

Army Marg, Defence Colony, New Delhi-110054
State Council of Educational Research and Training



TECHNICAL ECOSYSTEMS

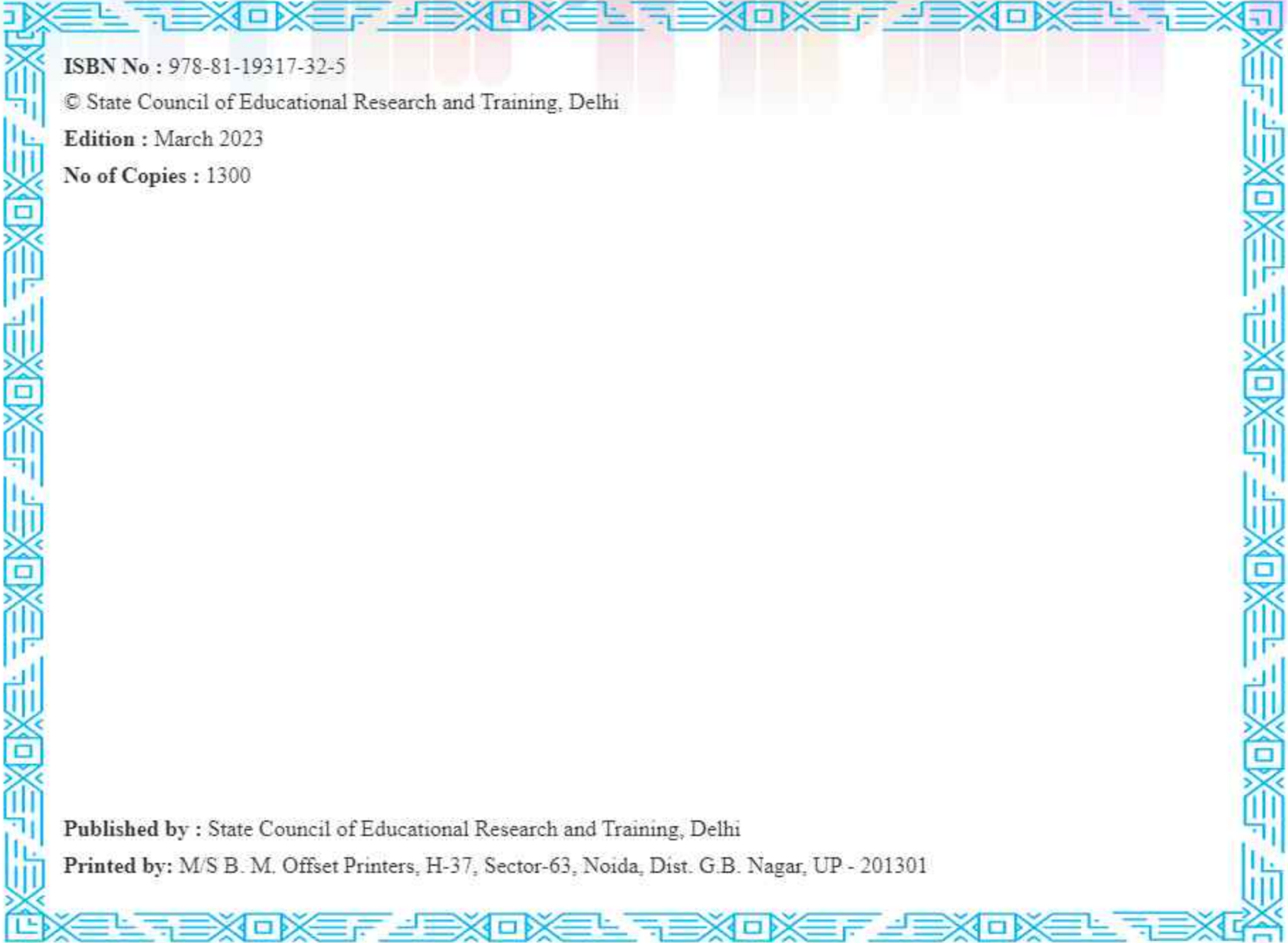
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THROUGH ECOLOGICAL

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PREFACE

The National Education Policy, 2020 states, 'The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015 – seeks to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” by 2030. Such a lofty goal will require the entire education system to be reconfigured to support and foster learning, so that all of the critical targets and goals (SDGs) of the 2030 Agenda for Sustainable Development can be achieved.'

Keeping this in mind, the State Council of Educational Research and Training, Delhi has developed a Book titled, 'Step Towards Achieving Sustainable Development Goals through Ecoclubs'. The Sustainable Development Goals were adopted by the United Nations in 2015 as a universal call to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. There is a need to create awareness about the SDGs in the learners. In this book, an effort has been made to create awareness about the Sustainable Development Goals in the young minds through the ecoclubs.

While achieving the Sustainable Development Goal 4 of ensuring free, equitable, and quality primary and secondary education for all children, conscious efforts must be made to make the learners aware about other sustainable development goals through active participation of the learners in various activities. The book addresses various issues at different levels ranging from personal to local to global levels. The measures to resolve these issues or contribute in resolving these issues need to be deliberated. These issues cannot be resolved only at the level of Ecoclubs but needs the interventions by various agencies. Here, learning about SDGs will develop insights among not only the Ecoclub members but all the learners of the school. The Ecoclub In-charges of the school can engage all learners to address the issues and find solutions to many problems in an integrated manner.

In the light of overexploitation of resources and subsequent deterioration in the quality of the environment, it becomes necessary to shift our lifestyles to eco-friendly ways. It will help in the replenishment of resources in due course of time. It is high time that all the citizens must take appropriate action for conservation of the environment and for sustainable development otherwise it will lead to permanent damages to the environment and endanger the life of all living beings.

An attempt has been made to involve not only the learners but their families as well for wider reach in moving forward for achieving SDGs. This book will assist Ecoclub incharges by involving the young generation with innovative minds to attain some of the goals by adopting small measures. Besides eco-friendly behavior, leadership qualities will also be developed in the learners. This book will also help in developing 21st century skills such as creativity and innovation, communication, collaboration, critical thinking, etc among the learners. It will guide learners for enhancing peer learning, team building, ownership, sense of belongingness, etc.

This book is a very small step in achieving the Sustainable Development Goals but will kindle a sense of responsibility in Ecoclub incharges as well as the learners towards protection of mother nature, they will certainly contribute for sustainable development. Heartfelt gratitude to all the team members who have contributed in making this book.

Suggestions for improvement are always welcome.

ACKNOWLEDGEMENT

State Council of Educational Research and Training, Delhi expresses heartfelt gratitude to all the individuals and organizations involved in the development of this book titled 'Step towards Achieving Sustainable Development Goals through Ecoclubs'. The Council also acknowledges the contributions of all the contributors and experts.

The Council also acknowledges the contributions of all the learners whose posters or paintings have been incorporated in the book. Special thanks are due to Ms. Rakhi Sharma, Drawing Teacher, RPVV, Sec 10, Dwarka for sharing her posters for the book. The contributions of Mr. Surendra, Mentor Teacher, MCD, Mr. Dilip Bharti, Mentor Teacher, MCD and Ms. Divya, SowGood are also acknowledged.

Thanks are due to all the authors and publications whose works have been referred to during the development of the book. The efforts of Publication Branch are highly appreciated.

ABOUT THE BOOK

The book 'Step towards Achieving Sustainable Development Goals through Ecoclubs' has been developed by State Council of Educational Research and Training, Delhi to create awareness about sustainable development goals among the learners and develop positive attitude, values and skills towards conservation of environment. It is our responsibility to ingrain in our children the love for nature, natural resources and natural living.

The book contains eight chapters. Chapter 1 is Introduction which includes an introduction about sustainable development goals given by the United Nations. Chapter 2-8 are about Sustainable Development Goals : SDG 2 (Zero Hunger), SDG 3 (Good Health and well-being), SDG 6 (Clean water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action), each chapter starts with a cover page for the goal which includes the logo of the goal, a slogan related to the goal, and a poster related to the goal. After this, the targets of the goal are written. These have been selected keeping in mind the age-group of the learners and the contribution ecoclubs can make in achieving the target. These chapters contain the activities, projects and/or games. Learners will find these activities simple and interesting.

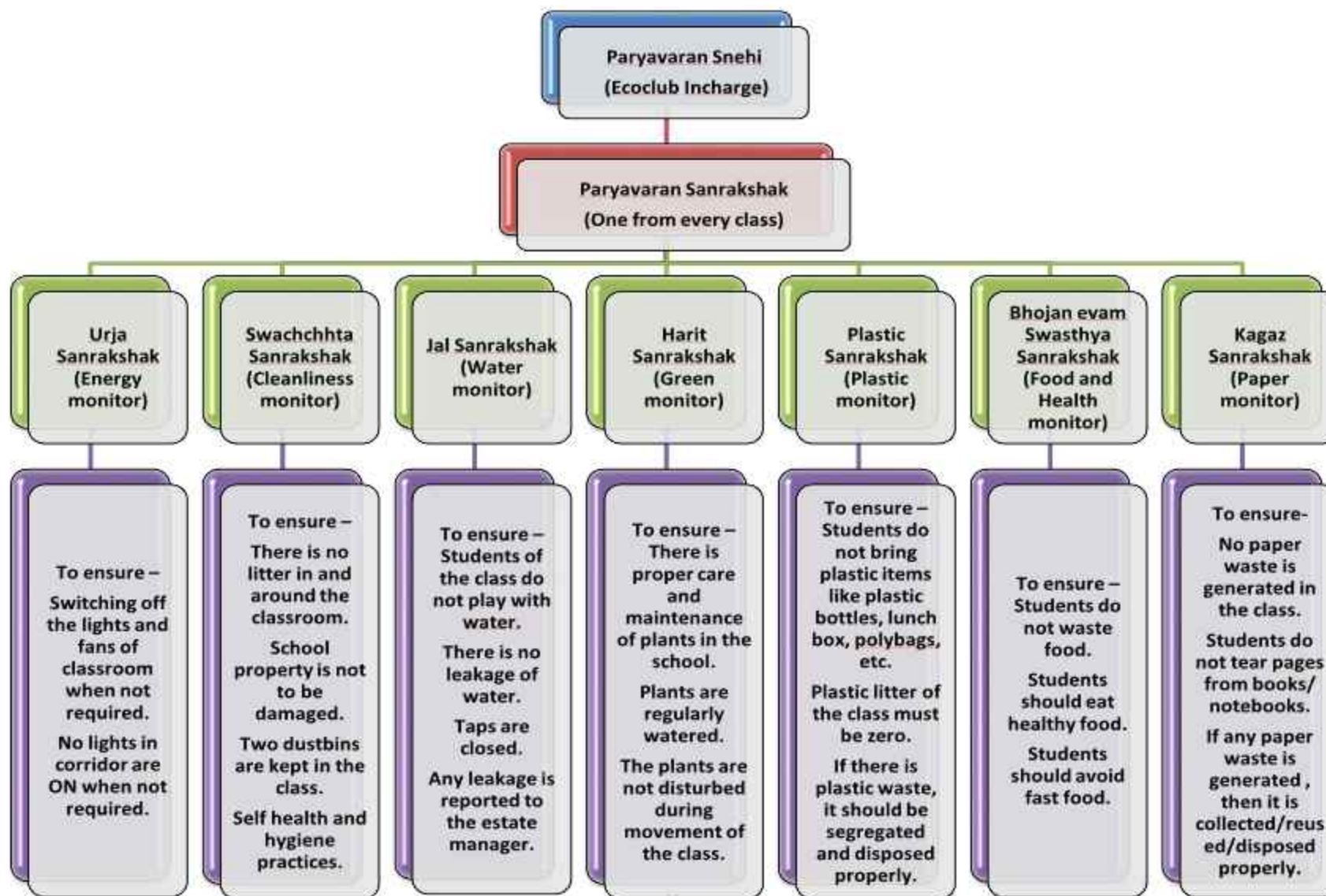
The book has been designed keeping in view the inculcation of environmental attitude among not only the ecoclub members of the schools but all the learners of the school. All the learners will be involved in various activities through the Ecoclubs and the learners will carry the knowledge home and will try to involve family/neighbour/ society in achieving the goals.

Active participation in activities will help in developing 21st century skills such as creativity and innovation, communication, collaboration, critical thinking, etc among the learners. It will also enhance leadership qualities, peer learning, team building, ownership, sense of belongingness, etc. among the learners. A range of activities are given in the book for preparatory, middle and secondary stage. The Paryavaran Snehi can decide the appropriateness or the depth of an activity for any stage. It is not necessary that all the stages should be involved in a particular activity. Paryavaran Snehi can modify the activity as per the requirement of the members or the resources available. Some of the roles for Paryavaran Snehi are:

- Think of a creative & innovative name for eco-club.
- Design a monogram for the eco club.
- Design badges for different ranks of students. For example Prehri, and different Sanrakshak.
- To call meetings every fortnightly/monthly for 10 minutes after the assembly to take a review of the work going on.

NEP 2020 stresses on bagless days. These activities can be done on bagless days also. The learners will realize the importance of their small and dedicated efforts and how these small efforts will contribute in saving the planet. This book will develop the love for nature in the young minds and will definitely bear fruits and time will come when humans will live in harmony with nature.

CONSTITUTION OF ECOCLUB



GUIDELINES FOR MAKING ACTIVITIES INCLUSIVE

- Accessible content for transacting the activities- Braille, large print, Audio descriptions, highlighters, tactile markers, sight words, relevant pictures, gestures/signs for new vocabulary etc should be used to make content accessible for all.
- Systematic and sequential arrangement of materials/ ingredients required, is to be done to perform the activities.
- Children with disabilities should be pre-familiarised with the setup.
- Prompts (verbal, physical and pictorial) should be used as per the needs to facilitate learning.
- Use of Technology/ ICT should be promoted to aide acquisition of concepts.
- Adaptation and accommodation to be done as per specific needs of children, using low cost/ locally available materials.
- In absence of accessible measuring devices , measured quantity of the required ingredients/ material is to be provided to CWD's (Children with disabilities) if needed.
- Peer Pairing / small group activities to be planned so that CWD's (Children with disabilities) get equal opportunity to participate with required support.
- Pacing and meaningful repetition of the instructions should be done to enable all children accomplish the given task.
- Activities should be broken into smaller steps to assist mastery of subskills needed to perform activities.

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INTRODUCTION

Development is an essential phenomenon in every era. Without development, humans would have remained in the primitive stage. Humans need the resources present on the planet for their development. But 'the need turned into greed' and they began to utilize the resources extensively. They harness the resources and generate waste to such an extent that it deteriorates the environment and it has become difficult for humans to survive on earth. This is called the Anthropocene Era. The anthropogenic activities have led to the extinction of many species and have endangered the survival of humans itself. It was then, the importance of Sustainable Development was realized by humans and efforts were made to protect the environment.

Sustainable Development is the development that meets the needs of the present, without compromising the ability of future generations to meet their own needs. The importance of sustainable development is being addressed at various platforms nationally as well as internationally. Over the decades, many conferences have been held and various plans and policies have been framed for it. Though many steps have been taken by various authorities to save the environment, it is still a distant dream. It will be a game changer only when the common people become aware of the gravity of the environmental problems, their impacts and the steps they can take for sustainability of environment. The people should know what they should do and what they should not do to save their future and future generations in terms of their social and economic life. The time is running out and so urgent actions are required to be taken.

HISTORY OF SUSTAINABLE DEVELOPMENT GOALS

Sustainable development has long been talked about at various international platforms. Sustainable development can be achieved by framing plans and policies which fulfill the needs of today, without sacrificing the state of environmental, social and personal health in the future.

This approach is to minimize the negative impact of development on the environment & society so that the natural resources are conserved, thus reducing the wastage and overuse of resources. It leads to a just society and a sustainable world for everyone.

Several efforts have been taken for the conservation of environment. Some of them are:

YEAR	PROGRAMME	PLACE	OUTCOME
June 1992	Earth Summit	Rio de Janeiro, Brazil	Adoption of Agenda 21, a comprehensive plan of action to build a global partnership for sustainable development to improve human lives and protect the environment by 178 countries
June 1992	Earth Summit	Rio de Janeiro, Brazil	Adoption of Agenda 21, a comprehensive plan of action to build a global partnership for sustainable development to improve human lives and protect the environment by 178 countries
September 2000	Millennium Summit	UN Headquarters, New York	Adoption of Millennium Declaration Eight Millennium Development Goals (MDGs) were elaborated to reduce extreme poverty by 2015
2002	World Summit on Sustainable Development	South Africa	Adoption of Johannesburg Declaration on Sustainable Development and the Plan of Implementation
June 2012	United Nations Conference on Sustainable Development (Rio+20)	Rio de Janeiro, Brazil	The outcome document "The Future We Want" was adopted in which it was decided to launch a process to develop a set of SDGs to build upon the MDGs and to establish the UN High-level Political Forum on Sustainable Development.
September 2015	UN Sustainable Development Summit	New York	"Adoption of the Transforming our world: the 2030 Agenda for Sustainable Development with its 17 SDGs"

SUSTAINABLE DEVELOPMENT GOALS

In September 2015, Transforming our world: the 2030 Agenda for Sustainable Development was adopted at the United Nations Sustainable Development Summit. It 'provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests'(UN website). To achieve the 17 SDGs, there are 169 targets.

The 17 Sustainable Development Goals are depicted in the following poster:



Source: Communications materials - United Nations Sustainable Development

To clarify the goals in the poster, the Sustainable development goals are given below:

Goal 1: "End poverty in all its forms everywhere"

Goal 2: "End hunger, achieve food security and improved nutrition and promote sustainable agriculture"

- Goal 3: "Ensure healthy lives and promote well-being for all at all ages"
- Goal 4: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"
- Goal 5: "Achieve gender equality and empower all women and girls"
- Goal 6: "Ensure availability and sustainable management of water and sanitation for all"
- Goal 7: "Ensure access to affordable, reliable, sustainable and modern energy for all"
- Goal 8: "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"
- Goal 9: "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation"
- Goal 10: "Reduce inequality within and among countries"
- Goal 11: "Make cities and human settlements inclusive, safe, resilient and sustainable"
- Goal 12: "Ensure sustainable consumption and production patterns"
- Goal 13: "Take urgent action to combat climate change and its impacts"
- Goal 14: "Conserve and sustainably use the oceans, seas and marine resources for sustainable development"
- Goal 15: "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss"
- Goal 16: "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels"
- Goal 17: "Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development"

(Source: Goals Archive - The Global Goals)

SDGs are global goals but must be addressed at national and local levels and need a strong commitment on the part of all stakeholders. For this, there is a need to mobilize governments, society and to call everyone to adopt these global goals. It was, therefore, decided to mobilize everyone for a decade of action at three levels: global action, local action and people action. The Decade of Action started in 2020 calls people from all walks of life for accelerating sustainable solutions to all the world's biggest challenges — ranging from poverty and gender to climate change, inequality and reducing the economic and social gap by 2030.

WHY IN SCHOOLS?

Students learn about various aspects of the environment such as pollution, climate, forest, biodiversity, environmental health, ecosystem, waste management and sustainability in school subjects through curricular as well as co-curricular activities. It increases their awareness of the value of sustainability and the environment, but it does little to develop the attitude, values and behaviour that would enable them to live more sustainably. It does not ensure the maximum participation of almost all students in sustainable development.

National Education Policy, 2020 focusses on imparting quality education and equipping our children with 21st century skills to make them global citizens. Keeping this in account, the introduction of SDGs in schools will not only help to accomplish what is envisioned in NEP for the students but will also foster these global goals to their family members and society in large. It will inculcate values in young children that will have a positive influence not only on the immediate society but on the world as a whole. They will grow as productive and more conscious, responsible global citizens.

The implementation of SDGs requires efforts for achieving all goals. The requirement for implementation of Goal 4 and Goal 13 are given below:

GOAL	GOAL TITLE	IMPLEMENTATION PLAN
4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	"4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development"
13	Take urgent action to combat climate change and its impacts	"13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning"

So, the implementation of SDGs requires efforts on the part of all the stakeholders. At school level, we need to promote the awareness of sustainable development and sustainable living. It will help children form eco-friendly habits which will reflect in their actions. They will further influence and inspire others to adopt and practice for sustainable development. They will learn to think critically, work in collaboration and find solutions from the means available locally. The activities done in a group will enhance students' social skills and a sense of belongingness. Such activities will help them internalize true happiness. It will also help them to become innovative, creative and changemaker by exploring the solutions. When we are successful in directing the behavior of children at a young age, it will be carried forward forever by the child in her/his actions. It will certainly help us to contribute in achieving the Sustainable development goals.

All the SDGs are mentioned above but keeping the above points in view, only 7 SDGs have been dealt with in the book and activities have been planned to take few steps forward to achieve these goals. This is due to the applicability of objectives and targets of these goals, for which the students can easily perform activities and find solutions.

The Seven goals selected for dealing within the book are:

Goal 2	"End hunger, achieve food security and improved nutrition and promote sustainable agriculture"
Goal 3	"Ensure healthy lives and promote well-being for all at all ages"
Goal 6	"Ensure availability and sustainable management of water and sanitation for all"
Goal 7	"Ensure access to affordable, reliable, sustainable and modern energy for all"
Goal 11	"Make cities and human settlements inclusive, safe, resilient and sustainable"
Goal 12	"Ensure sustainable consumption and production patterns"
Goal 13	"Take urgent action to combat climate change and its impacts"

The Eco Clubs in the schools undertake various activities (such as slogan writing, poster making, bulletin board decoration, plantation drive, debate competition, quiz, etc) to create environmental awareness among the students for protection of the environment and to inculcate environmental values and attitudes among the students. It is also helpful in developing skills in students so that they can contribute to the conservation of the environment. So, it is envisioned that the eco clubs will further take baby steps at the local level to achieve the SDGs at the global level and ensure a sustainable future for mankind.

REFERENCE:

Transforming our world: the 2030 Agenda for Sustainable Development | Department of Economic and Social Affairs (un.org)

2

SUSTAINABLE DEVELOPMENT GOAL 2

2 ZERO
HUNGER



आओ सब खाएं मिल बाँट कर।
भूखा न रहे कोई घर।



SDG 2: ZERO HUNGER

GOAL: End Hunger, Achieve Food Security and improved nutrition and promote sustainable agriculture

SOME OF THE TARGETS TO ACHIEVE THE GOAL

- By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
- By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons
- By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

CHALLENGES

- The biggest challenge of SDG-2 is that it requires complex, interlinked solutions involving different sectors like urbanisation, rural transformation, sustainable agriculture, soil, water and forest conservation, infrastructure and technology development, investment, etc.

HOW TO ACHIEVE THE TARGETS?

- Put the furthest behind first.
- Pave the road from farm to market.
- Reduce food waste.
- Encourage sustainable crops.
- Make nutrition a priority, starting with a child's first 1000 days.

Together we can end hunger, eliminate malnutrition, and build sustainable food systems.

ACTIVITY 2.1: MINDFUL EATING

LET US DO IT TOGETHER

Let us understand what healthy and unhealthy food is.

WHAT DO WE NEED?

Pencil, paper, coloured pencils, chart paper, eraser, sharpener, scale, chalk, duster, blackboard.

NO. OF PARTICIPANTS

The whole class is divided in groups of 5 *Paryavaran Preharis*.

HOW TO DO IT?

Pre-activity Discussion

Paryavaran Snehi will ask *Paryavaran Sanrakshak* about what they had eaten in different meals (breakfast, lunch, evening snacks, dinner, any other time of the day) a day before and what their parents and grandparents had eaten.

Paryavaran Snehi will further inquire if any of the food items discussed are specific to any State in India and discuss the activity with them. Later, *Paryavaran Sanrakshak* will explain this activity to *Bhojan Sanrakshak* (Food and Health Monitor). They will further take this activity with *Paryavaran Preharis* in the class

ACTIVITY

- *Bhojan Sanrakshak* will ask the *Paryavaran Preharis* to draw the food items that they have eaten in different meals on different coloured papers (2 inches X 2 inches).
- The *Paryavaran Prehari* will be asked to paste their smaller pieces on separate big chart paper for different meals e.g. one chart paper will have the heading Breakfast, the other will have a heading Lunch, 3rd one Evening Snacks, 4th Dinner, and the 5th one will be any additional meal at different time of the day.
- The *Bhojan Sanrakshak* will make two chart papers with the palm: **one with thumbs up and the other with thumbs down**.
- Now ask the *Paryavaran Prehari* to write the food items from the chart paper that they have prepared in thumbs up and thumbs down depending upon what they think we should eat as it is **healthy food** and what they should not eat as it is **junk food**.
- The above activity will be repeated for parents and grandparents.

- The *Paryavaran Prehari* will be asked why their food differs from their parents and grandparents.
- Let the *Bhojan Sanrakshak* write their answer on a chart paper/blackboard.

LET US DISCUSS

Paryavaran Snehi will discuss healthy and unhealthy food (from the activity only). Why is the food of parents and grandparents different from theirs? Also, discuss what healthy food the *Paryavaran Preharis* should include in their diet and why?

EXTENSION OF THE ACTIVITY

Trace the map of India on chart paper. Find out if the food items you and your classmates have eaten are specific for a particular state. Draw them in the respective state. Also, find out each state's specialty and write/draw in the particular state on the map of India.



THE NEW ME

Paryavaran Prehari will be able to identify healthy and unhealthy food items.

ACTIVITY 2.2: FOOD ITEM INGREDIENTS

LET US DO IT TOGETHER

Let us know the ingredients of the food that we eat.

WHAT DO WE NEED?

Pencil, paper, coloured pencils, chart paper, eraser, sharpener, scale, chalk, duster, blackboard.

NO. OF PARTICIPANTS

The whole class will be divided into group of 5 *Paryavaran Preharis*.

HOW TO DO IT?

1. Write down the food items from activity 2.1 in the table below.
2. Write the ingredients of each food item against it in the table below.

FOOD ITEM	INGREDIENTS
1. Roti/Chapati	Atta/Flour, Water
2.	
3.	
4.	

LET US DISCUSS

Paryavaran Snehi will discuss the activity. What are the various ingredients used in different food items? Sensitize the students on why we need to save each ingredient.

THE NEW ME

Paryavaran Prehari to understand the importance of the ingredients used in food items.

OR

Activity 2.2 can be in the form of a *Role Play*. Each student can play the role of a food item or an ingredient. Students may enact whatever comes to their mind regarding the item/ingredient they are enacting, keeping in mind the central theme of the role play.



Courtesy : RPVV Sector 10 Dwarka

ACTIVITY 2.3: PLANT AND ITS PARTS USED AS A SOURCE

LET US DO IT TOGETHER

Let us study the plant source and part of the food we eat.

WHAT DO WE NEED?

Pencil, paper, coloured pencils, chart paper, eraser, sharpener, scale, chalk, duster, blackboard.

NO. OF PARTICIPANTS

The whole class is divided into groups of 5 *Paryavaran Prehari*.

HOW TO DO IT?

1. Write down the food items from activity 2.2 in the table below.
2. Write the plant source and plant part of each food item in the table below.

FOOD ITEM	PLANT SOURCE	PLANT PART
1. Roti/Chapati	Wheat	Seed
2.		
3.		
4.		

LET US DISCUSS:

Paryavaran Snehi will discuss the activity. What are the various plant sources and parts of plant in our food items? Sensitize the students regarding the importance of plants and why we need to save the plants.

THE NEW ME

Paryavaran Preharis will develop an understanding of various plants and their parts used for food items.

ACTIVITY 2.4: CONVERTING JUNK FOOD TO HEALTHY FOOD

LET US DO IT TOGETHER

Let us understand what makes food junk and what makes it healthy food.

WHAT DO WE NEED?

Pencil, paper, coloured pencils, chart paper, eraser, sharpener, scale, chalk, duster, blackboard.

NO. OF PARTICIPANTS

The whole class is divided in groups of 5 *Paryavaran Prehari*

HOW TO DO IT?

Discussion before the activity is performed.

1. *Paryavaran Snehi* will explain the activity to *Paryavaran Sanrakshak*, who will further take this activity with *Bhojan Sanrakshak*.
2. *Bhojan Sanrakshak* will ask *Paryavaran Prehari* about the ingredients of junk food, what makes it unhealthy, and how they can make it healthy.
3. *Bhojan Sanrakshak* will list the common junk foods that the class prefers eating.

ACTIVITY

- *Bhojan Sanrakshak* will ask the *Paryavaran Prehari* to draw the food items they prefer eating over healthy food on coloured papers (2 inches X 2 inches).
- The *Paryavaran Prehari* will be asked to draw the items with the labels of the unhealthy food items used in the meal
- Each *Paryavaran Prehari* may be asked to write one replacement for unhealthy food product to make the item healthier e.g eat whole wheat bread instead of white bread.

LET US DISCUSS

Bhojan Sanrakshak will discuss how with simple steps, unhealthy food can be converted into healthy food without compromising eating.

PROJECT 2.1: FROM SEED TO FOOD

LET US DO IT TOGETHER

Let us grow microgreens.

WHAT DO WE NEED?

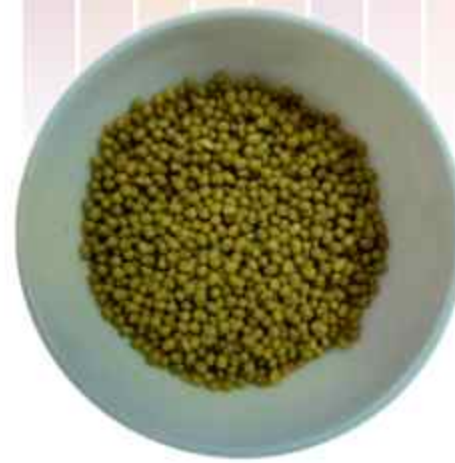
Shallow container/earthen pot/tray, soil, water, spray bottle/mug/glass, healthy moong dal seeds /any other dal seeds, water, and good light.

HOW TO DO IT?

- The seeds may be pre-soaked for two hours before sowing for quick germination.
- **Prepare a container:**
Fill your container (earthen pot/ tray etc.) with about 3/4 of moist soil about 2-3 cm (1 inch) deep. Put some moistened paper towel or muslin cloth on the bottom of a tray (if one with gaps is used) to stop the soil from falling through. Add some compost/manure, which can be prepared in school/home.
- **Sow the seeds:**
Sprinkle some seeds over the soil and press in lightly. For tiny seeds, evenly spread a thin layer of sieved compost/manure over the top so they are covered and saved from birds and insects.
- Lightly water the container using a spray bottle/mug/glass. Make sure you only sprinkle water and not pour water. This prevents the dislodging of the seeds.
- Place in a warm spot.
- Water regularly/ every day as needed. Check soil moisture by touching it with your fingers. Soil should always be kept moist. The seeds should never dry out. Avoid overwatering, as you will drown the seeds.
- To create a warm, humid environment for the seeds to germinate, cover the seeds with a lid with small holes or put a clear plastic bag over the top of the tray with tiny holes in the top for airflow.



A



B



C



D

MICROGREENS ARE SPROUTING OF MOONG DAL AFTER ONE WEEK.

HOW TO USE?

1. Cut into small pieces, knead in the atta, and make chapati.
2. Eat as a salad.
3. Make vegetables.
4. Any other way that you can think of and like?

LET US DISCUSSION:

How crops are grown and the Nutritional health benefits.

Paryavaran Snehi will discuss the concept of how crops are grown with the *Paryavaran Sanrakshaks* who will explain the activity and discuss with *Bhojan Sanrakshak* and *Harit Sanrakshak*.

GAME 2.1: FUN GAME

Paryavaran Snehi to explain the game to *Paryavaran Sanrakshak*, who will explain it to *Bhojan Sanrakshak*.

Bhojan Sanrakshak will take the fun game with *Paryavaran Preharis* learning the seasonal fruits and vegetables

- Each *Paryavaran Prehari* will write their name and the fruit and vegetable they want to be on the blackboard.
- The *Bhojan Sanrakshak* will write in which season (Summer, Winter, Autumn/Jan-March, April-June, etc/all year round) they eat this fruit/vegetable.

LET US DISCUSS:

Bhojan Sanrakshak will discuss the concept of seasonal fruits and vegetables (why some fruits and vegetables are eaten only in one particular season, why some are eaten all year round), how they taste different if taken in the off-season and why (lose their nutritional value).

GAME 2.2: CROSSWORD

Choose 10 correct words from the crossword given below.

Q	T	Y	C	F	D	C	H	S	Z	A	C
C	O	M	P	O	R	F	R	U	I	T	O
E	K	W	G	O	A	D	U	R	V	N	M
E	L	A	P	D	B	N	S	O	J	F	P
T	P	S	P	R	O	U	T	S	R	A	O
Z	S	T	F	W	H	U	N	G	E	R	S
H	E	A	L	T	H	Y	L	H	D	M	T
E	E	G	K	I	F	W	Q	T	E	E	A
O	D	E	D	F	J	U	K	S	M	R	P
D	R	O	U	G	H	T	I	H	G	W	E

Q	T	Y	C	F	D	C	H	S	Z	A	C
C	O	M	P	O	R	F	R	U	I	T	O
E	K	W	G	O	A	D	U	R	V	N	M
E	L	A	P	D	B	N	S	O	J	F	P
T	P	S	P	R	O	U	T	S	R	A	O
Z	S	T	F	W	H	U	N	G	E	R	S
H	E	A	L	T	H	Y	L	H	D	M	T
E	E	G	K	I	F	W	Q	T	E	E	A
O	D	E	D	F	J	U	K	S	M	R	P
D	R	O	U	G	H	T	I	H	G	W	E

FOOD, HUNGER, HEALTHY, WASTAGE, FARMER, DROUGHT, SPROUTS, SEED, FRUIT, COMPOST

GAME 2.3: EATING HABITS

OBJECTIVES OF THE GAME

1. To make *Paryavaran Prehari* respect food.
2. To bring consciousness among *Paryavaran Prehari's* regarding food wastage.
3. To make *Paryavaran Prehari* aware of eating healthy food.
4. To inculcate values related to zero hunger and cleanliness.

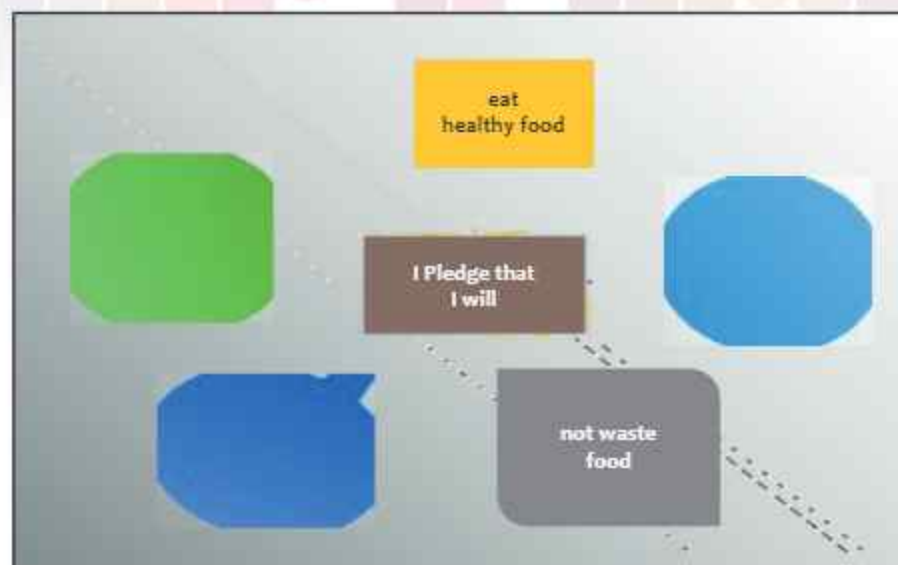
RULES OF THE GAME

1. Two to four players can play the game.
2. Players will roll the dice.
3. If any player gets 6 on the dice, the player will keep the coin in box 1.
4. Subsequently, the player will move the coin in the box according to the number on the dice.
5. The player will play according to the instructions given in each box.
6. Player who reaches the end first is the winner.

After the game, the players will discuss the text boxes and what they have learnt from the game.

8		9		24		25		40		41	
Never waste food [Go to 10]		Eating chocolates and chips [Restart]		Washing hands before eating [Go to 27]		Chew food properly [Go to 32]		Reusing leftover food [Go to 42]			
7		10		23		26		39		42	
6		11		22		27		38		Lack of vegetables in the diet 43 [Go to 38]	
Licking fingers while eating [Restart]		12		21		28		37		Reusing leftover food 44 [Go to 47]	
5		Over eating [Go to 10]		Eating late in the night/odd hours [Go to 16]		Eating tinned and processed food [Go to 21]		Throwing away left over food [Go to 6]		45	
4		13		20		29		36		Taking more food in plate than can eat 46 [Go to 13]	
3		Eating seasonal fruits and vegetables 14 [Go to 19]		19		30		35		47	
Eating healthy food [Go to 4]		15		Eating sprouted moong dal in the breakfast 18 [Go to 26]		Long nails [Go to 15]		34		Have regular family meals WOW!	
2		16		17		31		Washing fruits before eating [Go to 37]		48	
START		Drinking aerated beverages [Restart]		32		33					
1											

PLEDGE



Paryavaran Snehi to ask the *Paryavaran Sanrakshak* to write at least one point to achieve the goal Zero Hunger. *Paryavaran Prehari* will write his/her viewpoints/keywords on the blackboard (example given).

Paryavaran Sanrakshak will consolidate and make the pledge. The pledge is to be displayed in the classroom and taken in the assembly as per the schedule given below:

Day	Pledge
Monday	Zero hunger pledge (SDG 02)
Tuesday	Good health & wellbeing pledge (SDG 03)
Wednesday	Clean water and sanitation pledge (SDG 6)
Thursday	Affordable and clean energy pledge (SDG 7)
Friday	Sustainable cities pledge (SDG 11)
Saturday	Responsible consumption & production pledge (SDG 12) or Climate action pledge (SDG 13)

SUSTAINABLE DEVELOPMENT GOAL 3



स्वास्थ्य के प्रति लापरवाही
शरीर को देती है बीमारी



SDG 3: GOOD HEALTH AND WELL BEING

GOAL: Ensure healthy lives and promote well-being for all at all ages.

SOME OF THE TARGETS TO ACHIEVE THE GOAL

- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
- By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
- By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
- Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
- Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
- By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

HOW TO ACHIEVE THE GOAL?

- By understanding the early signs of any health issues and taking proper measures
- By controlling pollution
- By properly administering vaccines and medicines for the communicable and non-communicable diseases
- By increasing trained health workforce

ACTIVITY 3.1: DOCTOR KITCHEN

LET'S DO IT TOGETHER

- *Paryavaran Snehi* will explain to *Paryavaran Sanrakshak* who in turn will explain to *Bhojan and Swasthya Sanrakshak* that in olden days people did not rush to the doctor's clinic or hospitals for treatment of simple ailments. Instead, the kitchen used to be the clinic with grandparents being the doctor.
- *Bhojan and Swasthya Sanrakshak* will be told about the commonly available herbs and spices in the kitchen that can be used to cure simple problems and give examples: ginger and honey for cold, haldi and milk for headache and cold, aloe vera for small cuts and burns etc

WHAT DO WE NEED?

Notebook, pencil, pen, eraser and ruler

HOW WE DO IT?

Bhojan and Swasthya Sanrakshak to encourage *Paryavaran Prehari* to find more such home remedies from their parents/grandparents and write them down in the following format:

S. No.	Name of the herb/spice in English/Hindi	What is it used for?	How to use it?

Bhojan and Swasthya Sanrakshak will discuss about the simple home remedies and display it on a chart paper in the classroom. Every Indian kitchen has many herbs and spices that help cure simple ailments like cough, cold, headache, small burns etc. Our grandparents and great grandparents knew about these magical herbs and spices and could easily cure simple ailments at home.

THE NEW ME

- *Paryavaran Preharis* will realise that "My Health is my Responsibility"
- *Paryavaran Preharis* will understand that mild illnesses can be addressed through simple home remedies.

ACTIVITY 3.2: COOKING WITHOUT FLAME

LET'S DO IT TOGETHER

Paryavaran Snehi will explain to *Paryavaran Sanrakshak* about the food preparation without using flame.

WHAT DO WE NEED?

Children will be asked to bring the ingredients as per the dishes to be made like fruits, sprouts etc.

HOW WE DO IT?

Paryavaran Sanrakshak will explain Table 1 to *Bhojan and Swachhta Sanrakshak*. They will ask the *Paryavaran Preharis* to make group of 4-5 and select any one dish from Table 1. *Paryavaran Prehari* will prepare the dish and share with each other.

TABLE 1

S. NO.	DISH	INGREDIENTS	NUTRITIVE VALUE
01	Fruit Chaat		Minerals, Fibres
02	Sprout chaat		Minerals, Fibres
03	Salads		Minerals, Fibres
04	Sandwiches		Carbohydrates, Mineral, Protein
05	Dahi Puri		Calcium, Fat, Carbohydrates
06	Fruit Slush		Minerals/Vitamins
07	Smoothies		Minerals/Vitamins
08	Bhel Puri		Vitamin C, Protein, Fat, Carbohydrates

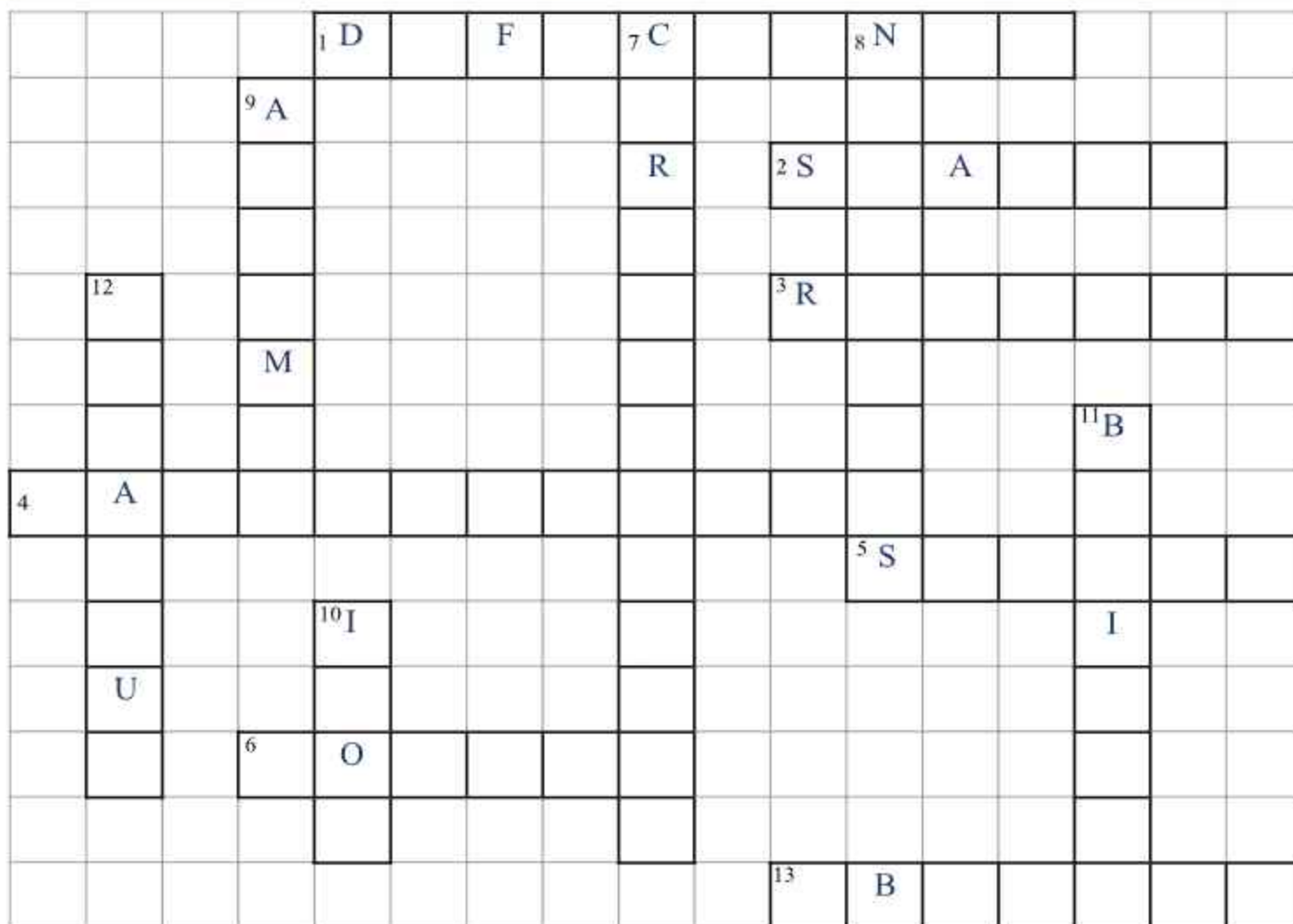
Note: This activity can also be coordinated with tree/plant birthday (SDG 13- Climate Action).

THE NEW ME

After the activity, *Paryavaran Preharis* will learn to feed themselves in the absence/ill health of mother/elderly at home. This will make them responsible and independent and also sensitize them towards nutrition.

ACTIVITY 3.3: CROSSWORD

LET'S UNEARTH, NUTRIENTS AND DEFICIENCY DISEASES FROM THE CLUES GIVEN



#ACROSS

1. Diseases caused by lack of nutrients in the diet (10)
2. Rice and potato are rich in this type of carbohydrate (6)
3. Deficiency disease of bones making them becomes soft and bent (7)
4. Diet with all the nutrients in right quantity along with adequate amount of roughage and water (8, 4)
5. Diseases in which gums bleed (6)
6. Iodine deficiency disease (6)
13. Accumulation of excessive fat in the body (7)

#DOWN

7. Foods rich in sugars, starch and cellulose (13)
8. Collective term for carbohydrates, fat, proteins, minerals, vitamins and water (9)
9. The disease caused by deficiency of iron in diet (7)
10. Green leafy vegetables and apples are rich in this mineral (4)
11. Deficiency disease caused due to the lack of Vitamin B1 in the diet (8)
12. A PEM disorder caused due to deficiency of protein & carbohydrates (8)

SOLUTIONS

ACROSS	DOWN
1. DEFICIENCY	7. CARBOHYDRATES
2. STARCH	8. NUTRIENTS
3. RICKETS	9. ANAEMIA
4. BALANCED DIET	10. IRON
5. SCURVY	11. BERIBERI
6. GOITRE	12. MARASMUS
13. OBESITY	

ACTIVITY 3.4: DEVELOPING A HERBAL GARDEN

LET'S DO IT TOGETHER

Paryavaran Snehi will explain to *Paryavaran Sanrakshak* about the benefits of herbal plants. They will also identify space in the school premises to develop a herbal garden. *Paryavaran Snehi* will help procure these plants. *Paryavaran Sanrakshak* along with *Bhojan* and *Swasthya Sanrakshak* will develop the herbal garden.

S.NO.	NAME OF THE HERB	BENEFITS
01	<i>Aloe vera</i> (Gwarpatha)	Treatment of minor burns, skin abrasions and irritations.
02	<i>Ocimum</i> (Tulsi)	Immunity booster, improves digestion, antistress qualities.
03	<i>Trachyspermum</i> (Ajwain)	Gives resistance against common cold and fever. Relieves indigestion. It has antibacterial and antifungal properties.
04	<i>Murraya</i> (Curry patta)	Good for eyes, hair, skin and oral health. It is also an antioxidant and analgesic.
05	<i>Mentha</i> (Mint/Pudina)	Flavoring tea, curries and other dishes, breath freshener. Treat stomach ache etc.

WHAT DO WE NEED?

Herbal plants

HOW TO DO IT?

Bhojan and *Swasthya Sanrakshak* will explain the benefits of the selected herbs to *Paryavaran Preharis*. They will grow the herbs in the pre-selected space.

LET US DISCUSS

Having a herbal garden in the school is beneficial to students in many ways. *Paryavaran Preharis* will be able to identify herbal plants and understand their common uses. They will realise that simple ailments can be treated with different parts of the herbal plants. It will connect them to the world of herbs.

THE NEW ME

Paryavaran Preharis will realise that “my health is my responsibility”.

PROJECT 3.1: HEALTH CHECK

Paryavaran Snehi will talk to *Paryavaran Sanrakshak* about the importance of health and role of vaccination in preventing diseases. *Paryavaran Snehi* will share a questionnaire with *Paryavaran Sanrakshak*. *Paryavaran Sanrakshak* will discuss the questionnaire containing basic health related information about the students with *Bhojan* and *Swachhta Sanrakshak*.

They will talk to the *Paryavaran Preharis* of the class and ask them to fill the given questionnaire taking help from their parents. The time of one week to be given for filling the questionnaire. *Bhojan* and *Swachhta Sanrakshak* will compile the data from the filled questionnaire.

Class and Section	Total Number of <i>Paryavaran Preharis</i> in Class	Number of <i>Paryavaran Preharis</i> Vaccinated for Hepatitis B	Number of <i>Paryavaran Preharis</i> Vaccinated against other diseases	Number of <i>Paryavaran Preharis</i> spending more than 1-2 hours on TV/Phone	Number of <i>Paryavaran Preharis</i> eating food from outside for more than once a week

After collecting data, *Paryavaran Snehi* will analyse and appreciate students for good healthy habits and explain the consequences of drinking less water, watching TV/Video/Phone for long hours and drinking aerated beverages etc. Parents can be made aware about the healthy habits and how to help children in adopting healthy habits on the day of PTM. Parents will be made aware about the importance of vaccination against various communicable diseases and encouraged to follow vaccination practices.

QUESTIONNAIRE

Question 1: Name

Question 2: Gender

- ☐ Male
- ☐ Female

Question 3: Date of Birth

DD	MM	YYYY
----	----	------

Question 4: Over the last one/two years how was your health?

- ☐ Excellent
- ☐ Very Good
- ☐ Fairly Good
- ☐ Not Good at all

Question 5: Do you have any long-term illness or health problems affecting your work or studies?

- ☐ Yes
- ☐ No
- ☐ Do Not Know

Question 6: Do you have a clean drinking water facility at school and home?

- ☐ Yes
- ☐ No

Question 7: Name the disease/s against which you have been vaccinated.

Question 8: Are you vaccinated for Hepatitis B?

- ☐ Yes
- ☐ No

Question 9: How often do you take aerated drinks?

- ☐ Daily
- ☐ Alternate day
- ☐ Once a week
- ☐ Occasionally
- ☐ Never

Question 10: How often do you eat food from outside?

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Occasionally
- ☐ Never

Question 11: Do you wash your hands every time before eating?

- ☐ Always
- ☐ Often
- ☐ Occasionally
- ☐ Never

Question 12: Do you wash your hands/feet every time you come from outside?

- ☐ Always
- ☐ Often
- ☐ Occasionally
- ☐ Never

Question 13: Are you happy about your health status?

- ☐ Yes
- ☐ No
- ☐ Not sure

Question 14: How many glasses of water do you drink daily?

- ☐ 2-3 Glasses
- ☐ 4-5 Glasses
- ☐ 7-8 Glasses
- ☐ More than 8 Glasses

Question 15: How many hours do you spend on TV/Phone/Computer?

- ☐ 1-2 Hours
- ☐ 2-3 Hours
- ☐ 3-4 Hours
- ☐ More than 4 Hours

PLEDGE



Paryavaran Snehi to ask the *Paryavaran Sanrakshak* to write at least one point to achieve the goal of Good Health and Well-being. *Paryavaran Prehari* will write his/her viewpoints/keywords on the blackboard (example given).

Paryavaran Sanrakshak will consolidate and make the pledge. The pledge is to be displayed in the classroom and taken in the assembly as per the schedule given below:

Day	Pledge
Monday	Zero hunger pledge (SDG 02)
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ପାନୀୟ ଜଳ



ଶୁଦ୍ଧ ଜଳ



ଦିଏ ଉତ୍ତମ ଫଳ ମିଳେ
ଯଦି ଏ ଅମୃତ ପିଇା ଲା



GOVT e

DEPARTMENT

SDG 6: CLEAN WATER AND SANITATION

GOAL: Ensure availability and sustainable management of water and sanitation for all

SOME OF THE TARGETS TO ACHIEVE THE GOAL

- By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
- Support and strengthen the participation of local communities in improving water and sanitation management

HOW TO ACHIEVE THE TARGETS?

- By reducing water pollution
- By reducing use of water in homes, agriculture, industry etc.
- By adopting measures to conserve water like RWH (Rain Water Harvesting), restoring water bodies and water related ecosystems.

ACTIVITY 6.1: LET'S CREATE A WATER DIARY

LET US DO IT TOGETHER

Paryavaran Snehi will explain *Jal Sanrakshaks* of all the classes to estimate the approximate water consumption in the school as well as at home with the help of *Paryavaran Prehari*. *Paryavaran Snehi* will also explain the purpose of doing this activity.

WHAT DO WE NEED?

Diary, pen, colour pencil, scale.

NUMBER OF PARTICIPANTS

Approximately 40 (Class size)

HOW TO DO IT?

Water diary table 1 to be shared with all *Paryavaran Preharis* of the class.

All the students will be asked by *Jal Sanrakshaks* to fill the approximate water consumed per day for a week.

LET US DISCUSS

Each *Paryavaran Prehari* will calculate the total water consumed in a day as well as in seven days.

Paryavaran Prehari will compare their observations and discuss the following -

- Daily activity in which student consumed minimum/maximum water. *Jal Sanrakshak* will fill up table 2 as per *Paryavaran Prehari's* observations.
- They will discuss ways to minimize the water consumption.

- c. The *Paryavaran Prehari* who are using minimum water are asked to share their practice with rest of the class as how they are able to perform their daily activities with less water.
- d. *Paryavaran Prehari* who are comparatively using more water will write about the measures they will adopt to reduce water consumption.

Note: The *Paryavaran Preharis* who have used minimum water in the mentioned activities may be given blue ribbon/star.

THE NEW ME

After the activity, all the *Paryavaran Preharis* will adopt various ways to conserve water – our precious resource.

TABLE 1: WATER DIARY

Name of the student: _____

NAME OF ACTIVITY	AMOUNT OF WATER CONSUMED (IN LITRES)						
	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
Drinking							
Hand wash							
Bathing							
Brushing							
Toilet							
Washing clothes of self							
Any other							
Total water consumed per day							
Total water consumed in 7 days = litres							

TABLE 2: MINIMUM AND MAXIMUM CONSUMPTION OF WATER

NAME OF ACTIVITY	AMOUNT OF MINIMUM WATER CONSUMED (IN LITRE)	NAME OF STUDENT	AMOUNT OF MAXIMUM WATER CONSUMED (IN LITRE)	NAME OF STUDENT
Drinking				
Hand wash				
Bathing				
Brushing				
Toilet				
Washing clothes of self				
Any other				

ACTIVITY 6.2: LADDER GAME

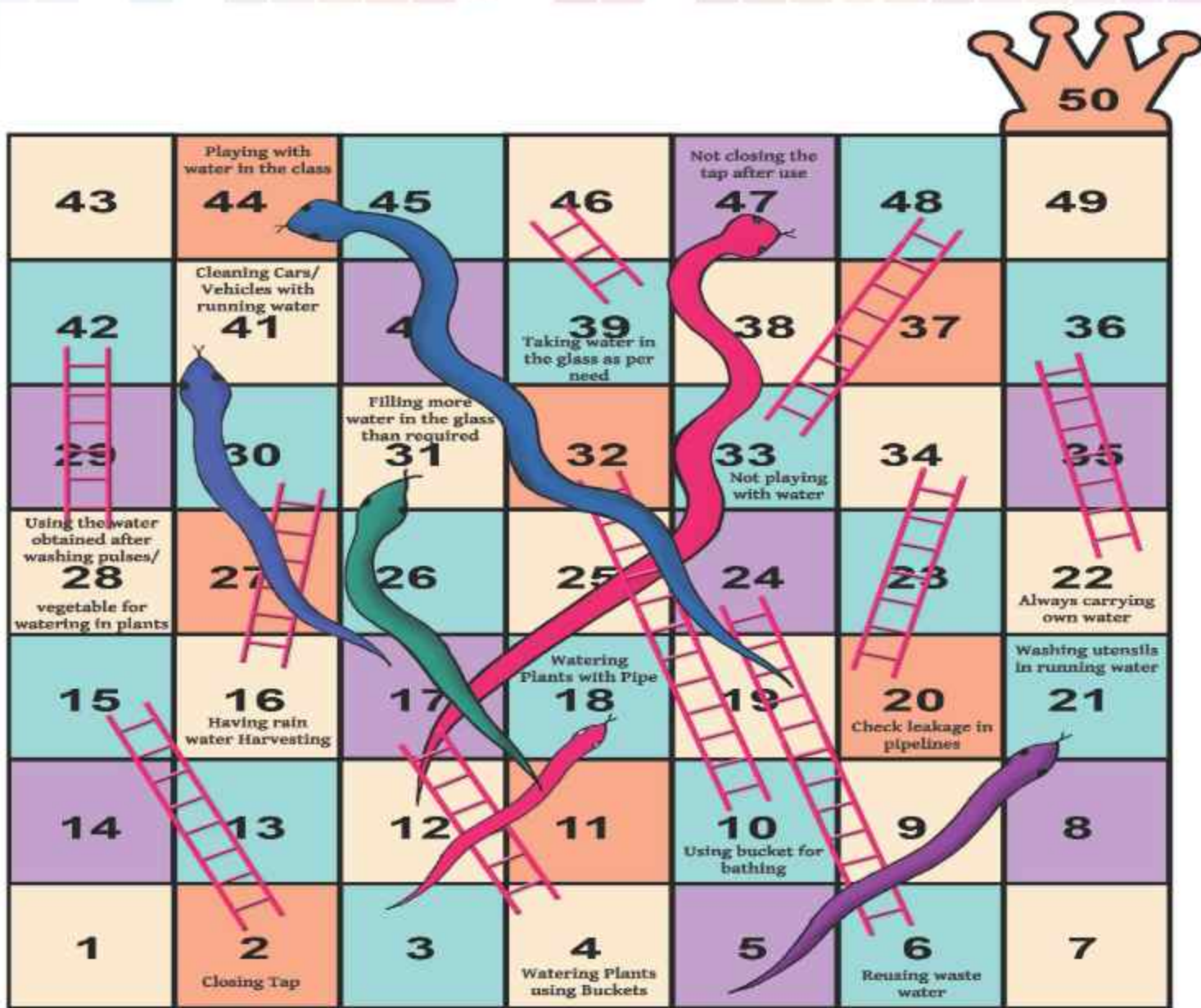
INSTRUCTIONS FOR THE ACTIVITY/GAME

OBJECTIVE OF THE ACTIVITY/GAME

1. To make *Paryavaran Prehari*, aware about the judicious use of water.
2. To bring consciousness among *Paryavaran Preharis* regarding water conservation and minimizing water wastage.
3. To sensitize *Paryavaran Preharis* to save water.
4. To develop the habit of turning off the tap when not in use.

RULES OF THE ACTIVITY/GAME

1. Two to four players can play the game.
2. Players will roll the dice.
3. If any player gets 6 on the dice, the player will keep the token in box 1.
4. Subsequently the player will move the token in the box according to the number which comes on the dice.



ACTIVITY 6.3: JUMBLED WORDS

Sources of Water

Arrange the given alphabets to form the correct word.

1	LWEL	<div></div>	<div></div>	<div></div>	<div></div>		
2	EAS	<div></div>	<div></div>	<div></div>			
3	AIRN	<div></div>	<div></div>	<div></div>	<div></div>		
4	NACLA	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	
5	VIRRE	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	
6	TSMRAE	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
7	EANCO	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	
8	ONDP	<div></div>	<div></div>	<div></div>	<div></div>		

WELL SEA RAIN CANAL RIVER STREAM OCEAN POND

ACTIVITY 6.4: CONSERVE WATER

LET US DO IT TOGETHER

Paryavaran Snehi will explain *Paryavaran Sanrakshaks* about the details of activity sheet provided. *Paryavaran Sanrakshaks* will share the details of activity indicator sheet with *Jal Sanrakshak*. *Jal Sanrakshak* will share the sheet with all *Paryavaran Preharis* by pinning it up on class notice board.

WHAT DO WE NEED?

Activity sheet, pen, pencil, eraser.

NUMBER OF PARTICIPANTS

Approximately 40 (Class size)

HOW TO DO IT?

Jal Sanrakshak will pin up the indicator sheet on the class notice board and each child will be asked to note all the points and tick against the points. *Paryavaran Preharis* will give a star to themselves.

THE NEW ME

After the activity, all the *Paryavaran Preharis* will adopt various ways to conserve water – our precious resource.

INDICATOR ACTIVITY SHEET

1. I keep water container regularly for birds.
2. I use one bucket of water for bathing.
3. I do not use cooler.
4. I use cooler only for 3-4 hours in summer.
5. I offer water to guests with half-filled glass and refill it only if they ask for more.

6. I suggest ways to my mother about saving water by reusing it.
7. I reuse my glass to drink water throughout the day to avoid washing of multiple glasses.
8. I do not throw leftover water from my water bottle, rather use it for other purposes.
9. I do not brush my teeth with running water.
10. I reuse water after washing vegetables and fruits for watering my plants.

SCORE CARD

- Four stars or less - You need to be more cautious and learn about water conservation.
- Five - Eight stars - You are doing good but more efforts are required.
- Nine or more stars - Excellent! Keep doing the same and do promote your best practices with your peer.

PROJECT 6.1: CHECKLIST FOR SCHOOL WATER, SANITATION & HYGIENE FACILITIES

LET US DO IT TOGETHER

Paryavaran Snehi will explain about the project and how to fill the checklist to *Jal Sanrakshak*.

WHAT DO WE NEED?

A printed checklist, pen, pencil, eraser

NO. OF PARTICIPANTS

Five *Paryavaran Preharis* in each group.

HOW TO DO IT?

One printed checklist is to be given to each group. *Jal Sanrakshak* will explain to *Paryavaran Preharis* about the activity.

CHECKLIST FOR WATER (W) / SANITATION (S) / HYGIENE (H)

W1. What is the main source of drinking water provided in the school? (Check one most frequently used)

- ☐ Piped (Jal Nigam)
- ☐ Tube well/Bore well
- ☐ Tanker truck
- ☐ Purified Water/RO
- ☐ Any other

W2. Is drinking water from source currently available at the school?

☐ Yes ☐ No

W3. Is drinking water accessible to the youngest children of the school?

☐ Yes ☐ No

W4. Are *Paryavaran Preharis* bringing water from home?

☐ Yes ☐ No

W5.

Total number of
Paryavaran Preharis in
a group_____.

Number of *Paryavaran*
Preharis who bring water
bottle _____.

Number of *Paryavaran*
Preharis who do not bring
water bottle _____.

S1. Number of toilets in school premises_____.

S2. Are toilets available for all groups of students (Boys/Girls/CWSN)?

☐ Yes ☐ No

S3. Number of toilets for each group (functional/non-functional)

Groups	Functional	Non-Functional	Total
Staff (Male)			
Staff (Female)			
Students (Boys)			
Students (Girls)			
CWSN Students			
Visitors/Workers			

S4. Types/Number of toilet seats in school premises.

Western Seat _____ Indian Seats _____ Urinal _____

H1. Are there hand washing facilities at the school?

☐ Yes ☐ No

H2. What is currently available at the hand washing facilities?

- ☐ Water & Soap
☐ Water only
☐ Soap only
☐ Neither water nor soap

H3. Number of Paryavaran Preharis who wash hands before having food in recess.

Total number of Paryavaran
Preharis in a
group _____

Number of Paryavaran
Preharis who wash
hands _____

Number of Paryavaran
Preharis who do not wash
hands _____

H4. Is sanitizer available in school at appropriate places?

☐ Yes ☐ No

H5. Number of Paryavaran Preharis who wear mask when they are suffering from cold or cough.

Total Number of Paryavaran
Preharis in a
group _____

Number of Paryavaran
Preharis who wear
mask _____

Number of Paryavaran
Preharis who do not wear
mask _____

Jal Sanrakshak of each class will collect the data from each group and *Paryavaran Snehi* will help the *Jal Sanrakshak* to consolidate the data collected. Data will be analysed with respect to water, sanitation and hygiene. *Paryavaran Snehi* will discuss and ask for suggestions for improvement of the facilities available in the school. Estate manager may be involved in the discussion and feedback.

PLEDGE



Paryavaran Snehi to ask the *Paryavaran Sanrakshak* to write at least one point to achieve the goal of Clean Water & Sanitation. *Paryavaran Prehari* will write his/her viewpoints/keywords on the blackboard (example given).

Paryavaran Sanrakshak will consolidate and make the pledge. The pledge is to be displayed in the classroom and taken in the assembly as per the schedule given below:

Day	Pledge
Monday	Zero hunger pledge (SDG 02)
Tuesday	Good health & wellbeing pledge (SDG 03)
Wednesday	Clean water and sanitation pledge (SDG 6)
Thursday	Affordable and clean energy pledge (SDG 7)
Friday	Sustainable cities pledge (SDG 11)
Saturday	Responsible consumption & production pledge (SDG 12) or Climate action pledge (SDG 13)

5

SUSTAINABLE DEVELOPMENT GOAL 7

7 AFFORDABLE AND
CLEAN ENERGY



यदि बचाना है खर्चा
तो संरक्षित करें ऊर्जा



Mahak & Vanshika, IX C, Balwant Rai Mehta
Vidya Bhawan Sr. Sec. School, Lajpat Nagar

SDG 7: AFFORDABLE AND CLEAN ENERGY

GOAL: Ensure access to affordable, reliable, sustainable and modern energy for all

SOME OF THE TARGETS TO ACHIEVE THE GOAL

- By 2030, ensure universal access to affordable, reliable and modern energy services
- By 2030, increase substantially the share of renewable energy in the global energy mix
- By 2030, double the global rate of improvement in energy efficiency
- By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

HOW TO ACHIEVE THE TARGETS

- Use solar energy sources and solar technologies- radio, charger, lights etc.
- Avoid the use of wood and coal for generating heat.
- Switch off and unplug appliances at the socket.
- Turn off the lights/fans when not in use.
- Don't use multiple devices at the same time.
- Buy rechargeable electronics. Don't buy or use one-use batteries.

ACTIVITY 7.1: WORD SEARCH

LET US DO IT TOGETHER

To identify the various sources of energy from the given grid.

HOW TO DO IT?

Paryavaran Snehi to instruct *Paryavaran Sanrakshak* to identify sources of energy from the grid. Once identified from the grid *Paryavaran Sanrakshak* will conduct this activity with *Paryavaran Prehari*.

R	E	N	E	W	A	B	L	E
H	A	Q	W	E	R	T	A	N
Y	S	D	D	N	I	W	M	E
D	P	O	W	E	R	U	R	R
R	D	F	L	T	O	H	E	G
O	I	H	I	A	I	N	H	Y
L	K	C	V	U	R	M	T	M
B	I	O	M	A	S	S	O	I
A	S	D	F	G	H	Y	E	J
Z	X	C	V	B	N	T	G	K

Paryavaran Sanrakshak will discuss why they are not able to identify certain sources which are commonly used these days.

Note: *Paryavaran Preharis* will be able to locate only renewable sources as non-renewable ones will extinct with time.

Energy is mainly divided into two sources:

Renewable Energy: Energy which is derived from a resource that cannot be depleted. For example – solar, biomass, hydro, geothermal, and wind energy. Non- Renewable Energy: Energy that do not renew themselves for a long period of time. For example – coal, gas, petrol, wood etc.

THE NEW ME

The *Paryavaran Preharis* will be able to identify the sources of energy.

ANSWERS

R	E	N	E	W	A	B	L	E
H	A	Q	W	E	R	T	A	N
Y	S	D	D	N	I	W	M	E
D	P	O	W	E	R	U	R	R
R	D	F	L	T	O	H	E	G
O	I	H	I	A	I	N	H	Y
L	K	C	V	U	R	M	T	M
B	I	O	M	A	S	S	O	I
A	S	D	F	G	H	Y	E	J
Z	X	C	V	B	N	T	G	K

Renewable, Hydro, Biomass, Energy, Solar, Geothermal, Wind, Power

ACTIVITY 7.2: ENERGY CONSERVATION

LET US DO IT TOGETHER

Find the way to reduce energy consumption by adopting right practices

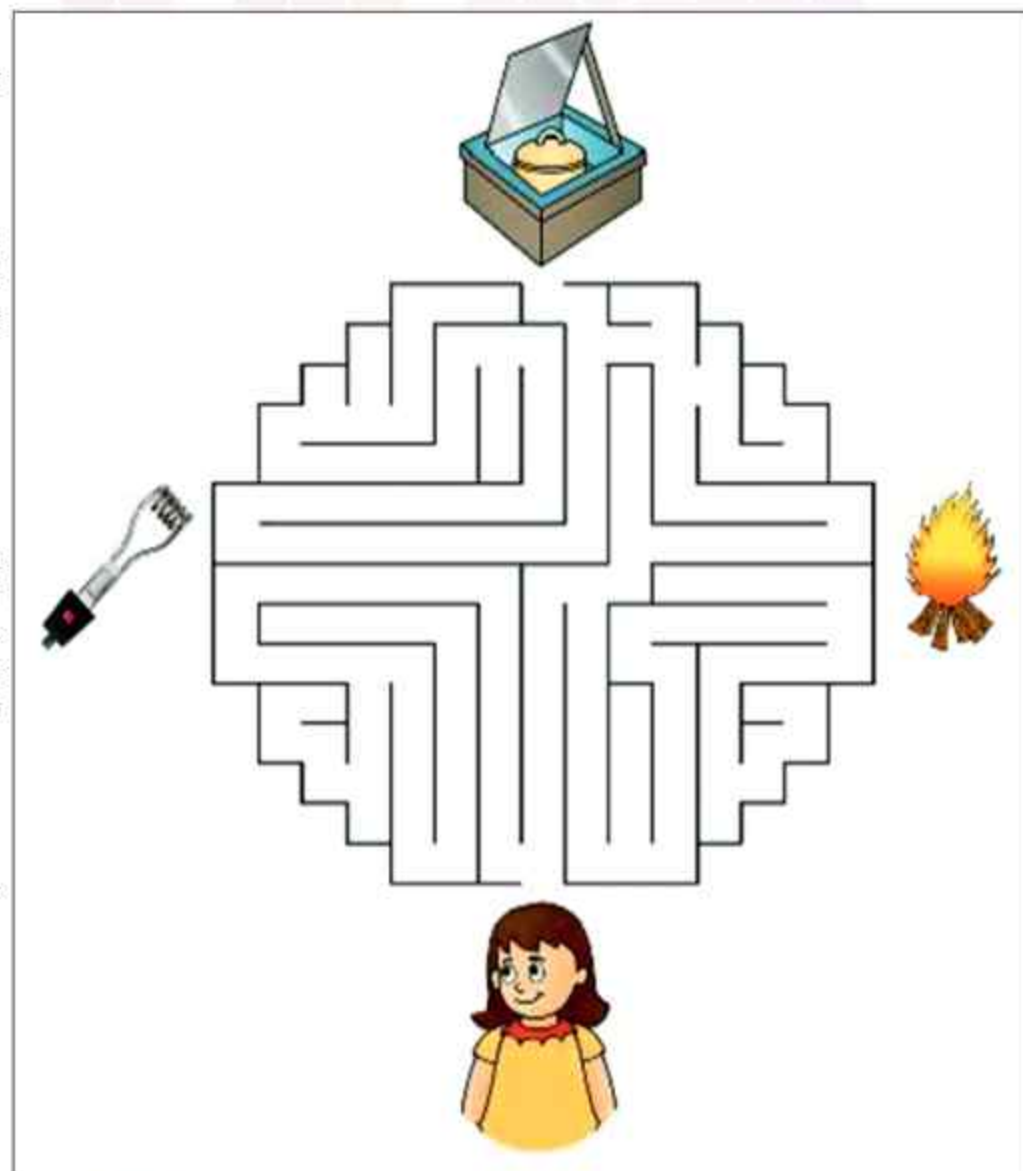
HOW TO DO IT?

Paryavaran Snehi to instruct *Paryavaran Sanrakshak* to find the correct path. Once identified *Paryavaran Sanrakshak* will conduct this activity with *Urja Sanrakshak* who will conduct this activity with *Paryavaran Prehari*.

Urja Sanrakshak (Energy Monitor) to display the picture on the class bulletin boards and *Paryavaran Preharis* to identify the path towards the good practice. The image showcases practices adopted by us on daily basis. The open end shows the good ones and the dead ends would represent bad practices that one need to discontinue.

THE NEW ME

Paryavaran Prehari will be able to identify the right practices to reduce energy consumption.



ACTIVITY 7.3: FIND THE DIFFERENCE

LET US DO IT TOGETHER

To identify energy-efficient practices that can be adopted in the classrooms/ homes.

HOW TO DO IT?

Paryavaran Snehi to instruct *Paryavaran Sanrakshak* to find the difference between the two pictures of the classroom setting for identifying energy efficient practices. Once identified *Paryavaran Sanrakshak* will conduct this activity with *Urja Sanrakshak*. *Urja Sanrakshak* (Energy Monitor) to display the pictures of two classrooms on the class bulletin boards and motivate *Paryavaran Preharis* to identify energy-efficient practices that can be adopted in their classrooms/ homes



Picture 1

Picture 2

Energy (Classroom Setting)

Sr. No.	Column A	Column B
1.	Incandescent Bulbs	CFL Bulbs
2.	The aluminum pane of the window	Glass panes window
3.	Closed window	Open window
4.	Tubelight being ON	Tubelight being OFF
5.	No trees around the classroom	Two trees visible from the window
6.	Blank walls	Educative posters on energy conservation on the walls
7.	Table fan plugged in even when not in use	Plugged out since not in use

THE NEW ME

Paryavaran Preharis will be able to identify energy efficient practices that should be adopted on regular basis.

ACTIVITY 7.4: JUMBLED WORDS (ALTERNATIVE SOURCES OF ENERGY)

LET US DO IT TOGETHER

To know about the alternative sources of energy by rearranging the words.

HOW TO DO IT?

Paryavaran Snehi to instruct *Paryavaran Sanrakshak* to find the correct words. Once unjumbled *Paryavaran Sanrakshak* will conduct this activity with *Urja Sanrakshak* who will conduct this activity with *Paryavaran Preharis*.

1	E O A C N	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2	W T R E A	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
3	N D W I	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
4	B I S O S A M	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	T E O G E R H A M L	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	L O S R A	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
7	L E C R N A U	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8	D I T L A	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

OCEAN WATER WIND BIOMASS GEOTHERMAL SOLAR NUCLEAR TIDAL

THE NEW ME

Paryavaran Preharis will be able to identify the available alternate sources of energy.

PROJECT 7.1: BE AN ENERGY WARRIOR

LET US DO IT TOGETHER

To explore the energy efficient appliances available in the market to become an energy warrior.

NO. OF PARTICIPANTS

This activity can be done individually as well as in groups.

TYPE OF ACTIVITY

Outdoor

WHAT TO DO?

Paryavaran Snehi will explain *Paryavaran Sanrakshak* on how to conduct the market survey. Once done *Paryavaran Sanrakshak* will instruct *Urja Sanrakshak* who will conduct this activity with *Paryavaran Preharis*. *Urja Sanrakshak* will explain *Paryavaran Preharis* on how to plan and buy a new electronic appliance.

The cost of the product is the sum of

- Initial purchase price
- Repairs and maintenance
- Electricity consumption of the appliance

So, while buying an appliance apart from the essential basic features always consider the energy consumption.

Now, start by selecting an appliance.

- Visit a neighbouring market.

- Check for the various brands available.
- Collect the information as per the table given below.
- After filling in the information, calculate the actual cost of the appliance.
- The last column of the table will help in finding out which appliance would be the best buy.

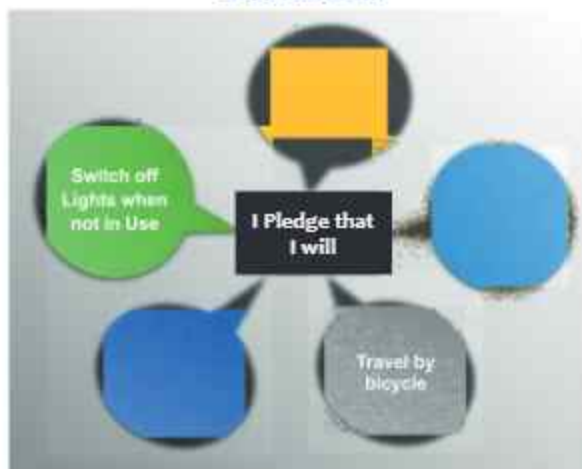
Name of the brand	Features	Wattage of appliance (A) (In kilowatt [kW])*	Durability (expected life of the appliance) (B) (In years)	Maximum retail price (C) (In rupees)	Hours of usage per day (D) (In hours)	Daily consumption $E = (A \times D)$ (In kilowatt-hour [kWh])	Yearly consumption $F = (E \times \text{no of consumption days})$ (In kilowatt-hour [kWh])	Lifetime consumption $G = F \times B$ (In kilowatt-hour [kWh])	Expenditure during the lifetime of the appliance $(H = G \times \text{rate of one unit}^{**})$ (In rupees)	Total Cost $I = C + H$ (In rupees)	Comparative yearly cost $J = I / B$ (In rupees)
XYZ	Ceiling	0.075	10	500	12	$12 \times 0.075 = 0.9$	$0.9 \times 365 = 328.5$	$328.5 \times 10 = 3285$	$3285 \times 2 = 6570$	$6570 + 500 = 7070$	$7070 / 10 = 707$

Note

* 1 kW (Kilowatt) = 1000 W (Watt)

** Assume rate of one unit is Rs. 2/-

PLEDGE



Paryavaran Snehi to ask the *Paryavaran Sanrakshak* to write at least one point to achieve the goal Affordable and Clean Energy. *Paryavaran Prehari* will write his/her viewpoints/keywords on the blackboard (example given).

Paryavaran Sanrakshak will consolidate and make the pledge. The pledge is to be displayed in the classroom and taken in the assembly as per the schedule given below:

Day	Pledge
Monday	Zero hunger pledge (SDG 02)
Tuesday	Good health & wellbeing pledge (SDG 03)
Wednesday	Clean water and sanitation pledge (SDG 6)
Thursday	Affordable and clean energy pledge (SDG 7)
Friday	Sustainable cities pledge (SDG 11)
Saturday	Responsible consumption & production pledge (SDG 12) or Climate action pledge (SDG 13)

6

SUSTAINABLE DEVELOPMENT GOAL 11

हरित भवन और शहरी कृषि
कुशल ऊर्जा और विद्युत वाहन
ऐसा हरित शहर हो अपना
यह है हम सब बच्चों का सपना

11 SUSTAINABLE CITIES
AND COMMUNITIES



Meenu, XII B, Balwant Rai Mehta,
Vidya Bhawan Sr. Sec. School, Lajpat Nagar

SDG: 11 SUSTAINABLE CITIES AND COMMUNITIES

GOAL: Make cities and human settlements inclusive, safe, resilient and sustainable

SOME OF THE TARGETS TO ACHIEVE THE GOAL

- By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums
- By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
- By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries
- Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
- By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities
- Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

HOW TO ACHIEVE THE TARGETS?

- Green buildings with solar energy panels and energy efficient cooling and heating systems.
- Improve transport system with pedestrian and bike friendly sidewalks with electric charging.
- Use solar energy and other energy efficient devices.
- Develop more green spaces by planting saplings and sowing seeds of herbs/shrubs/trees.
- Preserve natural environment and follow eco-conscious path.
- Reduce and manage solid waste.

ACTIVITY 11.1a: USE ME (BIOCLEANSER 1)

LET US DO IT TOGETHER

Preparation of a Biocleanser using citrus peels.

WHAT DO WE NEED?

1. Peels of citrus fruits like orange, mosambi, and lemon etc. – approximately 300 grams
2. Small pieces (crushed) of Jaggery – approximately 100 grams
3. Tap water – 1 litre
4. 1 Bottle (More than 2 litre)
5. Strainer and funnel

HOW TO MAKE IT?

1. Take 1 litre of water in a bottle.
2. Add 300 grams of citrus peels and 100 grams of jaggery.
3. Stir it well and close the bottle.
4. Open the bottle every day for 10 seconds for one week.
5. After one week leave the bottle undisturbed for 3 months.
6. After three months filter and use the liquid as biocleanser. Some residue is left after filtration which can be used for the preparation of the cleanser next time.

HOW TO USE IT?

1. Mix 10 ml of the biocleanser in 1 litre of water.
2. Use it for cleaning the surface (tiles/floors/washbasins etc.).



3. It will kill the bacteria present on the surfaces.
4. It is cost effective.

NOTE:

- The bottle should be opened every day for a week without fail.
- The biocleaner should be used in diluted form.
- This biocleaner is to be used only for surface cleaning.

ACTIVITY 11.1b: USE ME (BIOCLEANSER 2)

LET US DO IT TOGETHER

Another way of making biocleaner is by using baking soda. It can be used on any kind of surface like tiles, floors, washbasins etc. This cleanser can be instantly prepared.

WHAT DO WE NEED?

- | | |
|----------------|----------------------|
| 1. Baking soda | $\frac{1}{4}$ cup |
| 2. Vinegar | $\frac{1}{2}$ cup |
| 3. Water | 2 litres |
| 4. Bottle | (More than 2 litres) |

HOW TO MAKE IT?

1. Take 2 litre of water in a bottle and put baking soda and mix it well.
2. Add vinegar to this solution. The cleanser is ready for use.
3. Mix 20 ml of the biocleaner in one litre of water for ready use.
4. It will kill the germs and bacteria and give a sparkle to the surface.
5. It is cost effective and easy to use.

NOTE:

- The biocleaner should be used in diluted form.
- This biocleaner is to be used only for surface cleaning.

THE NEW ME

After the activity, all the *Prayavaran Preharis* will be sensitized towards chemical free, harmless, eco-friendly cleansers.



ACTIVITY 11.2: PEST REPELLENT

LET US DO IT TOGETHER

Prepare pest repellent from garlic peels and onion.

WHAT DO WE NEED?

- | | |
|-----------------|---------------------|
| 1. Water | 1 litre |
| 2. Onion | One |
| 3. Garlic clove | 3 to 4 |
| 4. Bottle | (More than 1 litre) |

HOW TO DO IT?

1. Take water in a bottle and add cut onions to it.
2. Peel the garlic cloves and add only garlic peels in the bottle.
3. Mix it well and close the bottle for 3 days.
4. The pest repellent is ready to be sprayed on the plants.

NOTE:

- This is for instant use and cannot be stored.
- The garlic clove is not put in the bottle.

THE NEW ME

After the activity, all the *Paryavaran Preharis* will be sensitized towards the use of safe methods for the control of insect pests.



ACTIVITY 11.3: INSTANT FERTILIZER

LET US DO IT TOGETHER

Prepare eco-friendly instant fertilizer.

WHAT DO WE NEED?

- | | |
|-----------|---------------------------|
| 1. Water | 1 litre |
| 2. Banana | 2 (Only peels to be used) |
| 3. Bottle | 1 (More than 1 litre) |

HOW TO DO IT?

1. Take 1 litre of water in a bottle and add peels of two bananas. Cover it loosely with the cap.
2. Keep it undisturbed for 2-3 days.
3. Sprinkle this water in your garden soil or pots.

NOTE:

- Fruit peels and eggshells can also be added directly to the soil.

THE NEW ME

All *Paryavaran Preharis* will be sensitized towards using eco-friendly fertilizers. It will keep the soil healthy and also help the plants in the kitchen garden to grow well without the use of chemical fertilizers.



ACTIVITY 11.4: REDUCE CARBON FOOTPRINTS (REGULARLY DELETE E-MAILS)

E-Mails are one of the fastest methods of communication in these modern times. This method of communication avoids delay as well as the use of paper. Are you aware that this modern method of communication can also have a negative impact on environment? Surprising! isn't it?

Every e-mail process uses electricity. Electricity is also needed to run the computer, server and routers as well. To produce this electricity, fossils fuel power plants burn carbon fuels such as coal, oil or gas.

If we do not clean / clear our email inbox then we create carbon footprints. Let us see how? Roughly 280 billion emails are sent every day in the world. The average carbon footprint of an email is 0.3 gm CO₂.

Let us perform an activity and try to reduce our carbon footprints and create awareness.

AIM OF THE ACTIVITY

To conduct survey of e-mails in the inbox of the classmates/teachers.

OBJECTIVE

- To create awareness about how e-mails consume electricity and create carbon footprints.
- To develop the habit of deleting junk and old e-mails among *Paryavaran Preharis*.

ACTIVITY

Paryavaran Snehi will discuss with the *Swachhta Sanrakshak* and share the given questionnaire. The *Swachhta Sanrakshak* will share it with *Paryavaran Preharis* and collect the data.

QUESTIONNAIRE

1. Name:
2. Number of email ID/s I have:
3. Number of emails in my inbox at present:
4. Number of useful emails in my inbox:

5. Number of promotional/social emails in my inbox:
6. Number of emails received by me in a week:
7. Number of emails deleted by me in a week:
8. If average carbon footprint of an email is 0.3 grams of CO₂. Then my carbon footprints at present is (no. of emails in inbox X 0.3 grams CO₂) =

Swachhta Sanrakshak will tabulate the data and calculate the carbon footprints for the whole class.

Paryavaran Snehi will explain how storing old/junk/promotional emails etc. cause carbon emissions. It not only comes from the embodied carbon of the device it was sent on but also from data centres which send and store these emails.

THE NEW ME

I will regularly clean my inbox and create awareness among my friends, teachers and parents.

DEMO ACTIVITY 11.5: ECO FRIENDLY WAY OF OPENING A POLYPACK AND ITS SAFE DISPOSAL

OBJECTIVE

- To create awareness and develop the habit of cutting/opening poly-packs in a right/eco-friendly way among *Paryavaran Preharis*.
- To sensitize *Paryavaran Preharis* about the plastic waste (single use plastic/microplastics) and its safe disposal.
- To develop the habit of cutting/opening poly-packs in a right way/eco-friendly way and its safe disposal (for making eco-bricks etc.).

WHO ARE THE PARTICIPANTS?

Plastic Sanrakshak, Harit Sanrakshak and all Paryavaran Preharis.

WHAT ARE THE REQUIREMENTS?

Poly-packs/Packets, and scissors

HOW TO DO ACTIVITY?

Paryavaran Snehi will demonstrate the activity to Paryavaran Sanrakshak. Paryavaran Sanrakshak will demonstrate the activity to Plastic Sanrakshak and Harit Sanrakshak. Harit Sanrakshak will demonstrate the right way of opening/cutting of the packets to Paryavarana Preharis as shown in images given below:



Plastic monitors will discuss about the eco-friendly way of segregating and disposing the empty packets.

Class teacher will monitor the whole activity and report will be given to *Paryavaran Snehi*.

NOTE: All the *Paryavaran Preharis* will be instructed by *Paryavaran Sanrakshak* to do this activity at home.

THE NEW ME

I will be careful while opening the poly-packets and will not create a microplastic. I will be careful while disposing poly-packs.

PROJECT 11.1: UNDERSTANDING GROWTH PATTERN IN A PLANT

LET US DO IT TOGETHER

Observe the growth of a plant.

WHAT DO WE NEED?

Seedling/small plant (herbs/shrubs), water, manure, measuring tape, thread, ruler, pen, pencil, eraser, graph paper and paper.

NO. OF PARTICIPANTS

Group activity (5-6 *Paryavaran Preharis* per group)

TYPE OF ACTIVITY

Outdoor activity (School premises)

WHAT TO DO?

1. Adopt a herb/shrub growing within the premises of the school.
2. The student to maintain a record of the plant with the following details:
 - a. Name:
 - (i) Common name
 - (ii) Scientific name
 - b. Calculate the size of leaves using graph paper.
 - c. Frequency of watering (daily/twice a week/weekly/any other) and equipment used (pipe/ sprinkler/ bucket/ any other).
 - d. Measure the height of the plant with the help of measuring tape/thread/ruler at an interval of one month for three consecutive months.
 - e. Frequency of manuring: fortnightly/monthly/once in two months/not at all.

- f. List various parts of the plant such as leaves, flowers, fruits etc. and their uses.
3. The students will find out the reasons for good/poor growth of the plant and provide solutions, if possible. This should be done after discussing with the gardener.
4. At the end of the year, all the parameters should be observed and compiled.
5. Students will write one or two pages on their experience and learnings from the activity and share it in the school assembly.
6. *Paryavaran Prehari* to hand over the adopted plant to a *Paryavaran Prehari* one year junior to him/her.

PROJECT 11.2: LEARNING BEYOND CLASSROOM

Paryavaran Snehi will arrange for a visit of *Paryavaran Preharis* to any place of ecological importance in Delhi (List of places given in Annexure v).

Paryavaran Prehari will carry a notebook and note the following points:

1. Name of the place visited
2. Flora – Names of the plants observed (Trees/shrubs/herbs)
3. Fauna – Names of the animals seen
4. Name of things displayed in the parks and material used for making them
5. Description of the material used (plastic/metal/glass/any other)
6. Any eco-friendly activity seen in the park

Paryavaran Snehi will discuss with *Paryavaran Preharis* about the observations made by them and ask them to write on the following points:

1. What did they like in the park?
2. What did they not like in the park?
3. What can be done to make the park better?
4. What can be done by them to further improve the park?
5. Write any one eco-friendly practice observed by them.
6. If there is anything observed which they would like to do in their school/home?
7. *Paryavaran Prehari* will write a short note about their visit and share with their classmates.

PROJECT 11.3: KNOW YOUR SOAP

Paryavaran Preharis to make a project. Collect the data for at least five bathing soaps and record your observations in the table given below:

Name of the Soap	Colour	INGREDIENTS													Cost per gram	
		Sodium Salt (Present/Absent)				Ethylene Diamine Tetra Acetic Acid (ETDA)		Other Chemicals 1/2/3/4/5 (Give the Names)	Glycerine		Perfume		Smell Soothing/ Fresh/ Faint/ Strong/ Floral/ Any Other	Natural Extracts (Name of the Natural Extract)		Packing Material used (Nature of packing material)
		Sodium Palmate	Sodium Palm Kernelate	Sodium Chloride	Other	Present	Absent		Present	Absent	Present	Absent				

Share the data with your classmate and discuss the following questions:

1. Do all the soaps have glycerine? What is its use in soap?
2. Name the soaps which have glycerine.
3. Name the natural extracts used and its source.
4. What kind of packaging material is used?
5. Is the packaging material used ecofriendly?
6. Is there any soap packed in plastic material?
7. Which soap would you like to use and why?

PLEDGE



Paryavaran Snehi to ask the *Paryavaran Sanrakshak* to write at least one point to achieve the goal Sustainable Cities and Communities. *Paryavaran Prehari* will write his/her viewpoints/keywords on the blackboard (example given).

Paryavaran Sanrakshak will consolidate and make the pledge. The pledge is to be displayed in the classroom and taken in the assembly as per the schedule given below:

Day	Pledge
Monday	Zero hunger pledge (SDG 02)
Tuesday	Good health & wellbeing pledge (SDG 03)
Wednesday	Clean water and sanitation pledge (SDG 6)
Thursday	Affordable and clean energy pledge (SDG 7)
Friday	Sustainable cities pledge (SDG 11)
Saturday	Responsible consumption & production pledge (SDG 12) or Climate action pledge (SDG 13)

SUSTAINABLE DEVELOPMENT GOAL 12



उतना ही लो जितना
जरूरी हो



Khushi and Tina, XI A, Bahvant Rai Mehta,
Vidya Bhawan Sr. Sec. School, Lajpat Nagar

SDG12: RESPONSIBLE CONSUMPTION AND PRODUCTION

GOAL: Ensure sustainable consumption and production patterns

SOME OF THE TARGETS TO ACHIEVE THE GOAL

- By 2030, achieve the sustainable management and efficient use of natural resources
- By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
- By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

HOW TO ACHIEVE THE TARGETS?

- Using the resources only when required
- Avoiding food wastage at various levels
- Proper waste management
- Creating awareness about sustainable development

ACTIVITY 12.1: FOOD AUDIT AT HOME/SCHOOL

LET US DO IT TOGETHER

Let us find out how much extra food is on our plate or how much extra we bring in our lunch box.

WHAT DO WE NEED?

Pen, pencil, paper, weighing scale, bucket

NO. OF PARTICIPANTS

All the *Paryavaran Preharis* in the class

HOW TO DO IT?

Paryavaran Snehi will discuss with *Paryavaran Sanrakshak* the food they bring in their lunch box and the amount of food packed in their tiffin. *Paryavaran Sanrakshak* will discuss the importance of food and the various ways to reduce food wastage with *Bhojan Sanrakshak*, who will implement it with *Paryavaran Preharis*.

Paryavaran Preharis will collect the waste/leftover food from their class in a bucket and note the weight of the empty bucket and the bucket with leftover food. This is to be done for a week.

Paryavaran Preharis will keep a tally of the food wasted in a week or month in the observation table below.

Observation Table

S.No.	Date	Weight of empty bucket	Weight of bucket with food	Weight of thrown-away food

CALCULATIONS

The *Paryavaran Snehi* will ask the students to do the following:

1. Calculate the total amount of food leftovers collected in 1 day/15 days/30 days___(kg)
2. Calculate average food wasted per student/day / week / month (Amount of food collected/number of students)
4. Calculate total food wasted in the school per day/week/month.

LET US DISCUSS

- *Bhojan Sanrakshak* will discuss the results with *Paryavaran Prehari*, who will present the report in the assembly. *Paryavaran Prehari* will tabulate the causes of food wastage as listed by the students and ways to reduce it.
- *Bhojan Sanrakshak* will help *Paryavaran Prehari* realize how much food will be wasted over an extended period and will encourage them to be mindful of how much food can be prevented from being wasted.
- *Bhojan Sanrakshak* of every class will appoint two FOOD SAVIOURS who will encourage others to reduce the wastage of food.
- *Bhojan Sanrakshak* to compare data from different classes and present it during the assembly.

THE NEW ME

Paryavaran Sanrakshak will be able to identify the amount of food that goes to waste per day and how they can contribute in reducing this waste.

ACTIVITY 12.2: RECIPES FROM LEFTOVER FOOD

LET US DO IT TOGETHER

Identify new recipes using leftover food.

WHAT DO WE NEED?

Pen, pencil, paper

NO. OF PARTICIPANTS

All the *Paryavaran Preharis* in the class

HOW TO DO IT?

Paryavaran Snehi will discuss with *Paryavaran Sanrakshak* about interesting recipes prepared from leftover food of their lunch box. *Paryavaran Sanrakshak* will discuss the importance of food and the various ways to reduce food wastage by identifying interesting recipes with *Bhojan Sanrakshak*, who will in turn discuss it with *Paryavaran Preharis*.

LET US DISCUSS

- *Bhojan Sanrakshak* to initiate a discussion with the *Paryavaran Preharis* and create a recipe folder for leftover foods. Every child is to share a recipe for the same with the help of the parents, and it can further be shared with the parents on PTM day. Even parents can share the recipes with other parents.
- *Paryavaran Sanrakshak* can also design any game for the parents based on recipes for leftover foods for the PTM day.
- As this activity is done to inculcate the habit of avoiding food wastage by the children, the *Bhojan Sanrakshak* will again conduct the Food Audit with the help of *Paryavaran Preharis* and Food Saviours after three months. The results will be compared with the previous results.

ACTIVITY 12.3: FOOD WASTAGE-PINCH ON OUR POCKET

LET US DO IT TOGETHER

Calculate the monetary loss of the food wasted at the school level.

WHAT DO WE NEED?

Pen, pencil, paper

NO. OF PARTICIPANTS

All the *Paryavaran Preharis* in the class

HOW TO DO IT?

Paryavaran Snehi will discuss with *Paryavaran Sanrakshak* how to calculate the monetary loss of the food wasted. *Paryavaran Sanrakshak* will discuss how to avoid food wastage (as each and every grain in our bowl is the fruit of the labour of our hard-working farmers') with *Bhojan Sanrakshak*, who will implement them with *Paryavaran Preharis*.

LET US DISCUSS

- *Bhojan Sanrakshak* to initiate a discussion with the *Paryavaran Preharis* to calculate the time and labour wasted by throwing food versus cooking and growing time (for vegetarian food).
- *Paryavaran Preharis* to calculate the monetary loss in terms of rupees.
- *Paryavaran Preharis* to fix the average cost of food (thrown) per kilogram, and the wastage in terms of money can be calculated as: cost per kilogram (Rs) * kilogram food wasted = Rs.
- *Paryavaran Preharis* to do this activity at home for the cooked and uncooked food.

LET US DISCUSS

- *Bhojan Sanrakshak* will encourage group discussion by *Paryavaran Preharis* to inculcate the simple practice of avoiding the wastage of food

as each and every grain in our bowl is the fruit of labour of our hard-working farmers.

- Pledge by students to avoid wastage of food as well as to save food.
- *Paryavaran Preharis* to form their own pledge for saving food. The pledge is to be administered every day by the FOOD SAVIOURS to the students of the class. The pledge is to be displayed in the classroom.



Courtesy : RPVV Sector 10 Dwarka

PROJECT 12.1: ESTIMATING FOOD WASTAGE IN MY CITY - FACT COLLECTION

LET US DO IT TOGETHER

Let's try to find out the how, why, when, what, where and who of food wastage in our city.

WHAT DO WE NEED?

Pen, pencil, paper.

NO. OF PARTICIPANTS

All the students of the class.

HOW TO DO IT?

Paryavaran Snehi will discuss with *Paryavaran Sanrakshak* about the various vendors visiting their colonies or in the market selling raw fruits, vegetables or cooked eatables (pani-puri, momos, noodles, dal-roti, samosa etc.) and will be further asked few questions to estimate the wastage of food. *Paryavaran Sanrakshak* will discuss about food wastage with *Bhojan Sanrakshak*, who will implement it with *Paryavaran Preharis*.

Paryavaran Preharis will formulate the questionnaire for the same, keeping in mind the various 'Ws' as suggestive questions given below:

SOME OF THE SUGGESTIVE QUESTIONS ARE GIVEN BELOW:

1. WHO - Name of the person and his/her profession.
2. WHAT - Is being sold by the vendor?
3. HOW - Whether the person sells his/her products raw or cooked
4. WHEN - Timings of his/her selling (number of hours spent)
5. WHERE - Whether the person sells his/her products by standing in one place or moving from one place to another.
6. WHY - Has he/she chosen this profession?

7. WHAT - Is generally left behind / not sold after the selling hours?
8. WHAT - Do they do with the leftover food? (Throw, if yes, then where, donate-if yes, then to whom)
9. WHAT - Strategies do they adopt to avoid wastage of food.
10. DO - They weigh the amount of food lost? (If yes, then what is the daily loss in kgs)
11. WHAT - Is the loss in terms of money?

Note: All the above is to be noted for one day

THE INFORMATION CAN BE GATHERED IN TABULAR FORM BY THE *Paryavaran Preharis* IN ACTION.

After framing the questions and formulating the format of the project, the *Paryavaran Preharis* will discuss with their classmates, and the survey work is assigned as per the given guidelines:

1. Students to work in pairs
2. Each pair is to talk to at least two vendors: one selling fruits and vegetables and the other selling cooked food.
3. This can be a weekend activity for the children.
4. *Paryavaran Preharis* will collate the above data for one day of food wastage - fresh and raw food.

LET US DISCUSS

Bhojan Sanrakshak will discuss the following with *Paryavaran Preharis*:

1. What are the significant reasons for food wastage?
2. Can it be avoided?
3. If yes, then can we tell or help the food vendor? If yes, then how?
4. How are the vendors disposing of waste food? Can we tell them a better method?
5. Calculate average food wastage (fresh and cooked) per day per vendor in your city.

GAME 12.1: RESPONSIBLE FOOD HABITS

OBJECTIVE OF THE GAME

1. To make *Paryavaran Preharis* respect food.
2. To bring consciousness among *Paryavaran Preharis* regarding food wastage.
3. Inculcate value for waste segregation & disposal
4. Sensitize *Paryavaran Prehari* only as per the requirement.
5. Develop the habit of storing food properly to minimize spoilage and wastage.

RULES OF THE GAME

1. Two to four players can play the game.
2. Players will roll the dice.
3. If any player gets 6 on the dice, the player will keep the token in box 1.
4. Subsequently, the player will move the token in the box according to the number on the dice.
5. The player will play according to the instructions given in each box.
6. Player who reaches the end first is the winner.

After the game, the players will discuss the text boxes and what they have learnt from the game.

8	Shares extra food with classmates [Go to 11]	9		24		25	Only eats poori aalu in MDM [Go to 21]	40		41	Always buys comparatively cheaper foods and vegetables smaller in size [Go to 46]
7		10	Always checks expiry date before buying [Go to 16]	23		26		39		42	
6		11		22	Never eats snacks before meal time [Go to 26]	27		38	Five different foods are cooked at home for night meals. [Go to 27]	43	
5	Makes snacks with leftover food [Go to 7]	12	Always takes big serving portion regardless of hunger [Go to 3]	21		28	Extra food is kept in the community refrigerator [Go to 31]	37		44	Always segregates biodegradable and non-biodegradable waste before throwing [Go to 47]
4		13		20	Feeds the Peets or leftovers to herbivores or dogs [Go to 26]	29	Always throw away the peels of Apple before eating [Go to 23]	36		45	Most of the times fruits bought are not eaten and thrown away [Go to 21]
3		14	Always carry cloth bag for grocery buying [Go to 19]	19		30		35	Fresh fruits and vegetables are stored properly/well at home [Go to 42]	46	
2	Have biscuits before meals [Restart]	15		18		31		34		47	
1	START	16		17	Always buys extra vegetables then required [Go to 11]	32	Brings extra food in lunch box [Go to 19]	33		48	Welcome Well done!

PLEDGE



Paryavaran Snehi to ask the *Paryavaran Sanrakshak* to write at least one point to achieve the goal-Responsible Consumption and Production. *Paryavaran Prehari* will write his/her viewpoints/keywords on the blackboard (example given).

Paryavaran Sanrakshak will consolidate and make the pledge. The pledge is to be displayed in the classroom and taken in the assembly as per the schedule given below:

Day	Pledge
Monday	Zero hunger pledge (SDG 02)
Tuesday	Good health & wellbeing pledge (SDG 03)
Wednesday	Clean water and sanitation pledge (SDG 6)
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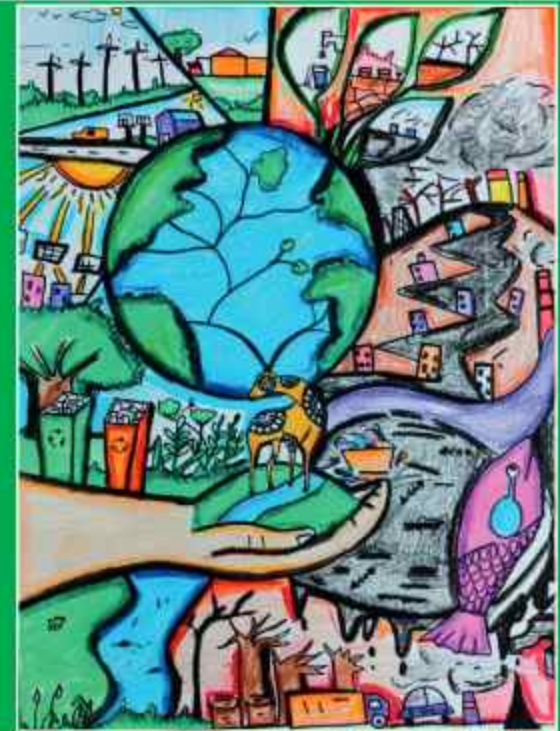
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SUSTAINABLE DEVELOPMENT GOAL 13

13 CLIMATE
ACTION



पर्यावरण में छेड़-छाड़ से
जलवायु रही है बदल
आओ हम सब मिलकर
बचाएँ अपना कल



Kumkum, IX A, Balwant Rai Mehta,
Vidya Bhawan Sr. Sec. School, Lajpat Nagar

SDG 13: CLIMATE ACTION

GOAL: Take urgent action to combat climate change and its impacts

SOME OF THE TARGETS TO ACHIEVE THE GOAL

- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
- Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

HOW TO ACHIEVE THE TARGETS?

- Source all electricity from renewable resources such as hydro, wind and solar.
- Replace the lighting system to energy efficient LED lighting.
- Reduce Green House Gas (GHG) emission from transport operations.
- Expand sustainable forest management.

ACTIVITY 13.1: MELTING ICE

LET US DO IT TOGETHER

Paryavaran Snehi will demonstrate the activity to *Paryavaran Sanrakshaks* of all the classes. *Paryavaran Snehi* will give insight about the crisis of rising sea level and its impact on surroundings.

WHAT DO WE NEED?

Any transparent container with flat bottom, clay, ice-cubes, water, small stones, toothpick, paper, adhesive

HOW TO DO IT?

The *Paryavaran Snehi* will demonstrate the process of melting of ice to *Paryavaran Sanrakshaks* who in turn will demonstrate the same to *Paryavaran Preharis* of their class.

1. Preparing the surroundings

- a. Cut the paper pieces into the shapes of trees, houses, etc.

2. Preparing the mountains

- a. Use the clay in brown colour.
- b. Build them in the shape of mountains.
- c. Use a toothpick to make slight lines on the mountains to show the streams of water.

3. Placing it all together

- a. Place the mountains on either side of the transparent container.
- b. Fill water in the container touching the foot of the mountain.
- c. Stick the surroundings (prepared in previous steps) at the edges of the mountains and place stones at the foot of the mountains.

- d. Place ice cubes on the top of mountains.
- e. Let the ice cubes melt and water flow through the streams to the container.
- f. Observe the rise in the level of water in the container.
- g. Surroundings like trees or houses will get submerged under the rising water.
- h. The water in the container represents the sea. Melting of ice is indicating the rise in temperature due to global warming.
- i. *Paryavaran Sanrakshak* can discuss the possible effects of global warming due to rising sea level.



THE NEW ME

Paryavaran Preharis will become aware about climate change and the impact of global warming on all kinds of ecosystem.

ACTIVITY 13.2: AUTOGRAPH OF MY TREE

LET US DO IT TOGETHER

Paryavaran Snehi will explain *Paryavaran Sanrakshak* about the nature walk in the school premises and also how to give a hug to any tree/shrub growing in the school campus and say loving words to it. *Paryavaran Snehi* will also demonstrate the activity of taking the impression of bark.

WHAT DO WE NEED?

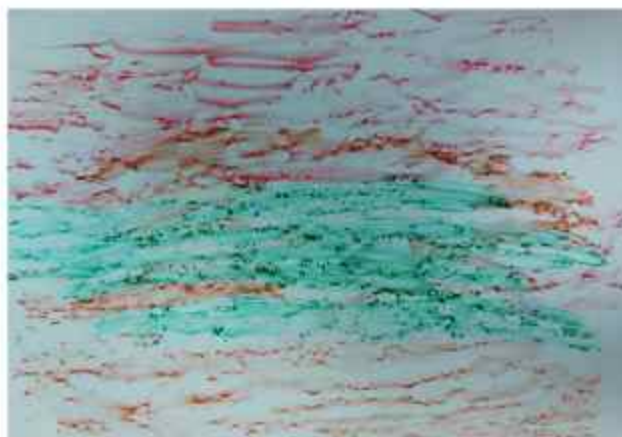
Crayon and plain white paper

HOW TO DO IT?

Paryavaran Sanrakshak will explain and take *Paryavaran Preharis* for nature walk in the school. *Paryavaran Preharis* will take the impression of the bark of the tree with the help of crayons and speak with the tree. After coming back to the class, they will observe and compare the impressions of the tree bark. All will share the words spoken to the trees. They will also find out the common name of the tree that they hugged.

THE NEW ME

The *Paryavaran Preharis* will develop a feeling of compassion and gratitude for the trees.



ACTIVITY 13.3: SEARCH THE SCHOOL BAG

LET US DO IT TOGETHER

Paryavaran Snehi will explain about the activity to *Paryavaran Sanrakshak* who in turn will explain this activity to *Plastic Sanrakshak*.

WHAT DO WE NEED?

Note book/diary, pen/pencil, eraser

HOW TO DO IT?

Plastic Sanrakshak will ask all the *Paryavaran Preharis* of his class to take out all the things of their bags. *Plastic Sanrakshak* will ask them to make a list of all the things in their bag. *Paryavaran Preharis* will encircle the things in their list that are made up of plastic, for example scale, pen, lunch box, water bottle, notebook cover etc.

Paryavaran Preharis will count the total number of things made up of plastic as well as things made up of other materials separately.

Plastic Sanrakshak will discuss if any other alternative material can be used in place of plastic.

THE NEW ME

Paryavaran Preharis will replace the plastic items with available alternatives.

NOTE:

- *Paryavaran Preharis* can make a table for the above activity.
- The same activity is to be repeated by *Paryavaran Snehi* after two months and *Plastic Sanrakshak* will monitor the change.

ACTIVITY 13.4: PLASTIC PEN AUDIT

LET US DO IT TOGETHER

Paryavaran Snehi will explain about the activity to *Paryavaran Sanrakshak* who in turn will explain this activity to *Swachhata and Plastic Sanrakshak*.

WHAT DO WE NEED?

Weighing scale, Pencil, Pen, Notebook and Eraser

HOW TO DO IT?

1. *Swachhata Sanrakshak* of every class will collect all discarded plastic ballpoint/ fountain/sketch pen for two weeks in his/her class.
2. *Paryavaran Preharis* of the class will hand over the unusable plastic pens to *Swachhata Sanrakshak*.
3. *Swastha Sanrakshak* will collect the pens for 15 days in a cardboard box and handover the pens to *Plastic Sanrakshak*.

Plastic Sanrakshak will weigh all collected plastic pens by using a weighing scale and note down the weight of plastic pens collected in a fortnight in the table given below:

Date	Weight of discarded plastic pens (Grams/Kilograms)	Number of students in the class	Plastic generated per student (Grams/Kilograms)

5. *Paryavaran Preharis* to discuss about the alternatives to plastic pens or how to reduce the use of plastic pens and ways to collectively dispose of plastic pens.

NOTE

Swachhta Sanrakshak and *Plastic Sanrakshak* will repeat the same activity with the *Paryavaran Preharis* in the next month and compare the result with the previous month.

THE NEW ME

I will avoid the use of disposable plastic pens and will use the refillable pens.

ACTIVITY 13.5: UNDERSTANDING CLIMATE CHANGE

LET US DO IT TOGETHER

Paryavaran Snehi will explain about the activity to *Paryavaran Sanrakshak* who in turn will get the activity conducted by *Paryavaran Preharis*.

WHAT DO WE NEED?

Notebook, pencil, pen and eraser.

HOW TO DO IT?

Paryavaran Sanrakshak will share table 1 indicating temperature and humidity with *Paryavaran Preharis* and ask the question given below:

Table 1 - The different indicators observed for temperature and humidity

Indicators	October 2012	October 2022
Temperature °C (Average)	25	28.5
Humidity	63	37

Source:- <https://www.timeanddate.com/weather/india/new-delhi/historic?month=6&year=2012>

QUESTION

1. Is there any difference in the temperature observed? If yes, then what is the difference?
2. How does change in temperature affect plant and animal life?
3. What can be the possible reason/s for this change?
4. Talk to your parents/grandparents about the changes in the context of climate.
5. Imagine if winter months become summer and summer months become winter, how will it affect your life at school and at home?

THE NEW ME

Paryavaran Preharis will be sensitized towards climate change.

ACTIVITY 13.6: CELEBRATING BIRTHDAY WITH A DIFFERENCE

LET US DO IT TOGETHER

Paryavaran Snehi will explain about the activity to *Paryavaran Sanrakshak* who in turn will explain this activity to *Paryavaran Preharis*.

WHAT DO WE NEED?

Note book/diary, pen/pencil, eraser

HOW TO DO IT?

Paryavaran Preharis will adopt any one plant in the school campus and celebrate their birthday with the plant along with their classmates. On the day of his/her birthday *Paryavaran Preharis* will bring the gifts like water, manure, bird nest, etc for the adopted plant.

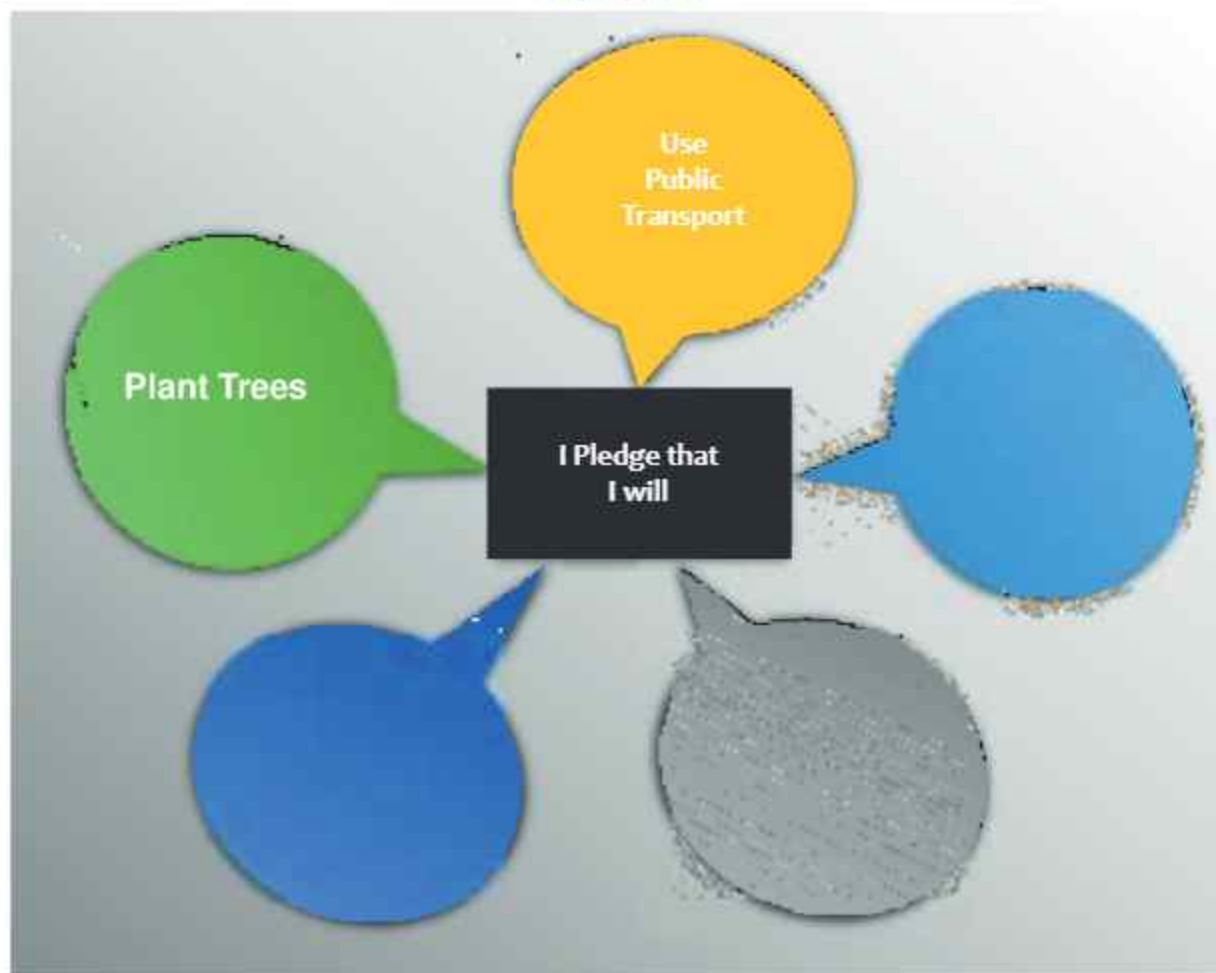


Further, clean the area around the plant. Apart from that, the birthday will be celebrated around the plant by doing various activities like singing, dancing, etc. *Paryavaran Preharis* will list the return gifts (flowers, fruits, shade, oxygen, wood, etc.) given by the plant.

THE NEW ME

Paryavaran Preharis will have respect for nature and develop the habit of caring for plants.

PLEDGE



Paryavaran Snehi to ask the *Paryavaran Sanrakshak* to write at least one point to achieve the goal-Combating climate change and its impact. *Paryavaran Prehari* will write his/her viewpoints/keywords on the blackboard (example given).

Paryavaran Sanrakshak will consolidate and make the pledge. The Pledge is to be displayed in the classroom and taken in the assembly as per the schedule given below:

Day	Pledge
Monday	Zero hunger pledge (SDG 02)
Tuesday	Good health & wellbeing pledge (SDG 03)
Wednesday	Clean water and sanitation pledge (SDG 6)
Thursday	Affordable and clean energy pledge (SDG 7)
Friday	Sustainable cities pledge (SDG 11)
Saturday	Responsible consumption & production pledge (SDG 12) or Climate action pledge (SDG 13)

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- Transforming our world: the 2030 Agenda for Sustainable Development | Department of Economic and Social Affairs (un.org)
- Goal 3: Good health and well-being - The Global Goals
- Goal 2: Zero hunger - The Global Goals
- Goal 6: Clean water and sanitation - The Global Goals
- Goals Archive - The Global Goals
- Transforming our world: the 2030 Agenda for Sustainable Development | Department of Economic and Social Affairs (un.org)
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- Goal 11: Sustainable cities and communities - The Global Goals
- Goal 12: Responsible consumption and production - The Global Goals
- Goal 13: Climate action - The Global Goals



ANNEXURE

ENVIRONMENT RELATED DAYS

S. No.	Day	Date
1	National Cleanliness Day	January 30 th
2	World Wetlands Day	February 2 nd
3	National Science Day	February 28 th
4	World Wildlife Day	March 3 rd
5	Global Recycling Day	March 18 th
6	World Water Day	March 22 nd
7	Earth Hour	March 25 th
8	Earth Day	April 22 nd
9	Dengue Prevention Day	May 16 th
10	Endangered Species Day	May 19 th
11	World Biodiversity Day	May 22 nd
12	Anti-tobacco Day	May 31 st
13	World Environment Day	June 5 th
14	Van Mahotsav	1 st week of July
15	World Population Day	July 11 th
16	World Nature Conservation Day	July 28 th
17	Akshay Urja Diwas	August 20 th
18	International Day for the Preservation of the Ozone Layer	September 16 th
19	Zero Emissions Day	September 21 st
20	World Rivers Day	September 25 th

S. No.	Day	Date
21	International Day of Awareness of Food Loss and Wastage	September 29 th
22	Wildlife Week	1 st week of October
23	Animal Welfare Day	October 4 th
24	International E-Waste Day	October 14 th
25	Sustainable Day	4 th Wednesday of October
26	National Pollution Prevention Day	December 2 nd
27	Wildlife Conservation Day	December 4 th
28	World Soil Day	December 5 th
29	National Energy Conservation Day	December 14 th

LIST OF MEDICINAL PLANTS FOR HERBAL GARDEN

S. No.	Common Name	English Name	Botanical Name	Remarks\Uses
1	Adusa/Vasaka	Malabar Nut	<i>Adhatoda vasica</i> Nees Pennel	Cough, Asthma, Bronchitis
2	Ananas	Pineapple	<i>Ananas comosus</i> Pennel	Sore Throat, Diabetes, Heart Disease, Obesity
3	Babool	Indian Gum	<i>Acacia arabica</i> Wild Pennel	Oral Care, Bleeding Gums, Wounds
4	Brahmi	Thyme leaved gratiola	<i>Bacopa monnieri</i> Pennel Pennel	Enhances Memory, Anxiety
5	Dhaniya	Coriander	<i>Coriandrum sativum</i> Linn Pennel	Indigestion, Flatulence, Controls Spasmodic Pain
6	Kalmegh	Kalmegh	<i>Andrographis paniculata</i> Pennel	Indigestion, Acne, Diarrhea
7	Lehsun	Garlic	<i>Allium sativum</i> Pennel	Ringworm, Dysentery, Wounds
8	Nagarmotha	Nut Grass	<i>Cyperus rotundus</i> Linn Pennel	Fever, Diabetes, Solar Dermatitis
9	Punarnava	Spreading Hogweed	<i>Boerhaavia diffusa</i> Linn Pennel	Anaemia, Liver Diseases, Wounds
10	Shalparni	Shal Leafed Bush	<i>Desmodium gangetium</i> DC Pennel	Analgesic, Anti-Inflammatory
11	Tulsi	Holy Basil	<i>Ocimum sanctum</i> Linn Pennel	Indigestion, Heart Diseases, Respiratory Diseases
12	Vridhadaru	Elephant Creeper	<i>Argyrea speciosa</i> Sweet Pennel	Diabetes, Skin Diseases, Wounds
13	Agarkasha	Eagle Wood	<i>Aquilaria agallocha</i> Roxb Pennel	Bed-Wetting, Incompetency of Urinary Bladder
14	Ankol	Sage leaf alangium	<i>Alangium salvifolium</i> Pennel	Snakebite, Scorpion Bite, Dog Bite
15	Bari Elaichi	Greater Cardamom	<i>Amomum subulatum</i> Pennel	Bronchitis, Asthma, Appetizer, Digestant
16	Chirchita	Prickly chaff flower	<i>Achyranthes aspera</i> Pennel	Indigestion, Cough, Asthma, Anemia, Jaundice
17	Elaichi	Lesser Cardamom	<i>Elettaria cardamomum</i> Maton Pennel	Nausea, Vomiting, Dry Cough
18	Kanghi	Country Mallow	<i>Abutilon indicum</i> Pennel	Facial Paralysis, Joint Disorders, Increases Strength
19	Malkagini	Staff Tree	<i>Celastrus paniculatus</i> Willd Pennel	Muscle Cramps, Backache, Osteoarthritis, Paralysis

S. No.	Common Name	English Name	Botanical Name	Remarks\Uses
20	Neem	Margosa Tree	<i>Azadirachta Indica</i> A. Juss Pennel	Leprosy, Eye Disorders, Bloody Nose, Intestinal Worms
21	Pyaj	Onion	<i>Allium cepa</i> Linn Pennel	Prostate Cancer, Esophageal, Stomach Cancer
22	Shatavari	Asparagus	<i>Asparagus racemosus</i> Willd Pennel	Infertility, Loss Of Libido, Threatened Miscarriage
23	Ulatkambal	Devil's Cotton	<i>Abroma augusta</i> Pennel	Gynecological Problems, Irregularity In Periods
24	Yuvasa	Camel Thorn	<i>Alhagi camelorum</i> Pennel	Rheumatism, Vomiting, Stomachache, Constipation
25	Akarkara	Pellitory	<i>Anacyclus pyrethrum</i> Pennel	Toothache, Dryness Of The Mouth, Throat, Catarh
26	Ashwagandha	Winter Cherry	<i>Withania somnifera</i> Dunal Pennel	Stress Tolerance, Immunity, Joint Pains, Skin Sores
27	Bael	Bengal Quince	<i>Aegle marmelos</i> Corr. Pennel	Dysentery And Diabetes, Sunstrokes, Anti-Cancer
28	Chitvan	Leadwort	<i>Plumbago zeylanica</i> Linn Pennel	Arthritis, Skin Diseases, Menstrual Disorders, Obesity
29	Dritkumari	Aloes	<i>Aloe vera</i> Tourn ex. Linn Pennel	Ulcers, Burn Injuries, Jaundice, Acne
30	Ketaki	Crepe Ginger	<i>Costus speciosus</i> (Koeing) Sm. Pennel	Obesity, Hyperlipidaemia, Diabetes
31	Mandukparni	Gotu Kola	<i>Centella asiatica</i> Urban Pennel	Sedative, Antibiotic, Detoxifier, Laxative
32	Palash	Bastard Teak	<i>Butea monosperma</i> Kuntze Pennel	Complexion of Skin, Worm Infestations, Roundworm
33	Ratti	Rosary Pea	<i>Abrus precatorius</i>	Joint Pains, Paralysis, Alopecia
34	Shirish	Siris Tree	<i>Albizia lebbeck</i> (Linn) Benth Pennel	Bronchial Asthma,
35	Bach	Sweet Flag	<i>Acorus calamus</i> Pennel	Flatulent Colic, Atonic Dyspepsia, Ulcers
36	Amaltas	Indian Laburnum	<i>Cassia fistula</i> Linn Pennel	Ulcers, Wounds
37	Ashok	Sorrowless tree	<i>Saraca indica</i> Pennel	Menstrual Irregularities, Uterine Stimulant
38	Barangi	Bharangi	<i>Clerodendron serratum</i> Moon Pennel	Common Cold, Chronic Sinusitis, Allergic Rhinitis,
39	Chitvan	Dita	<i>Alstonia scholaris</i> Pennel	Skin Ulcers, Fever, Increasing Lactation

S. No.	Common Name	English Name	Botanical Name	Remarks\Uses
40	Gugullu	Indian Bdellium	<i>Commiphora mukul</i> Engl Pennel	Joint Disorders, Heart Diseases, Hypolipidemic,
41	Kadirkasth	Cutch Tree	<i>Acacia catechu</i> Willd Pennel	Skin & Respiratory Problems, Oral Hygiene, Astringent
42	Meetha vish	Monk's hood	<i>Aconitum ferox</i> Pennel	Fever, Diuretic Action, Arthritis
43	Patha	Velvet Leaf Tree	<i>Cissampelos pareira</i> Linn Pennel	Ulcers, Sinuses, Skin Diseases, Poisonous Bites
44	Senna	Indian Senna	<i>Cassia angustifolia</i> Vahl Pennel	Laxative, Constipation, Irritable Bowel Syndrome, Weight Loss
45	Supari	Areca Nut/Betel Nut	<i>Areca catechu</i> Linn Pennel	Obesity, Hyperlipidaemia, Diabetes, Irregular Menstruation
46	Vajrdanti	Barleria	<i>Barleria prionitis</i> Linn Pennel	Strengthens Teeth, Fever, Catarrh
47	Amla	Indian Gooseberry	<i>Emblica officinalis</i> Linn Pennel	Antioxidant, Antistress, Constipation, Fever
48	Atees	Indiana Ateech	<i>Aconitum heterophyllum</i> Wall Pennel	Fever, Respiratory
49	Bhojpatra	Himalayan Birch	<i>Betula utilis</i> D. Don Pennel	Wounds, Obesity
50	Dalchini	Bark Cinnamon	<i>Cinnamomum Zeylanicum</i> Breyn Pennel	Antibacterial, Antiseptic
51	Jimikand	Elephant yam	<i>Amorphophallus campanulatus</i> Pennel	Dysentery, Piles, Hemorrhoids
52	Kulanjan	Greater Galangal	<i>Alpinia galanga</i> Pennel	Flatulence, Dyspepsia, Vomiting, Seasickness, Catarrh
53	Mulethi	Liquorice	<i>Glycyrrhiza glabra</i> Linn Pennel	Digestive Disorders, Ulcers, Bronchitis
54	Pippali	Long Pepper	<i>Piper longum</i> Linn Pennel	Asthma, Cough, Indigestion
55	Salai Guggul	Indian Olibanum	<i>Boswellia serrata</i> Roxb. Pennel	Joint Pains, Headache, Diabetes
56	Tamalpatra	Cinnamon Leaf	<i>Cinnamomum tamala</i> Nees Pennel	Diabetes, Digestion, Cold
57	Varun	Three Leaved Caper	<i>Crataeva nurvala</i> Buch-Ham Pennel	Kidney Stones, Bladder Stones

Source: <https://www.dabur.in/en-us/about/science-of-ayurveda/herbal-medicinal-plants>

LIST OF GOVERNMENT NURSERIES

The schools/Eco Club Incharge (*Paryavaran Snehi*) can collect saplings from the following 14 Government Nurseries. The request should be made by HOS on a letter head.

S. No.	Place	Address
1	Kamla Nehru Ridge Nursery	C.F. Office, Near Delhi University, North Campus
2	Anand Vihar	Behind ISBT, Anand Vihar
3	ITO Nursery	Bhairon Marg Junction Near Pragati Maidan Ring Road
4	Kondli Nursery	Near Hindon cut Kondli, NH 24
5	Hauz Rani Forest	Near DC Office (South), M.B. Road, Saket
6	Tughlakabad Nursery	O/o The DCF South Near Shooting Range Tughlakabad-44
7	Alipur City Forest	Old Secretariat, Seed Farm, Alipur
8	Brar Sqaure Nursery	Near Railway Crossing Near War Cementary, Opposite Delhi Cantt, Ring Road
9	Pooth Kalan Nursery	Near Sultanpur Bus Terminal Pooth Kalan
10	Rewla Khanpur Najafgarh	Near SDM Office Old BRO Office Najafgarh Brijwasan Road
11	Kharkhari Nursery	Near Kharkhari Jatmal Agriculture Seed Farm Kharkhari Village
12	Birla Mandi Nursery	Office of DCW(W) Birla Mandi Lane Behind Mandir Marg
13	Mahrampur City Forest	Near Sindhu Border Narela
14	Qutubgarh Nursery	Qutubgarh

AGENCIES COLLECTING E-WASTE/CLOTHES / FOOD WASTE (HELPLINE NUMBERS)

S. No.	Name of Agency	Contact Number
1	Biomedical Waste Collection	09560521112
2	Delhi Pollution Control Committee	011-23869378
3	E-Waste Collection	1800 102 5679 1800 102 9882
4	Hazardous Waste Collection	09717593501
5	Municipal Corporation of Delhi	1533 (Toll Free) 8588887773 (Whatsapp)
6	Paryavaran Mitra	08448441758
7	Public Works Department	1800 110 093
8	Waste Food Donation	155262 (Toll Free) 09087790877

PLACES TO VISIT

S. No.	Place
1	Aravali Biodiversity Park, Near Madhyanchal Vasant Kunj Institutional Area, Vasant kunj New Delhi – 70
2	Yamuna Biodiversity Park Main Jagatpur Road Wazirabad New Delhi –84
3	Tilpath Valley B.P. W-22 Sainik Farms New Delhi –68
4	Waste to Wonder Theme Park Near Hazrat Nizamuddin Metro Station Block A Ganga Vihar Sarai Kale Khan New Delhi –13
5	IARI Pusa Patel Nagar New Delhi –12
6	Okhla Bird Sanctuary Subway Station in Noida Sector 94 Uttar Pradesh –201313
7	Asola Bhatti Wildlife Sanctuary Shooting Range Road Tughlkabad, New Delhi –44
8	Butterfly Park, Asola Bhatti Asola Wildlife Sanctuary, Asola New Delhi –44



S. No.	Place
9	Bharat Darshan Park Punjabi Bagh Xing, Ring Road JJ Colony, Moti Nagar, New Delhi –26
10	Tughlakabad Biodiversity Park
11	Kamla Nehru North Ridge Behind Kamla Market, Ajmeri Gate New Delhi –02
12	Dwarka Biodiversity Park Sector 21, Shahabad Muhammadpur Village, Dwarka New Delhi –77
13	Kalindi B.P. Batla House, Okhla, New Delhi –25
14	Gobird Sadan B.P. 30, Mandi Road, Gadaipur Mehrauli, New Delhi –30
15	Sri Guru Har Rai Botanical Garden, Delhi –07
16	Deer Park Hauz Khas, New Delhi –16
17	Lodhi Garden Lodhi Estate, New Delhi –03
18	Garden of 5 Senses Westend Marg, Saidulajab, Saiyad Ul Ajaeb, Saket, New Delhi –30

S. No.	Place
19	Sunder Nursery Opposite Humayun Tomb Park, Nizamuddin Sundar Nagar, New Delhi –13
20	Institute of Genomics & Integrative Biology DTC Bus Depot, South Campus, Mathura Road Near to Suchdev Vihar, New Delhi –25
21	Rashtriya Swachhata Kendra Gandhi Smriti Darshan Samiti Gandhi Darshan Complex, Raj Ghat, Delhi -110002

ALTERNATIVES TO PLASTIC PRODUCTS

Plastic is a group of natural or synthetic materials that has been shaped into many articles. It is used in place of materials such as glass, paper, metal, wood, etc. Due to its non-biodegradable nature, plastics have caused pollution which is the most complicated problem adversely affecting the environment and the life of all living beings.

Keeping in view the severity of the problem, few alternatives have been suggested to lessen the Impact of Plastic Pollution.

S. No.	New practice	Say no to
1	Bring your own Shopping bag (cloth/jute bag)	Polythene bag
2	Carry a reusable water bottle	Plastic water bottles
3	Metal/wooden utensils such as plates, bowls, spoon etc	Disposable utensils made up of plastic or thermocol
4	Steel lunch box	Plastic lunch box
5	Natural materials for decoration	Thermocol/ plastic decoration
6	Metallic geometry box/ cloth pouch	Plastic pouches
7	Refillable pens	Use and throw plastic pens
8	Metal/steel boxes for storing food items like pulses or leftover food	Plastic boxes
9	Wooden tooth brush	Plastic tooth brush
10	Metallic buckets	Plastic buckets
		

ZERO WASTE LIVING

A step towards Sustainable Lifestyle

Paryavaran Snehi and *Paryavaran Sanrakshak* along with the sanitation guardian (सफाई कर्मचारी) will keep at least one day in a week as a Zero Waste Day in the school. The announcement for the same is to be made in the assembly.

Seven steps towards Sustainable Lifestyle

1. **Refuse** - Refuse single use plastics- plastic bags, disposable cups, plastic straws etc.
2. **Reduce** - Reduce the amount of purchase of non-biodegradable including plastic goods. It helps in saving energy as well as money.
3. **Reuse** - Reuse is the use of waste products again for relatively similar purpose for which they were bought without changing the structure of the product for example - using empty bottles for refilling. Think of gifting preloved goods.
4. **Repurpose** - Use the waste material for different purpose like using waste tyres as planters, old newspapers and charts for arts and crafts etc.
5. **Repair** - Repairing durable objects like - furniture, kitchen appliances, electronic products, apparels etc., if possible, instead of buying a new one.
6. **Recycling** - Recycling waste materials into new useful products. Segregate the waste at source and sell (newspaper, plastic, metal, e-waste, tyres, glass etc.) it to the local *kabadi wala* so that it enters the recycling chain.
7. **Rethink** - Rethink about habits and actions towards waste disposal.

BIRD NEST MAKING

Bird houses are often called nesting boxes because they provide a safe place for birds to lay eggs and protect them from predators.

ROLE OF BIRDS

- Controlling Pests – Since birds eat insects, they help to eliminate unwanted pests and the use of harmful pesticides.
- Weed Control – By eating seeds of the weed plants birds help in eliminating the weeds which otherwise are to be removed manually.
- Flower Pollination – Birds which sip nectar from flowers help in pollination too.
- Conservation – Birds love native plants. By putting a friendly bird house, we can attract birds to our garden.

WHAT TO DO?

To make Bird Nests by various waste materials.

WHAT WE NEED?

Shoe boxes/cardboard boxes, wooden board, stem pieces, empty coconut shell, tape, cutter, coir/jute rope, scale, glue, scissors, colours, printed(waste) sheets, fabric piece, dry leaves, dry twigs, pruning snips.

LET US DO IT

A. Birdhouse made out of shoe box / cardboard box

Step 1. Dust and clean out your shoe box / cardboard box.

Step 2. Make a circle of not more than 1 to 1½ inch in the lid of your shoebox. The nest with bigger hole size will not be accepted by the bird. Make a second tiny hole just below the entrance for holding the stand for birds.

Step 3. For hanging, ensure that you put a small wooden piece to act as a base for the rope.

Step 4. Slit the upper and lower right corners shoebox lid. This side of the lid act as a hinge, for the front of your bird house.

Step 5. Paint the entire shoe box & lid, inside & out, with glazing glue. Press pieces of scrap paper or fabric into the glue to give it colour & style. The glue & fabric or paper will also give the box more stability.

Step 6. Press pieces & paper or fabric firmly into place around the hole for your dowel rod when dry, the material will stiffen and hold the dowel in place. Allow the glue to dry overnight.

Step 7. Add two layers of glazing over the paper or fabric design. This not only seals your project against the weather, it makes your project against the weather, it makes the cardboard stiffer and sturdier. Let the glue dry for two hours between coats and overnight after the last coat.

Step 8. Glue the right edge of your box lid to the right edge of the box. Close the bird house “door”. It should fit snugly in the place and remain closed on its own. Let the glued hinge dry for at least four hours.



A. Birdhouse made out of Coconut shell

Step 1. A complete coconut shell is split into halves.

Step 2. The two coconut shells are placed in such a way to form a cup shape.

Step 3. They are tied together with thick twine threads and hung to a rope.



Step 4. The outer layer of the shell is covered with the natural coir fibre.

Step 5. The coir is spread even to cover the outer shell.

Step 6. The excess coir that is beneath the coconut shell is tied, it makes the coconut stay stiff.

Step 7. Glue is poured on plastic gloves and applied on the coir.

Step 8. After few minutes of drying, a small hole is cut with the help of scissors on top of the oval live structure, where coconut shell does not obstruct.

Step 9. Coir is rolled to get a thin twine and is bordered for the small opening that is made and the coir bird nest is completed.



MAKING HANDMADE SHEET

Supplies:

- Paper scraps
- Water
- Muslin Cloth – 2
- Paper Recycling Kit

Making paper is a simple process. You can make eco-friendly handmade paper with a few simple supplies and this simple activity.



- Cut and grind your paper into small pieces first.
- Soak your paper in water overnight. Experiment with different colour schemes. Remember, no plastic is allowed, only paper.
- Make use of a wooden recycling kit (it consist of 3 Parts : A Mould, A Mesh and a deckle)



- Cover the Mesh with muslin cloth.



- Cover it with the deckle / frame it



- Pour your pulp on top. To make the slurry uniform, give it a quick shake right and left.
- Allow the water to drip to a stop.
- Remove the deckle now.
- Apply another muslin cloth with no force to the pulp.
- Now use the mould and place it over the cloth.



- Make sure the edges are well pressed.
- Carefully hold the below portion and slide the mould gently.
- Remove the muslin cloth and set it aside to dry.



PAPER IS READY!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

PAPER AUDIT

Paper comes from trees. Every year thousands of trees are cut just for paper. It becomes a cause for environmental degradation.

Children are sensitised towards reducing the use of paper wherever possible through this paper audit. *Paryavaran Snehi* will guide the *Paryavaran Sanrakshak* about the judicious use of paper and discuss the paper audit proforma with them. *Paryavaran Sanrakshak* will guide the *Kagaz Sanrakshak* (Paper Monitor) of all the classes about the paper audit proforma which is to be filled by all *Paryavaran Preharis*.

S. No.		Yes/No	For every Yes give a star
1	I have numbered the pages of my notebook.		
2	I do not tear off pages from my books or notebooks.		
3	I reuse paper (for origami, geometrical shapes etc.).		
4	I completely fill the page of my notebook for doing classwork/homework.		
5	I use slate for practice work.		
6	I cover the books/notebooks with newspaper.		
7	I use cloth/ jute bag instead of a paper bag.		
8	I use old books.		
9	I prefer reading e-books.		
10	I am always on lookout for more opportunities to learn about reduce, reuse and recycle my paper.		

Score card:

- ♦ Four stars or less - You need to be more cautious and learn about paper conservation.
- ♦ Five - Eight stars - You are doing good but more efforts are required.
- ♦ Nine or more stars - Excellent! Keep doing the same and do promote your best practices with your peer.

Note: *Paryavaran Preharis* to do self paper audit every six months and share it with their peers.

ENERGY AUDIT

Energy Audit is the verification, monitoring, and analysis of energy use.

The energy audit process comprises of identification of

- Energy consuming devices.
- Determining the rate of energy consumption by these devices.
- Calculating the energy consumption in a day / month.

Paryavaran Snehi will explain about the energy audit procedure to *Paryavaran Sanrakshak*, who in turn will identify the energy consuming devices in the school with *Urja Sanrakshak* (Energy Monitor). Once the energy-consuming devices are established, the *Urja Sanrakshak* will enable the *Paryavaran Preharis* to find out the electric load of the connected devices and conduct energy audit as per the table given below.

The energy load could be determined by looking at the nameplate data of the devices and finding out the power input in W/kW.

Category	Appliances	Capacity (Watt) (a)	Total Number of fixtures (b)	Number of operating hours (hr) in a day (c)	Consumption in a day [(a*b*c)/1000] (kWhr) (d)	Consumption in a month (Number of day appliance is used in a month) (e)
Cooling Appliances	Room Air conditioner					
	Water cooler					
	Air cooler					
	Ceiling fan					
	Table fan					
	Pedestal fan					
	Exhaust fan					
	Refrigerator					

Category	Appliances	Capacity (Watt) (a)	Total Number of fixtures (b)	Number of operating hours (hr) in a day (c)	Consumption in a day [(a*b*c)/1000] (kWhr) (d)	Consumption in a month (d* Number of day appliance is used in a month) (e)
Lighting lamps	Incandescent bulbs					
	Fluorescent bulbs					
	Slim tubes					
	Compact Fluorescent bulbs (CFL)					
	Tube light					
	LED bulbs					
Heating Appliances	Geyser					
	Electric kettle					
	Electric oven					
	Microwave oven					
	Induction Stove					
	Coffee machine					
Other Gadgets	Computer/Laptop					
	Television					
	Printer					
	Photocopiers					
	CCTV Camera					
	Other Lab equipment					
Total units consumed per month						

Conclusion: Once the baseline consumption is known, the *Urja Sanrakshak* can estimate the reduction in energy consumption. Energy Audit will help identify options for reducing energy consumption and thus pave the way to save money and the environment.

WATER AUDIT

Water audit is the process to identify various essential uses of water and processes where there is unnecessary water wastage. This helps to understand various water consumption patterns and identify possible solution for better management of water.

Paryavaran Snehi will explain about the Water Audit to *Paryavaran Sanrakshak*, who in turn will identify the various activities requiring water at home with *Jal Sanrakshak* (Water Monitor). Once the water requiring activities are listed, the *Paryavaran Snehi* will share the list of activities in which water is consumed.

Paryavaran Preharis will be asked by *Jal Sanrakshak* to find out water consumption at home by their family. *Jal Sanrakshak* will consolidate the data of the class and identify water consumption pattern with the help of *Paryavaran Sanrakshak* as per the format. *Paryavaran Snehi* will discuss the water consumption pattern and identify solutions to minimize water wastage.

S. No.	Activities	Amount of water consumed per person (litre)	Amount of water consumed by a family of 3/4/5/.. (litre)	Water that could be saved (litre)
1	Drinking			
2	Cooking			
3	Washing hands			
4	Washing dishes			
5	Toilet			
6	Brushing teeth			
7	Bathing			
8	Washing clothes			
9	Floor cleaning			
10	Watering plants			
Total amount of water used				

WAYS TO SAVE WATER

1. Leakage-free system at home
2. Avoid shower for bathing, use bucket and mug for bathing
3. Turn off the water while brushing
4. Water left after washing clothes may be utilised for floor cleaning and toilets
5. Use a watering can to water plants
6. Leftover water in water bottles brought back from school and can be used for watering the plants.
7. Any other suggested by students

Eco-club

1. Name of School
2. School ID
3. Name of HoS
4. Contact Number of Hos
5. School Email ID
6. Name of Eco-club Incharge/Paryavaran Snehi
7. Designation
Mark only one box.
☐ PGT
☐ TGT
☐ PRT
☐ Lab Assistant
8. Eco-club Paryavaran Snehi Contact Number
9. Eco-club/Paryavaran Snehi Email ID
10. Name of Eco-club (if any)

11. Since when are you Eco-club Paryavaran Snehi?

Mark only one box.

☐ < 1 year

☐ 1-3 year

☐ > years

12. Total number of Paryavaran Preharis for Eco-club activities in each class

Mark only one box.

☐ Less than 30

☐ 30

☐ 40

☐ More than 40

13. Total number of activities taken under Eco-club in an academic year

14. Do you have Eco-club monitors in every class?

Mark only one box.

☐ Yes

☐ No

15. Have you made badges for the Eco-club Paryavaran Sanrakshak and Paryavaran Monitor?

Mark only one box.

☐ Yes

☐ No

16. Do you conduct at least one meeting in a month to overview the activities done under Eco-club and discuss the problems (if any)

Mark only one box.

☐ Yes

☐ No

17. Which of the activities were performed by the school in the academic year?

(i) The activities were

Check all that apply.

☐ Easy to perform

☐ Interesting

☐ Good Learning

☐ Reflected in the behaviour of Paryavaran Preharis

(ii) Is there any activity which could not be performed?

Mark only one box.

☐ Yes

☐ No

(iii) The activity could not be performed because of

Mark only one box.

☐ Time paucity

☐ Difficult to perform

☐ Material not easily available

☐ Age group not appropriate

(iv) Any suggestive activity which Paryavaran Snehi would take to introduce

18. What problems did Paryavaran Snehi face while conducting Eco-club activities?

19. Do you involve other stake holders in the Eco-club activities?

Check all that apply.

- ☐ Parents
- ☐ SMC
- ☐ Alumni
- ☐ Neighborhood Community (Residents/Market Association)
- ☐ Other

20. Do you involve other teachers in Eco-club activities? if not, why?

Varun Mahal, Defence Colony, New Delhi-110034
State Council of Educational Research and Training

