

ACTIVITY SHEETS- "EARTH CANNOT DIGEST PLASTICS"

COUNTRY :

NAME OF THE SCHOOL:

NAME OF THE STUDENT:
















GRADE:

Activity 1: Calculate your Plastic Foot Prints!!

List the Plastic items that you use everyday/weekly



Now, it is time for you to start cutting out on plastic. While recycling is important but it is not a perfect process. It can never be done efficiently. Remember, recycled plastic will always end up in the landfills regardless of the bin they were put in. Calculate the plastic waste that you and your family generate every week.

ITEM	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	TOTAL PER WEEK
Plastic bottles 								
Plastic cups 								
Straws 								
Plastic Cling Films 								
Plastic plates 								
Food container 								
Food packaging 								
Plastic grocery bags 								
Medicine bottles 								
Diapers 								
Yogurt pots 								
Plastic juice bottles 								
Plastic bags 								
Plastic spoons 								
Other Plastics 								

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Activity 2: Small Plastics, Big Problems!!

Understanding Micro Plastics and finding solutions to it.



Understanding the Problem:

Q1. Why is there so much plastic in the ocean? Where does it come from?

Q2. What are things that you can personally do to prevent plastic litter from polluting the ocean?

Q3. What are micro Plastics?

Q4. How do micro Plastics get it into the ocean?

Q5. What is the Problem with the micro plastic?

Q6. Is there any Microbe that can reduce the micro plastic and break it down into completely consume it.

Finding Solution to the Problem:

Q1. What solutions did your group decide for reducing micro plastics in the oceans?

Q2. What makes you choose this particular solution?

Q3. What evidence does not support your solution?

Q4. Costs of your solution:

Q5. Benefit of your solution:

Q6. Is your Solution Sustainable?

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Activity3: Suggest some activities that you can carry out on every day basis that reminds you of 5 R's- Rethink, Refuse, Reduce, Reuse and Recycle.

Rethink -

Refuse-(Example)
I refuse to use plastic Cups

Reduce-

Reuse-

Recycle-

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Activity4: It's time to Collaborate!

Earth cannot digest Plastic- Record Your Responses in the following Padlets and Share your Ideas

1. Suggest some Practical ways to reduce plastic Pollution

Source: https://padlet.com/m_sukhija/ercala3ecbdp

2. Refuse single Use Plastic

Source: https://padlet.com/m_sukhija/34cp99q2nf3c

3. Innovative ideas to deal with Plastic Waste

Source: https://padlet.com/m_sukhija/innovation

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Activity 5: Read the inspiring Story of Afroz Shah, from India who made all the difference!!

NEWS INDIA

NEWS INDIA | JUNE 15, 2016

From garbage dump to garden of Eden: How locals transformed one of Mumbai's dirtiest beaches

With the population explosion and increasing commercialization, our beaches are gradually turning into a dump yard with trash and garbage all around putting the marine life under a great threat.

However, in one of its kind efforts, Afroz Shah showed the world that just sitting within closed spaces and making policy decisions for an environmentally sustainable future will not solve the problem. The need of the hour is to take concrete measures which means actually going to the ground, digging your hands in the dirt and separating the plastic from the sand. Supported by his 84-year-old neighbour, Harbansh Mathur, the duo began clearing the 2.5-km strand of litter, including plastic bags, cement sacks, glass bottles, pieces of clothing, and shoes. Within a month's time, they were joined by another 40 residents of Versova and began a weekly clean-up drive.

Slowly but steadily, the clean-up drive transformed into a movement. Over the subsequent six months and it paved the way for



This lawyer spearheaded the world's biggest beach clean-up at 'Versova'

the inception of the Versova Residents' Volunteers (VRV), a body headed by Shah. The Herculean efforts of Mr. Shah were well recognized and appreciated as he was conferred with the UN's top environmental accolade - Champions of the Earth award, at Cancun in Mexico last December.

Nature too rewarded his efforts as more than 80 Olive Ridley baby turtles were spotted waddling across the sand of Versova Beach in Mumbai. It had been decades since the turtles were last seen on the beach. Their return continues a migratory journey that has been going on for centuries but was hindered because of increasing water pollution.

Question time:

Q1. What is the profession of Afroz Shah?

Q2. Which beach did he clean with help of volunteers?

Q3. What environmental accolade was awarded to Shah by United nation for Cleaning up Versova Beach?

Q4. Which marine Animals were spotted waddling across the sand of Versova Beach in Mumbai after the clean up action led by Shah?

Q5. Find out how much tons of plastic waste was collected from this beach of Mumbai?

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Activity 6: Meet the Professor Who Pioneered the Technique of Making Roads From plastic Waste.

NEWS INDIA

NEWS INDIA | JANUARY 16, 2017

Roads Made of Plastic Waste in India? Yes! Meet the Professor Who Pioneered the Technique.



Plastic waste strewn all over is one of the biggest challenges facing mankind today simply because there is no way to dispose it off. Plastic waste clogs drains, causing floods. It chokes animals, blocks germination and prevent rainwater absorption.

Prof. Rajagopalan Vasudevan,

Professor of Chemistry at Thiagarajar College of Engineering, Madurai also known as the 'Plastic Man' of India, developed a novel idea of using this plastic waste for the construction of roads. A simple and cost effective technique, the process includes heating of waste plastic with bitumen and coating the

mixture over stone. Prof. Vasudevan implemented the use of plastic waste on a road constructed inside the premises of his college in 2002.

"The advantages of using waste plastics for road construction are many. The process is easy and does not need any new machinery. Plastic increases the aggregate impact value and improves the quality of flexible pavements. Wear and tear of the roads has decreased to a large extent," explains the proud Plastic Man of India.

This road construction process is extremely eco-friendly, with no toxic gases being released. Validating the efforts of Dr. Vasudevan, the Government has made it mandatory for all road developers in the country to use waste plastic, along with bituminous mixes, for road construction. This is to help overcome the growing problem of plastic waste disposal in India.

Question time:

Q1. What are the advantages of making roads from Plastic?

Q2. Do you think we can get rid of the plastic by reusing it in this way?

Q3. What all ingredients you need to prepare the raw material for making the roads?

Q4. Find out how many countries in the world are already using this technique?



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Sources:

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