u>Chandrakant</u>
11		Shodad Vikas Anil	<u>Vikas</u>
12		Kharbajekar Kar Babasaheb	<u>Kharbajekar</u>

पुस्तक





दादा
पारोस
महाविद्यालय
करा



me : Bagal Malachand Bandu
Subject : Environmental studies
Year : 2021-22 Semester : IV
Class : SYBA Roll No. : 41
Academic Year : 2021-22
Professor-in-Charge : Asawale v.s.
Department : Environment Head of the Department : Environment
University : Savitribai Phule Pune University

CERTIFICATE

Class : SYBA

Year : 2021-22

This is to certify that the work entered in this journal is the work of
Kumar / Kumari Bagal Malachand Bandu

who has worked for the 1st / 2nd / both Term(s) of the year
in the college laboratory.

Asawale v.s.
Professor-in-charge



Asawale v.s.
Head of the Department

Date : 10/02/2022

प्रशानिर्देश

शैक्षणिक वर्ष 2021-22 या

कालावधीत भी Environment studies या विषयाचा 'वन्यजीव' प्रकल्प आणि 'वन्यजीव संवर्धनाबद्दल माहिती' हा प्रकल्प तयार करत असताना मला या विषयाचे संबंधित शिक्षक श्री. हि. एस. अस्वले सर यांनी मला योग्य ते मार्गदर्शन केले त्यामुळे मी त्यांचे मनापासून आभार मानतो. तसेच हा प्रकल्प तयार करताना मला माझ्या मित्र मैत्रिणी ही तसेच नातेवाईकांनी ही खुप मदत केली त्यामुळे या सर्वांचे मनापासून आभार मानतो.

हा प्रकल्प तयार करत असताना मला अनेक अशा अडचणी आल्या परंतु मला या सर्वांनी खुप अशी मदत केली. त्यामुळे मी त्यांचे शतशः ऋणी आहे. हा प्रकल्प तयार करताना मला अनेक अनुभव आले. या अनुभवातून काढितरी चांगले व सुंदर कलायची संधी मला मिळाली म्हणून मी विषय शिक्षकांचा ऋणी आहे.



अनुक्रमिका

अ.क्र	घटक	दिनांक	गुण	सही
१.	विषयाचे महत्व			
२.	प्रकल्पाची उद्दिष्टे			
३.	प्रकल्प कार्यपद्धती			
४.	व्यक्तीवांना अस्मरेले ढोके			
५.	व्यक्तीवांचे संवर्धन व अणाय			
६.	निरीक्षण			
७.	निष्कर्ष			
८.	संदर्भ			



प्रकल्प प्रस्तावना

विकासाच्या शतकातील बेसुमार वन्य जीवांच्या लोकसंख्येचा वन्य जीवांचा अस्तित्वावर मोठ्या प्रमाणावर परिणाम झाला आहे. मानवाची वाढत जाणारी लालसा आणि हाव हे वन्य जीवांची संख्या घटवण्याचे एक मुख्य कारण आहे. गेल्या काही वर्षांत झालेली वन्य जीवांच्या झालेल्या बेसुमार हत्या, प्राण्यांच्या हत्येवर बंदी असताना सुद्धा आजही मोठ्या संस्तन प्राण्यांचीही पारधचोर हत्या करीत आहेत प्राण्यांची हत्या करून त्यातून मिळणाऱ्या वस्तूला जागतिक बाजारपेठेत भरमसाठ किंमत मिळते. परंतु यामुळे निसर्गाचा समतोल मोठ्या प्रमाणावर ढासळत चालला आहे. आपल्या पर्यावरणात अनेक अन्नसाखळ्या असतात. पर्यावरणातील या साखळ्यांमुळे या सृष्टीतील प्रत्येक सजीवाला अन्न मिळते आणि तो आपला जीवन काळ पूर्ण करतो. जर या अन्नसाखळी मधील एक जरी दुवा नष्ट झाला तरीही साऱ्या पर्यावरणाचा समतोल बिघडून जाईल.

आज या प्रकल्पाच्या माध्यमातून वन्यजीवांना असलेले धोके, तसेच धोक्यात असलेल्या वन्य जीवांच्या प्रजातींचे संरक्षण करण्यासाठी करण्यात येणाऱ्या उपाय योजना याबाबत सविस्तर माहिती करून घेणार आहोत.



विषयाची माहिती

निसर्गाचा समतोल अबाधित ठेवण्यासाठी आणि जैवविविधता टिकवून ठेवण्यासाठी पर्यावरणातील विविधता टिकवून ठेवणे हे अत्यंत गरजेचे आहे. त्यामध्ये वन्यजीवांचे रक्षण करणे हे सुद्धा तितकेच महत्वाचे आहे. गेल्या कित्येक वर्षांपासून मानव हा वन्यजीवांच्या बरोबरीनेच या पृथ्वीवरील गेल्यागोविंदाने राहत आला आहे. परंतु गेल्या काही दशकांची स्थिती पाहिली तर गेल्या काही इते ४ दशकांमध्ये मानवाने वन्यजीवांच्या बेखुशाल्या केल्या, वाढत्या राहणीकरणात, औद्योगिक कारणात वन्यजीवांच्या राहण्याच्या जागा ठप्प करल्यात आल्या. वाढत्या मृदुपेलागुळे त्यांना वन्यजीवांच्या मनोत्पादन कियेवर प्रतिकूल परिस्थिती निर्माण झाली आहे. आज वन्यजीवांना या पर्यावरणात टिकून राहणे अवघड झाले आहे. या सर्वाना परिणाम म्हणजे आज अनेक प्राण्यांच्या जाती या नष्ट होण्याच्या मार्गावर आहेत.

अस्वल, भाकड, हरीण, हत्ती, वाघ, सिंह यासारखे प्राणी देखील जंगलातच राहतात. म्हणजेच घनदाट जंगल व्हंगले त्यांचा निवास असतो. जंगलातच त्यांच्या गस्ती पूर्ण होत असतात. परंतु मानवाच्या हस्तक्षेपामुळे आज प्राण्यांच्या हास होत चालला आहे. जर परिणामी वन्यजीव द्याव्यात आले आहेत. जर वन्यजीवांची पातळी अशीच कमी होत राहिली तर येवान्या काळात फार गंभीर परिणाम घडून येऊ शकतात. म्हणून हे सर्व जर थांबवायचे असेल तर वन्यजीवांचे संवर्धन आणि संरक्षण करणे गरजेचे आहे. म्हणून वन्यजीव संवर्धन या विषयाचा अभ्यास करणे गरजेचे आहे.



प्रकल्प उद्दिष्ट्ये

- वन्य जीवांच्या चासांची करणे जावून घेणे.
- वन्य जीवांना असलेल्या धोक्यांचा अभ्यास करणे.
- वन्य जीवांच्या संवर्धनासाठी करण्यात येणाऱ्या उपाय योजनांचा अभ्यास करणे.
- आजपर्यंत वन्य जीव संवर्धनासाठी केलेल्या उपाय योजना जावून घेणे.
- वन्यजीव संवर्धन याबाबत सर्वांना माहिती उपलब्ध करून देणे.



प्रकल्प कार्यपद्धती

'व्युत्पत्ति संवर्धन' या प्रकल्प विषयाबाबत माहिती मिळविण्यासाठी मी वर्तमान पत्रे, पर्यावरण विषयक पुस्तके यांच्या माध्यमातून माहिती मिळविली. तसेच परिपरातील लोकांशी चर्चा करून वन्य जीव संवर्धन या विषयाबाबत त्यांची मते जाणून घेतली. त्यांच्याशी संवाद साधून प्राप्त झालेल्या माहितीच्या आधारे प्रकल्पाचे मुद्दे तयार करण्यात आले. तयार झालेल्या मुद्द्यांबाबत अधिक सविस्तर माहिती मिळवता यावी यासाठी मी आंतरजालावर (इंटरनेटवर) उपलब्ध असलेल्या शोधनिक संकेतस्थळांचा वेबसाईचा वापर केला. उपलब्ध माहितीचे संकलन केले. अशा प्रकारे प्रकल्पाबाबत अधिक माहिती मिळवणे शक्य झाले. संकलित केलेल्या माहितीची मुद्देसूद मांडणी केली व ती माहिती प्रकल्पामध्ये पुढे समाविष्ट करण्यात आली आहे. सदर नमुद केलेल्या माहितीच्या आधारे प्रकल्पाचे निरीक्षण विश्लेषण आणि निष्कर्ष यांची नोंद केली.



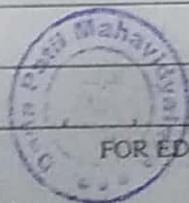
प्रकल्प विश्लेषण

व्यजीवांना असलेले धोके : पर्यावरणातील सगळ्या परिसंस्थांचा समतोल राखण्यासाठी, त्या सशक्त ठेवण्यासाठी या पृथ्वीवरील सर्व प्रकारातील प्राण्यांच्या प्रजाती अत्यंत महत्वाच्या आहेत. परंतु आज या जैवविविधतेला पुढील कारणांमुळे धोका पोहचत आहे.

① व्यजीवांच्या अधिवासाचा न्हास : व्यजीवांच्या राहण्याच्या जागेचा न्हास, संसाधनांचे अतिशोषण, शेती करण्याच्या पद्धतीमध्ये केले जाणारे बदल आणि वाढती लोकसंख्या ही जैवविविधता धोक्यात येण्यामागची प्रमुख कारणे आहेत. अधिवासाची विविध भागांत विभागणी झाल्याने जमिनिचे पडलेले छोटे छोटे तुकडे जैवविविधतेचा भार झेपवू शकणार नाहीत. वाढत्या नागरी वस्तीमुळे सस्तन प्राणी व पक्षी यांच्यासाठी आवश्यक असणारे क्षेत्र प्रमाणापेक्षा कमी झाल्याने काही प्राणी आणि पक्षी यांची संख्या कमी होताना दिसत आहे. परिणामी काही जीवांच्या जाती या परिसरातून लुप्त होण्याच्या मार्गावर आहेत.

② पर्यावरणाचे अतिशोषण : मोठ्या प्रमाणावर परिसरात केली जाणारी शिकार, मासेमारी तसेच पिके होण्यासाठी जमीन उपलब्ध व्हावी यासाठी मोठ्या प्रमाणावर केलेली जंगलतोड यांमुळे जैवविविधतेचे मोठ्या प्रमाणावर नुकसान होत असल्याचे समोर आले आहे.

③ परिसरात परकीय जनावरांची वाढती संख्या : एखाद्या ठिकाणी सुरुवातीपासून त्या ठिकाणी परिसंस्थेत नसणाऱ्या प्रजाती आणल्याने त्या ठिकाणी असणाऱ्या एक जनावरांच्या प्रजातींना धोका निर्माण होतो. परिसरात नवीन प्रजातीच्या विदेशी गायी, म्हशी आणल्या गेल्याने तेथील स्थानिक प्रजाती नामशेष होण्याच्या मार्गावर आहेत.



FOR EDUCATIONAL USE

④ प्रदूषण : दिवसेंदिवस वाहत जाणारे हवा प्रदूषण, आम्स वर्षा झाल्याने वनांचा नाश होत आहे. चांगल्या जलप्रवाहात प्रदूषित पाणी सोडल्याने पाण्यातील जलसृष्टीला धोका निर्माण होतो. प्लास्टिक च्या कचऱ्यामुळे वन्य जीवांवर अनिष्ट परिणाम होत असलेला दिसून येतो. त्यामुळे परिपक्वतातील प्रदूषण हा जैवविविधतेला मोठा धोका आहे. सतत वाहत जाणाऱ्या प्रदूषणामुळे पर्यावरणाचा समतोल हासळत चालला आहे. विविध प्रकारच्या हानिकारक प्रदूषकांमुळे हवा, पाणी आणि जमीन प्रदूषित झाली आहे. आजपर्यंत सस्तन प्राणी काही प्रमाणावर या प्रदूषकांचा प्रतिकार करू शकले आहे. परंतु मासे, कीटक, पक्षी यांच्यावर प्रदूषणाचा मोठ्या प्रमाणावर परिणाम झालेली दिसून येतो.

⑤ हवामानातील बदल : मोठ्या प्रमाणावर वाहत जाणाऱ्या कारखान्यांमुळे तेथील हवामानात बदल घडून आला आहे. गेल्या काही वर्षांत मोठ्या प्रमाणावर प्रदूषणाची पातळी वाढल्याने पर्यावरणातील कीटकांच्या, पक्षांच्या काही प्रजातींवर याचा परिणाम दिसून येत आहे.



वन्य जीवांचे संवर्धन करण्यासाठीचे उपाय

प्राण्यांचे त्या अधिवासाच्या नाभी संवर्धन : या प्रकारच्या संवर्धनामध्ये घोव्यात असणाऱ्या प्राण्यांचे अधिवास संरक्षित केले जातात. जेव्हा विविधतेचे संरक्षण करण्यासाठी राखीव ठेवलेली जमीन असते. आपली राष्ट्रीय उद्याने किंवा अभयारण्य यांच्याद्वारे वन्य जीवांचे संरक्षण आणि संवर्धन केले जाते.

राष्ट्रीय उद्याने व अन्य वन्यजीव अभयारण्ये : वन्यजीवांचे त्यांच्या मूळ अधिवासातच संरक्षण आणि संवर्धन करण्यासाठी आज भारताच्या विविध भागांमध्ये राष्ट्रीय उद्याने व वन्यजीव अभयारण्ये उभारण्यात आलेली आहेत. उत्तरांचल येथे असणारे जीव कोर्बेट राष्ट्रीय उद्यान, मध्य प्रदेश येथे कान्हा आणि बांधवगड राष्ट्रीय उद्यान, गुजरात येथे असणारे गिर राष्ट्रीय उद्यान, राजस्थान राज्यामध्ये असणारे रणथंबोर राष्ट्रीय उद्यान इ.



महाराष्ट्रातील व्याघ्र प्रकल्पांची यादी :

अ.क्र.	स्थान	व्याघ्र प्रकल्प
१.	अमरावती	मेळघाट
२.	वर्धा	बोर
३.	पश्चिम घाट	सह्याद्री
४.	गोंदिया	नवेगाव नागसिरा
५.	चंद्रपूर	ताडोबा अंधारी
६.	नागपूर	पेंच

वन्य जीवांचे मूळ स्थानाबाहेरील संवर्धन : प्राण्यांचे त्यांच्या मूळ स्थितीतील अविवासाच्या बाहेरील संवर्धन. यामध्ये वनस्पती उद्यान, प्राणीसंग्रहालये, गुणसुत्रे कोश, उती इत्यादी प्रकारे संवर्धन केले जाते.

प्राणी संग्रहालये : मूळ स्थानातील संवर्धनाच्या प्रयत्नांना पुस्क म्हणून प्राणी संग्रहालयांची उभारणी करून कृत्रिम वातावरणार प्राण्यांच्या संवर्धनाचे प्रयत्न सध्या केले जात आहेत. देशामध्ये अनेक प्राणी संग्रहालये विकसित करण्यात आली आहेत. आसाम मधील भाविपुरी यामिन हरिण आणि आसाम येथे आढळणारा लाल पांडा यांसारख्या थोक्यात असणाऱ्या प्रजातींचे संवर्धन केले आहे.





प्रकल्प निरीक्षण

भारतातील काही मुख्य संवर्धन आणि संरक्षण विभाग पुढीलप्रमाणे:

संरक्षित केलेल्या विभागाचे नाव	राज्य	संवर्धन करण्यात आलेले प्राणी
मानस राष्ट्रीय उद्यान	आसाम	जंगली भैस
पेरियार राष्ट्रीय उद्यान	केरळ	हत्ती, भुंकणारे हरिण, सांबर
गीर राष्ट्रीय उद्यान	गुजरात	सिंह जंगली अस्वले, चितळ, सांबर
बंदीपूर राष्ट्रीय उद्यान	केरळ	वानर, वाघ, हत्ती, भारतीय गवे
कोल्लेरु राष्ट्रीय उद्यान	आंध्र प्रदेश	पेलिकन व समुद्री पक्षी
जलदापद राष्ट्रीय उद्यान	पश्चिम बंगाल	गेंडे
कान्हा राष्ट्रीय उद्यान	मध्य प्रदेश	वाघ, चित्ता, बारसिंगा
दाचीगाम राष्ट्रीय उद्यान	जम्मू व काश्मीर	भेंडी, वन्यबकरी, काश्मिरी सांबर
कोर्बेट राष्ट्रीय उद्यान	उत्तरांचल	वाघ, भुंकणारे हरिण, अस्वल
केवलदेव राष्ट्रीय उद्यान	राजस्थान	बंदके, फ्लेमिंगो.



FOR EDUCATIONAL USE

निष्कर्ष

- ① वन्य जीवांच्या हासाची कारणे जाणून घेण्यात आली.
- ② वन्य जीवांना असलेल्या धोक्यांचा अभ्यास करून त्यांची नोंद घेतली.
- ③ वन्य जीवांच्या संवर्धनासाठी करण्यात येणाऱ्या उपाय योजनांचा अभ्यास करण्यात आला.
- ④ आज पर्यंत वन्य जीव संवर्धनासाठी केलेल्या उपाययोजनांबाबत अधिक माहिती करून घेतली आणि सदर उपाय योजनांची माहिती संकलित केली.

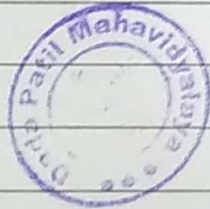
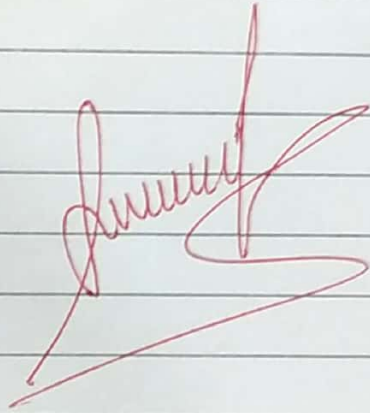


संदर्भ

WWW.educationalmahahti.Com

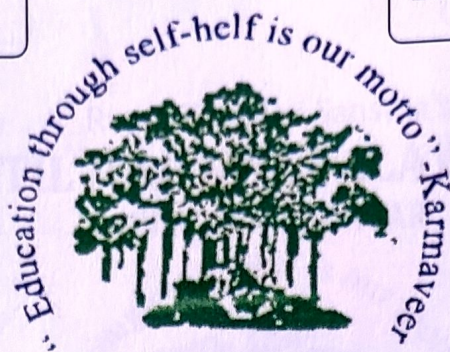
WWW.mazaabhyas.Com

पर्यावरण पुस्तिका



ROLL NO. 116

EXAM SEAT NO. 116



Rayat Shikshan Sanstha's
DADA PATIL MAHAVIDYALAYA, KARJAT
DIST. AHMEDNAGAR

A
PROJECT REPORT
ON

Air pollution.

SUBMITTED BY

NAME: Kopner Rohini Hanumanant

CLASS: S.Y. BSc

UNDER THE GUIDANCE OF

Ms. M.Z. Shaikh.

SUBMITTED TO

DEPARTMENT OF ENVIRONMENT STUDIES

ACADEMIC YEAR (2021-2022)

ROLL NO.

116

EXAM SEAT NO. 116

Rayat Shikshan Sanstha's
DADA PATIL MAHAVIDYALAYA, KARJAT
DIST. AHMEDNAGAR



DEPARTMENT OF ENVIRONMENT STUDIES

CERTIFICATE

Date: 23/05/2022.

This is to certify that,

Mr./Miss. Kopner Rohini Hanumanant

Has satisfactorily carried out the project work, prescribed by the Savitribai Phule Pune University for the **S.Y.B.Sc. / S.Y.B.Sc. (Comp.Sci.)** course in **Environment Studies**. This project work represents his/her bonafide work during the academic year **2021-2022**.

Mshailsh.

Teacher In-charge

AS
Head

Department of Environmental Awareness

Air pollution

Air is composed of ~78% nitrogen, ~21% oxygen, ~0.9% argon. The remaining elements include carbon dioxide, water vapour, hydrogen, and other trace elements. Although gases like carbon dioxide and methane may only exist in small absolute concentrations, their outsized heat-trapping potential as greenhouse gases makes them the major factor in accelerating climate change. Air pollution occurs when there is an alteration to the composition of air, either by volume, or in the chemical, physical, or biological properties. The atmosphere is a delicate balance of elements and particles. Any imbalance, even in small proportions can be detrimental to living organisms including animals and crops.

Air pollution is caused by a combination of gaseous and particulate pollutants such as carbon dioxide, methane, and nitrogen dioxide emitted from point sources such as factories and motor vehicles that burn fuel. Some gaseous emissions are visible to the eye and sometimes may even diffuse into the atmosphere and become invisible. Particulate pollution, on the other hand, such as soot and black carbon, is always visible.

Air pollution is caused by a variety of sources including but not limited to transportation, factory emissions, biomass combustion, and agricultural production

1

. The air pollution emitted from point sources is somewhat easy to quantify. However, the cost of air pollution is much more challenging to quantify because each product and material has a different impact embedded within it. When air pollutants are released into the atmosphere, they have adverse effects on humans and the environment. A notable feature of air pollution is that the effects are compounding, indicating that it can trigger a chain reaction of other environmental effects.

Some examples of Effect → Chain Reaction → Compounded Effect are:

Health problems to human beings and other living beings:
respiratory problems, poisoning blood stream due to inhalation of noxious gases, extinction of species → accelerated requirement of manufacturing of pharmaceuticals & medical care which requires more energy → more energy required is obtained by burning more fuels → more emissions into the atmosphere

Ocean acidification → aquatic and marine life dies faster, rocks in oceans erode faster → creates imbalance in the ocean composition which reduces ocean capacity to absorb pollutants from the atmosphere → more pollutants remain in the atmosphere

Greenhouse effect → global mean temperatures rise which causes irregular and unpredictable weather patterns → Increased devastation from wildfires for weeks, natural calamities and disasters which required emergency services → increased uncontrolled emission in the atmosphere

Anthropogenic air pollution sources are:

1.

Combustion of fossil fuels, like coal and oil for electricity and road transport, producing air pollutants like nitrogen and sulfur dioxide

2.

Emissions from industries and factories, releasing large amount of carbon monoxide, hydrocarbon, chemicals and organic compounds into the air

3.

Air pollution causes

Air pollution is caused by the presence in the atmosphere of toxic substances, mainly produced by human activities, even though sometimes it can result from natural phenomena such as volcanic eruptions, dust storms and wildfires, also depleting the air quality.

Anthropogenic air pollution sources are:

1.

Combustion of fossil fuels, like coal and oil for electricity and road transport, producing air pollutants like nitrogen and sulfur dioxide

2.

Emissions from industries and factories, releasing large amount of carbon monoxide, hydrocarbon, chemicals and organic compounds into the air

3.

Agricultural activities, due to the use of pesticides, insecticides, and fertilizers that emit harmful chemicals

4.

Waste production, mostly because of methane generation in landfills

Carbon Monoxide

Carbon Monoxide – ATSDR Toxic Substances Portal

Carbon Monoxide – EPA Websiteexternal icon

Interaction Profile – Carbon Monoxide, Formaldehyde, Methylene Chloride, Nitrogen Dioxide, Tetrachloroethylene

Lead

Lead – ATSDR Toxic Substances Portal

Lead in Air – EPA Websiteexternal icon

Types of Air pollution

The EPA has identified six pollutants as “criteria” air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. These six pollutants are carbon monoxide, lead, nitrogen oxides, ground-level ozone, particle pollution (often referred to as particulate matter), and sulfur oxides.

Carbon Monoxide

Carbon Monoxide – ATSDR Toxic Substances Portal

Carbon Monoxide – EPA Website [external icon](#)

Interaction Profile – Carbon Monoxide, Formaldehyde, Methylene Chloride, Nitrogen Dioxide, Tetrachloroethylene

Lead

Lead – ATSDR Toxic Substances Portal

Lead in Air – EPA Website [external icon](#)

Interaction Profile – Chlorpyrifos, Lead, Mercury, and Methylmercury

Nitrogen Oxides

Nitrogen Oxides – ATSDR Toxic Substances Portal

Nitrogen Dioxide – EPA Websiteexternal icon

Ozone

Air Quality – Environmental Public Health Tracking

Ground Level Ozone – EPA Websiteexternal icon

Particulate Matter

Air Quality – Environmental Public Health Tracking

Particulate Matter (PM) – EPA Websiteexternal icon

Podcast – What is Modeled Air Data?

Sulfur Dioxide

Sulfur Dioxide – ATSDR Toxic Substances Portal

Sulfur Dioxide – EPA Websiteexternal icon

Other Air Pollutants

Fuel Oils/Kerosene – ATSDR Toxic Substances Portal

Acrolein – Aromatic hydrocarbons (PAHs)

Acrolein – ATSDR Toxic Substances Portal

Asbestos

Polycyclic Aromatic Hydrocarbons (PAHs) – ATSDR Case Study in Environmental Medicine

Asbestos – ATSDR Website

Synthetic Vitreous Fibers

Benzene

Synthetic Vitreous Fibers – ATSDR Toxic Substances Portal

Benzene – ATSDR Toxic Substances Portal

Total Petroleum Hydrocarbons

Carbon Disulfide

Total Petroleum Hydrocarbons (TPH) – ATSDR Toxic Substances

Carbon Disulfide – ATSDR Toxic Substances Portal

Creosote

Creosote – ATSDR Toxic Substances Portal

Fuel oils/Kerosene

Fuel Oils / Kerosene – ATSDR Toxic Substances Portal

Polycyclic Aromatic Hydrocarbons (PAHs)

Polycyclic Aromatic Hydrocarbons (PAHs) – ATSDR Toxic Substances Portal

Polycyclic Aromatic Hydrocarbons (PAHs) – ATSDR Case Study in Environmental Medicine

Synthetic Vitreous Fibers

Synthetic Vitreous Fibers – ATSDR Toxic Substances Portal

Total Petroleum Hydrocarbons

Total Petroleum Hydrocarbons (TPH) – ATSDR Toxic Substances Portal

1. Using public transports

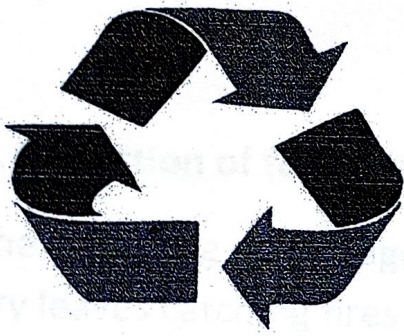
Using public transport is a sure short way of contributing to less air pollution as it provides with less gas and energy, even carpools contribute to it. In addition to less release of fuels and gas, using a public transport can also help in saving money.

2. Turn off the lights when not in use

The energy that the lights take also contribute to air pollution, thus less consumption of electricity can save energy. Use energy saving fluorescent lights to help the environment.

3. Recycle and Reuse

The concept of recycle and reuse is not just conserve resources and use them judiciously but also is helpful for air pollution as it helps in reducing pollution emissions. The recycled products also take less power to make other products.



**REUSE
REDUCE
RECYCLE**

6. Use of fans instead of Air Conditioner

The usage of AC's takes a lot of energy and emits a lot of heat which is bad for the environment. AC's also take a lot of power and energy to work as compared to fans.

4. No to plastic bags

The use of plastic products could be very harmful to the environment as they take a very long time to decompose, due to their material made up of oil. The use of paper bags instead is a better alternative as they decompose easily and are recyclable.

5. Reduction of forest fires and smoking

The collecting of garbage and getting it on fire in dry seasons or dry leaves catching fires is a huge factor for causing air pollution, moreover smoking also causes air pollution and causes the air quality to worsen along with obviously damaging one's health.

6. Use of fans instead of Air Conditioner

The usage of AC's takes a lot of energy and emits a lot of heat which is bad for the environment. AC's also take a lot of power and energy to work as compared to fans.

10. Implement Afforestation

7. Use filters for chimneys

The gas that is emitted from fireplaces in homes and factories are extremely dangerous for air pollution and harms the air quality severely. The use of filters should be used at least if the consumption couldn't be lessened, this will help to reduce the effect of harmful gases absorbing in the air.

8. Avoid usage of crackers

The use of crackers during festivals and weddings is sadly one of the biggest contributors to air pollution, leading to a layer of smog which is extremely harmful for health. So, practice of no crackers should be implemented.

9. Avoid using of products with chemicals

Products that use the chemicals in their usage or smell strongly, like paints or perfumes should be used less or outside the house. There can also be an alternative to use products with low chemical content and organic properties.

10. Implement Afforestation

Last but not the least, plant and grow as many trees as possible. The practice of planting trees provides a lot of benefits to the environment and helps with the release of oxygen.

CONCLUSION

While the effects of air pollution on materials, vegetation, and animals can be measured, health effects on humans can only be estimated from epidemiological evidence. Most of the evidence comes from occupational exposure to much higher concentrations of pollutants than the general public is exposed to. Moreover, the health effects of smoking and other lifestyle characteristics and exposures confound the observations of air pollutant effects. Ethical considerations preclude deliberate exposure of human subjects to concentrations of pollutants that might produce adverse effects, so evidence from sources other than epidemiology is virtually impossible to obtain. All of the evidence we have suggests that air pollutants threaten human health and well-being to an extent that control of these pollutants is necessary.

Reference

Air pollution is a mixture of solid particles and gases in the air. Car emissions, chemicals from factories, dust, pollen and mold spores may be suspended as particles. Ozone, a gas, is a major part of air pollution in cities. When ozone forms air pollution, it's also called smog.

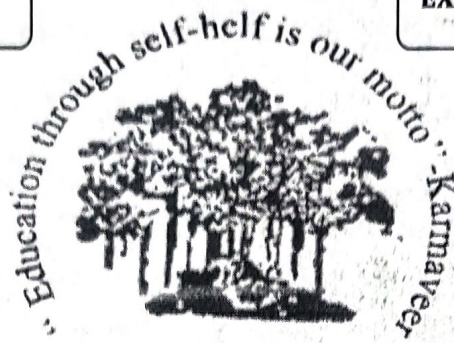
Some air pollutants are poisonous. Inhaling them can increase the chance you'll have health problems. People with heart or lung disease, older adults and children are at greater risk from air pollution. Air pollution isn't just outside - the air inside buildings can also be polluted and affect your health.

Reference

The presence in the air of any air pollutant that reduces air quality enough to threaten the health and welfare of people, plants, and animals, to adversely affect materials and structures, and/or to interfere with the enjoyment of life and property. Although there are a number of important natural sources of air pollution (including forest fires and volcanic eruptions), the term is usually applied to substances released into the atmosphere as a result of human activities, which can be either deliberate (such as the continual release of gases from factory chimneys) or accidental (such as the release of material from the damaged Chernobyl nuclear power station, and the Bhopal explosion).

ROLL NO. 66

EXAM SEAT NO. 1172002398



Rayat Shikshan Sanstha's
DADA PATIL MAHAVIDYALAYA, KARJAT
DIST. AHMEDNAGAR

A
PROJECT REPORT
ON

Global Warming

SUBMITTED BY

NAME: Gawali Sonali Sunil

CLASS: S.Y. Bsc

UNDER THE GUIDANCE OF

Mr. V. K. Pandit, Mr. A. R. Pardeshi

SUBMITTED TO

DEPARTMENT OF ENVIRONMENT STUDIES

ACADEMIC YEAR (2021-2022)

ROLL NO.

68

EXAM SEAT NO. 1172002398

Rayat Shikshan Sanstha's
DADA PATIL MAHAVIDYALAYA, KARJAT
DIST.AHMEDNAGAR



DEPARTMENT OF ENVIRONMENT STUDIES

CERTIFICATE

Date: 24/05/22

This is to certify that,

Mr./Miss. Awali Sonali Sunil

Has satisfactorily carried out the project work, prescribed by the Savitribai Phule Pune University for the S.Y.B.Sc. / S.Y.B.Sc. (Comp.Sci.) course in **Environment Studies**. This project work represents his/her bonafide work during the academic year **2021-2022**.


Teacher In-charge


Head

Department of Environmental Awareness

It should NOT be confused with climate

change !!

Difference

GLOBAL WARMING

is the increase of the Earth's average surface temperature due to a build-up of greenhouse gases in the atmosphere.



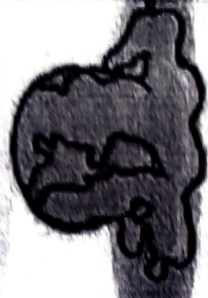
CLIMATE CHANGE

is a broader term that refers to long-term changes in climate, including average temperature and precipitation.





What is global warming?



Global warming refers to the rising average temperature of Earth's atmosphere and oceans, which started to increase in the late 19th century and is projected to keep going up. Since the early 20th century, Earth's average surface temperature has increased by about 0.8 C (1.4 F), with about two thirds of the increase occurring since 1980. Warming of the climate system is unequivocal, and scientists are more than 90% certain that most of it is caused by increasing concentrations of greenhouse gases produced by human activities such as deforestation and burning fossil fuels. These findings are recognized by the national science academies of all the major industrialized nations.

An increase in global temperature will cause sea levels to rise and will change the amount and pattern of precipitation, and a probable expansion of subtropical deserts. Warming is expected to be strongest in the Arctic and would be associated with continuing retreat of glaciers, permafrost and sea ice. Other likely effects of the warming include more frequent occurrence of extreme-weather events including heat waves, droughts and heavy rainfall, species extinctions due to shifting temperature regimes, and changes in crop yields.

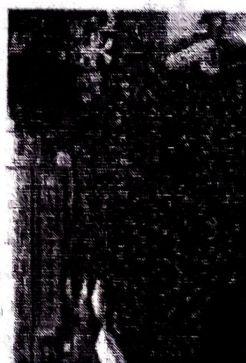
How Global Warming Works



Greenhouse gases

Fossil fuels (coal, oil, natural gas)

CAUSES OF GLOBAL WARMING



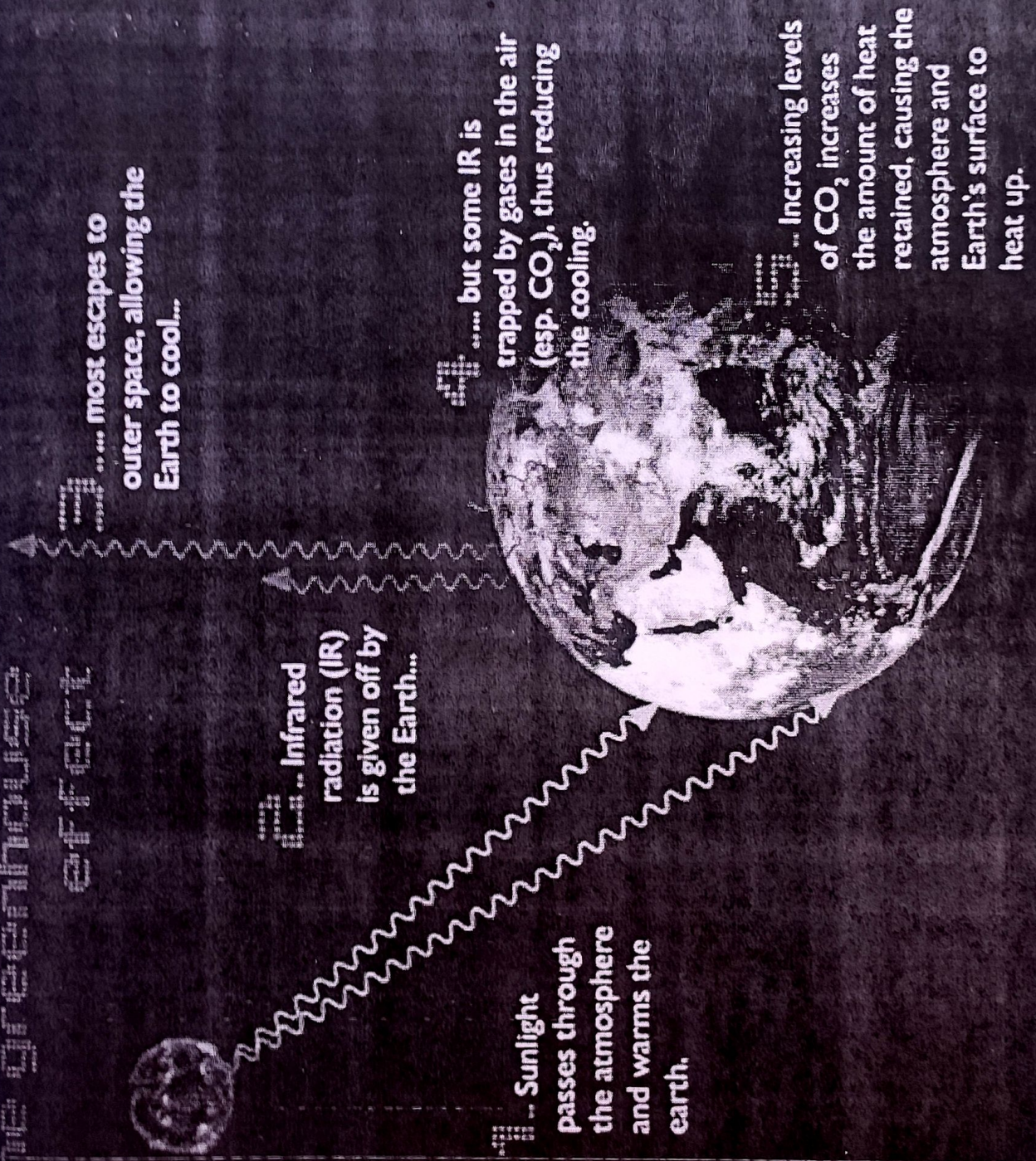
**POLLUTION FROM COAL,
NATURAL GAS, AND OIL**

CO₂ FROM AIRPLANES & VEHICLES

POPULATION INCREASE

DEFORESTATION

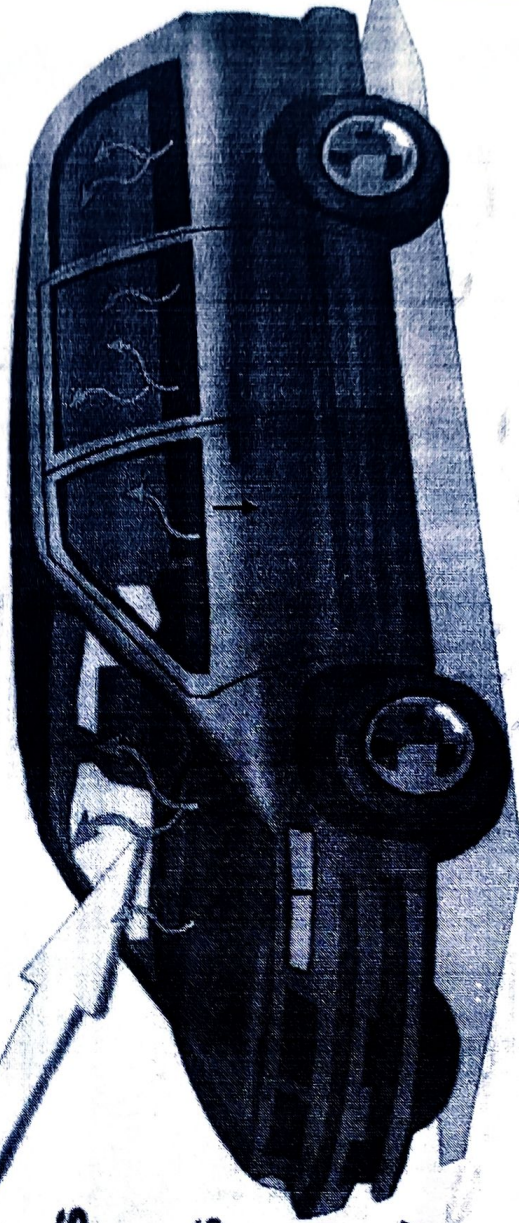
The Greenhouse Effect



Example of the Greenhouse Effect

The Sun's energy passes through the car's windshield.

This energy (heat) is trapped inside the car and cannot pass back through the windshield, causing the inside of the car to warm up.



Global warming causes-



Melting of glaciers



Polar Bear Extinction



Warmer waters and more hurricanes



Increased probability and intensity of droughts and heat waves



Melting
Polar ice caps



Increased Temperature

Animals like these



think like.....

WHERE IS my habitat...!!!



Global warming causes-

Temperatures

- Between the years 1860-1900 average temperatures have increased by 0.75 degrees Celsius.
- Over the past 100 years global temperatures have risen by 1.3 degrees.

Weather in recent winters

- Recent winter was the warmest winter ever recorded(in the history of the planet Earth).
- 10 out of the past 14 years are the warmest on record.

Glacier and Ice Cap Melting

- Evidence of global warming is very apparent in the recent melting of ice sheets.
- Two places where melting has become extremely visible are Antarctica and Greenland.
- One problem with this is that much less heat is absorbed by snow than by water, thus worsening the effect as the ice retreats.
- One area of particular concern is the Himalayans. 1/3 of the worlds fresh drinking water comes from the run off from this glacier system.
- A direct consequence from our polluting actions will be the disappearance of these vital glaciers.

Sea level rising

- Possibly the biggest threat brought by global warming is rapid sea level changes.
- Two years ago the entire Larsen B ice shelf broke away into pieces in less than a month. Scientists thought it would be at least a decade before this shelf melted, even with global warming.
- Both Greenland and Western Antarctica are depleting at shocking rates.
- Not all of global Warming's effects are unprecedented.

Major CONSEQUENCE



At others.....



SOMEWHERE it's
tooo.....ooo



WHEREAS At others tooo.....

Its all because of
GLOBAL WARMING



GLOBAL WARMING?
WHAT GLOBAL WARMING?

CAUSED BY WHOM...???

**WHO IS THE
CULPRIT???**

TERROR

WE the **HUMANS** are

the ones causing it

BUT We need PROOF !!

© 2004
Earth First!



SO Here's the PROOF



Alaska Portage Glacier

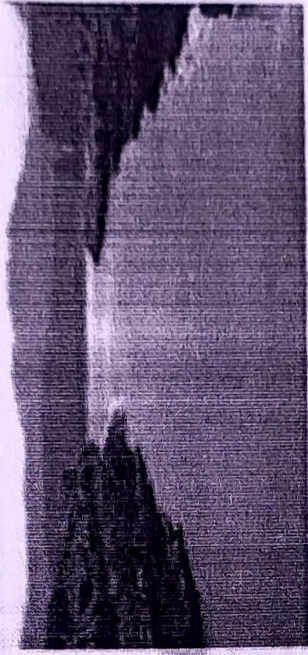


1914



2004

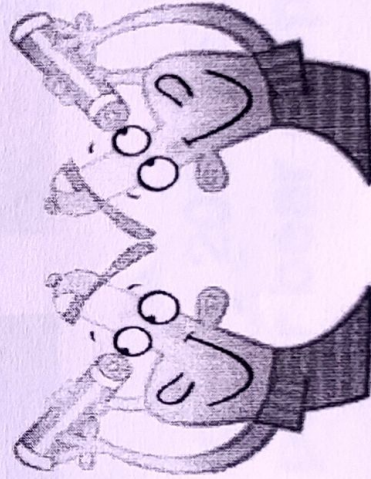
Arizona Colorado River



June 2002



Dec 2003



ANTARCTICA – losing ice

faster..!!!!!!



BEFORE



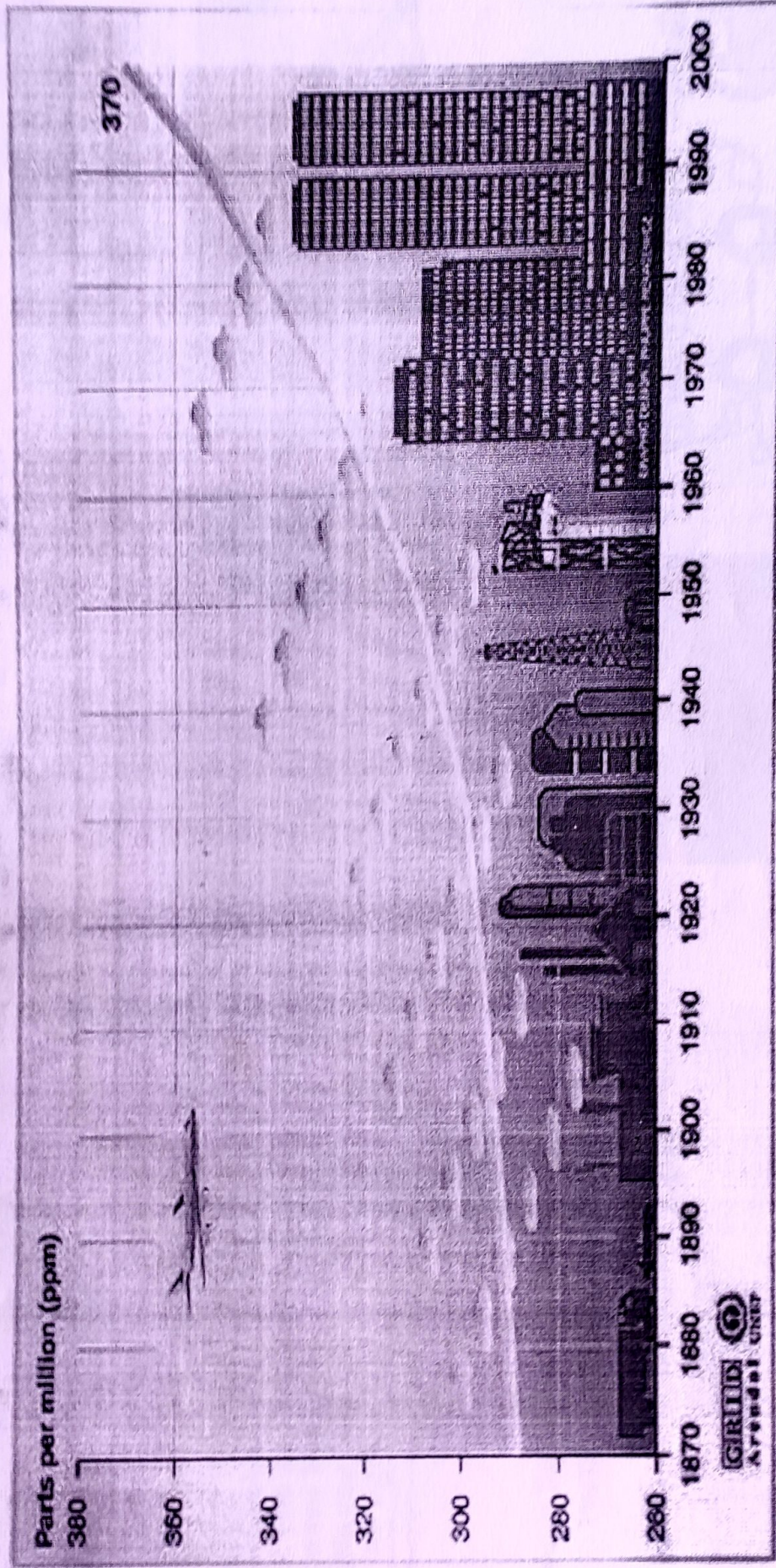
NOW



"There will be no polar ice by 2060...Somewhere along that path, the polar bear drops out."

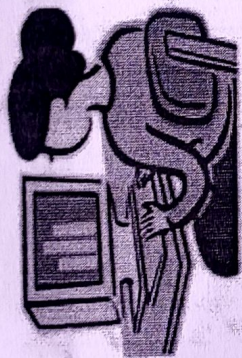
When did global warming start ?

Global Atmospheric Concentration of CO₂





Spread Awareness



Turn off your computer or the TV when you're not using it.

Save the Planet

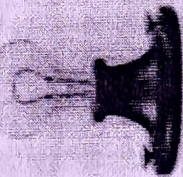


Energy Saving Reminder

If you are the last to leave the room, please turn off the lights!



Incandescent



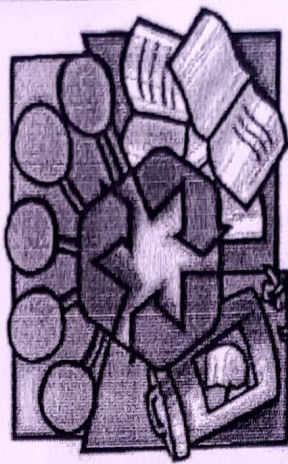
Compact Fluorescent



500 lbs. of coal

1,430 lbs. CO₂ pollution avoided - \$30 saved

Be Bulb Smart—Use CFLs



Recycle

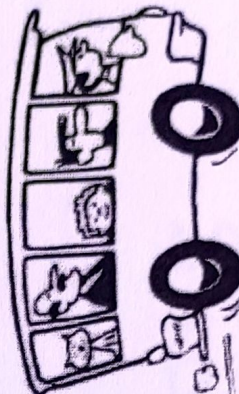
Dress lightly when it's hot instead of turning up the air conditioning.



Drive LESS, drive SMART



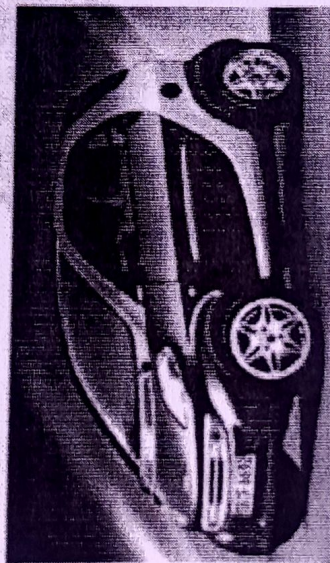
Use a bicycle or bus



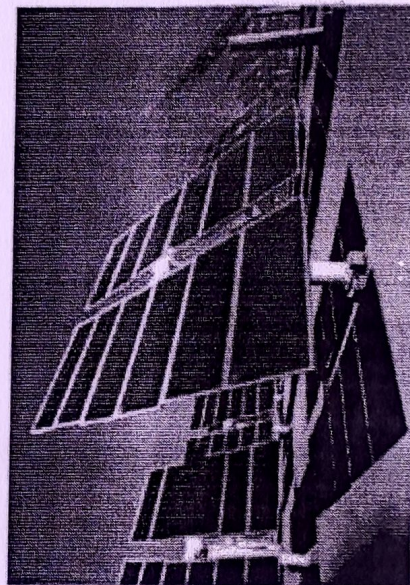
AND HAVE FAITH ON



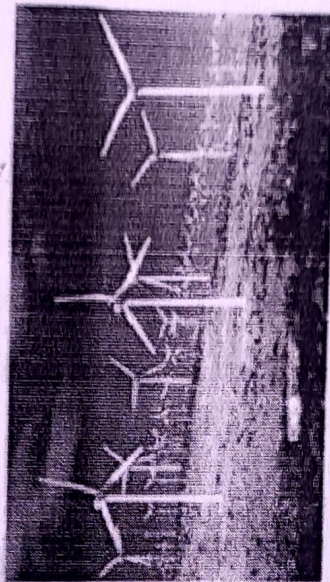
Fuel efficient cars



Solar Power



Wind Power

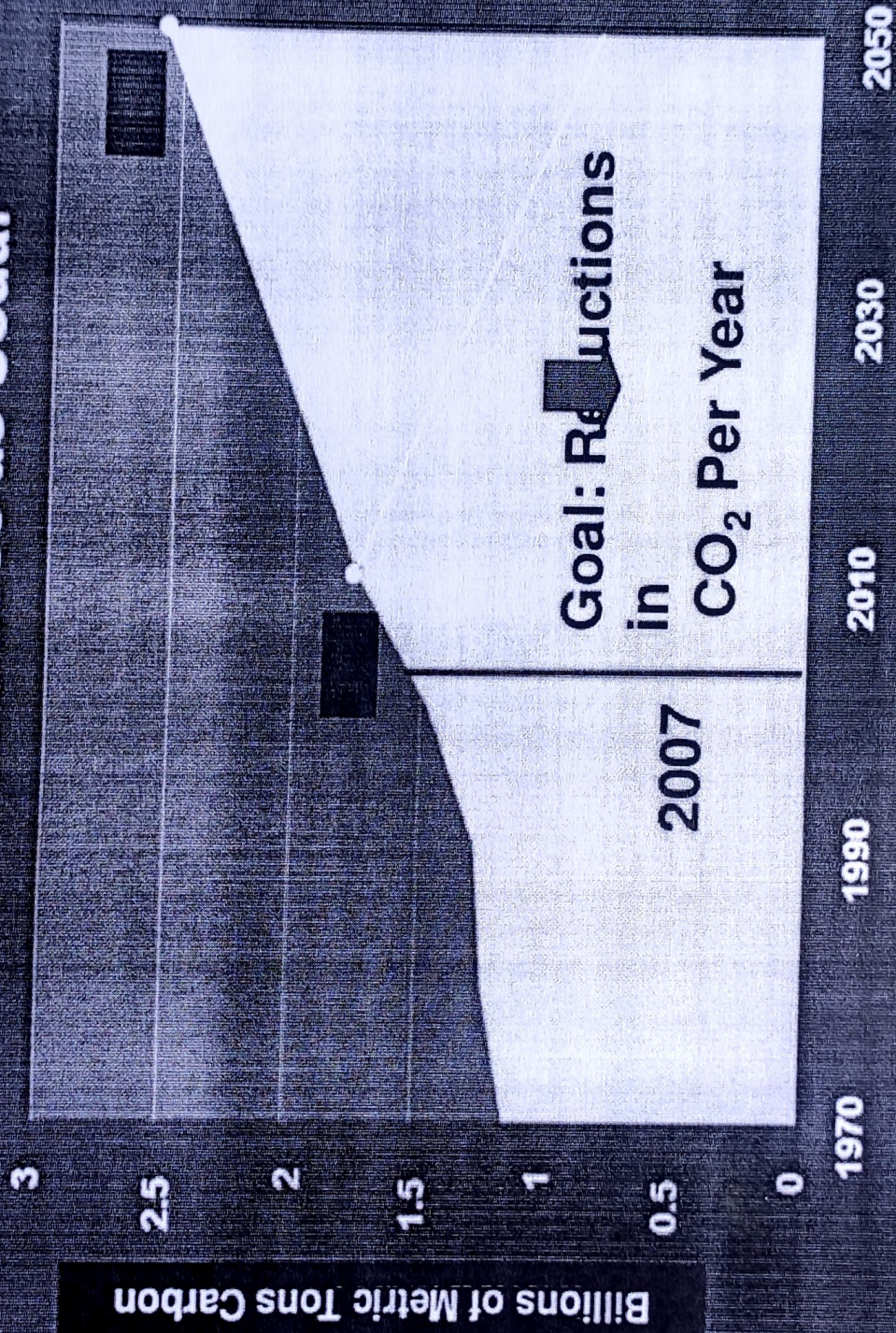


Hey.....!!! Its working

Global Warming: Shifting Gears



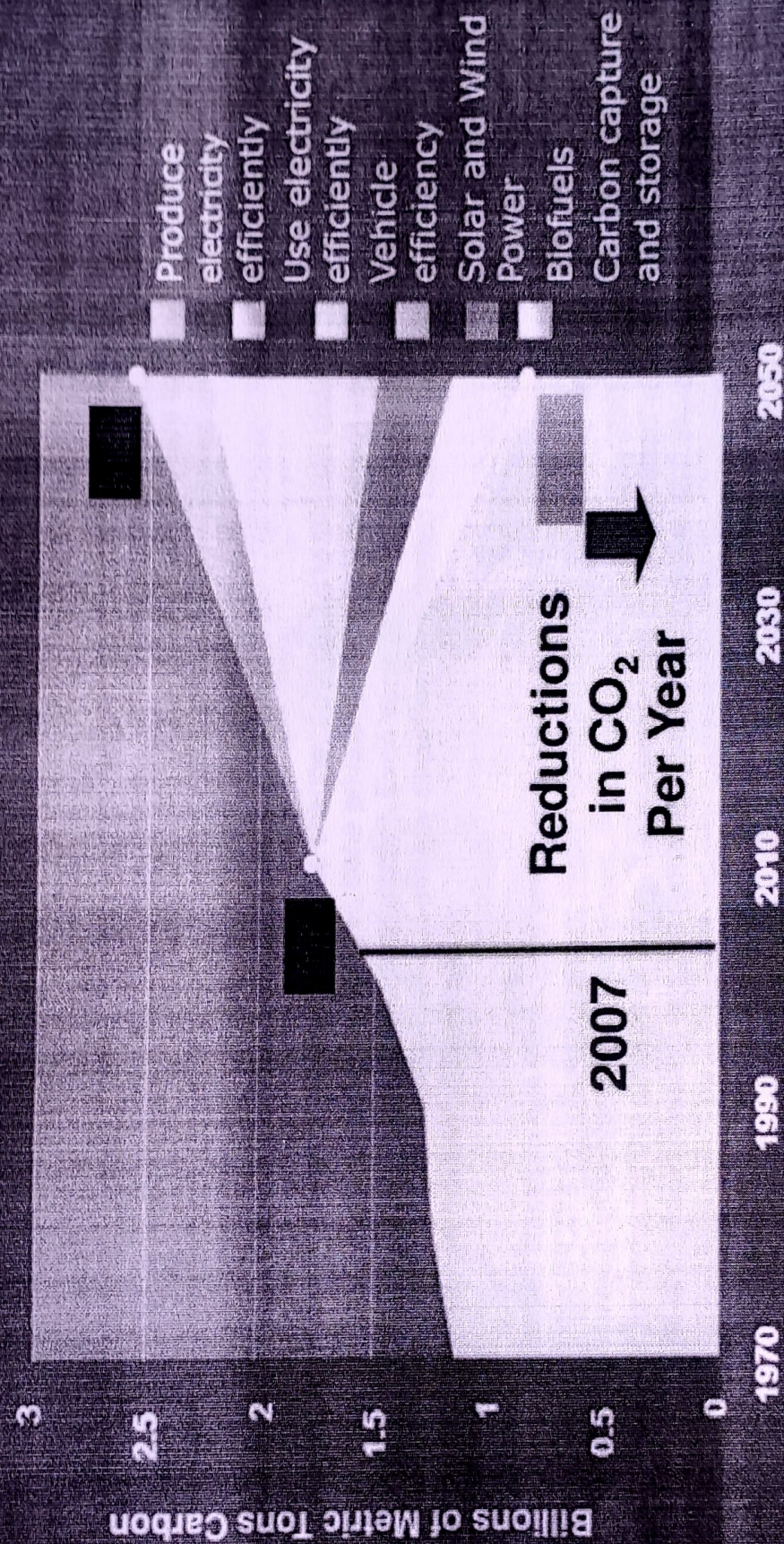
U.S. Emissions Business as Usual



After Pacala and Socolow, 2004; ARJ Carbon3 Spreadsheet



Our Goal



RESPONSE TO GLOBAL WARMING

MITIGATION

In order to limit warming to within the lower range described in the IPCC's "Summary Report for Policymakers" it will be necessary to adopt policies that will limit greenhouse gas emissions to one of several significantly different scenarios described in the full report. This will become more and more difficult with each year of increasing volumes of emissions and even more drastic measures will be required in later years to stabilize a desired atmospheric concentration of greenhouse gases. Energy-related carbon-dioxide (CO₂) emissions in 2010 were the highest in history, breaking the prior record set in 2008.

Since even in the most optimistic scenario, fossil fuels are going to be used for years to come, mitigation may also involve carbon capture and storage, a process that traps CO₂ produced by factories and gas or coal power stations and then stores it, usually underground.

ADAPTATION

Other policy responses include adaptation to climate change. Adaptation to climate change may be planned, e.g., by local or national government, or spontaneous, i.e., done privately without government intervention. The ability to adapt is closely linked to social and economic development. Even societies with high capacities to adapt are still vulnerable to climate change. Planned adaptation is already occurring on a limited basis. The barriers, limits, and costs of future adaptation are not fully understood.

REENGINEERING

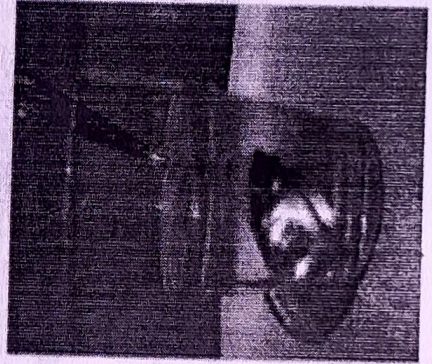
A body of the scientific literature has developed which considers alternative reengineering techniques for climate change mitigation. In the IPCC's Fourth Assessment Report (published in 2007) Working Group III (WG3) assessed some "apparently promising" reengineering techniques, including ocean fertilization, capturing and sequestering CO₂, and techniques for reducing the amount of sunlight absorbed by the Earth's atmospheric system.^[132] The IPCC's overall conclusion was that reengineering options remained "largely speculative and unproven, (...) with the risk of unknown side-effects."^[133] In the IPCC's judgement, reliable cost estimates for reengineering options had not yet been published.

As most reengineering techniques would affect the entire globe, deployment would likely require global public acceptance and an adequate global legal and regulatory framework, as well as significant further scientific research.

Interesting evidence of global warming

- In far northern Canada the Native Inuit have noticed the sun rise significantly earlier in the year (2 months)

- This phenomena is an example of how little we know about the possible implications of global warming



- This has been caused by the warming of the layer of air above the snow. This distorts the sun's light, literally causing it to rise earlier.

CONCLUSION

The term *global warming* was probably first used in its modern sense on 8 August 1975 in a science paper by Wally Broacher in the journal Science called "Are we on the brink of a pronounced global warming?". Broacher's choice of words was new and represented a significant recognition that the climate was warming; previously the phrasing used by scientists was "inadvertent climate modification," because while it was recognized humans could change the climate, no one was sure which direction it was going. The National Academy of Sciences first used *global warming* in a 1979 paper called the Carney Report, it said: "if carbon dioxide continues to increase no reason to doubt that climate changes will result and no reason to believe that these changes will be negligible." The report made a distinction between referring to surface temperature changes as *global warming*, while referring to other changes caused by increased CO₂ as *climate change*.

Global warming became more widely popular after 1988 when NASA climate scientist James Hansen used the term in a testimony to Congress. He said: "global warming has reached a level such that we can ascribe with a high degree of confidence a cause and effect."

The Earth is melting!

Use less energy

“Save the Earth

to save

Our Future”



Preetish Priyadarshi Samal